

INDC International Nuclear Data Committee

TABLE OF NUCLEAR MAGNETIC DIPOLE AND ELECTRIC QUADRUPOLE MOMENTS

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ABSTRACT

This Table is a compilation of experimental measurements of static magnetic dipole and electric quadrupole moments of ground states and excited states of atomic nuclei throughout the periodic table. To aid identification of the states, their excitation energy, half-life, spin and parity are given, along with a brief indication of the method and any reference standard used in the particular measurement. The literature search covers the period to early 2014. Many of the entries prior to 1988 follow those in Raghavan P., Atomic and Nuclear Data Tables 42, 189 (1989).

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February 2014

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INTRODUCTION

This Table comprises a listing of measured magnetic dipole and electric quadrupole moments of ground states and excited states of atomic nuclei. Results obtained by all experimental methods are included and the literature search covers the period to early 2014. The Table includes many listings from the two most recent previous compilations [1,2], mainly without change, but amended where appropriate. To assist in definitive identification of the nuclear state involved, the table includes the energy (in keV), half-life, and spin/parity of the state, taken either from the authors or from recent compilations. The Table follows its predecessors in listing also any reference isotope and state involved in extraction of the quoted moment from experiment. The method used in the experiment is given, although for all details of the method reference should be made to the original publication. References are given in the Table in the Nuclear Science References (NSR) keyword format and a full listing of authors and journal references follows the Table. A listing of abbreviations used to identify methods is given following the explanation of the Table. Some comments on the results are made using abbreviations given in the Table entry. The abbreviations used for these comments are also listed following the explanation below.

POLICIES

Signs

Signs are given when the sign can be determined from experimental data. Where the sign is not given by the measurement, no sign is given in the Table, although it can sometimes be inferred either from systematics or from the magnitude of the result.

Results and Uncertainties

Experimental values and their associated errors are as given by the authors subject to a policy of limiting significant figures. Numerical errors with digits above 15 have in most cases been rounded to 2 and results have been rounded to give no more significant figures than the rounded error would allow. Thus a published value 0.953(65) has been rounded to 0.95(7) and 0.25(16) rounded to 0.3(2).

Magnetic Dipole Moments

The fundamental reference is to the adopted proton moment +2.79284734(3) nuclear magnetons (nm), after diamagnetic correction, based on the most recent recommended values for physical constants [3]. This has been revised downward since the last compilation [2] by 0.018 ppm. Other subsidiary dipole moment standards are set using high precision experimental ratios of nuclear magnetic resonance frequencies for heavier stable nuclei (^{11}B , ^{14}N , ^{35}Cl , ^{45}Sc , ^{111}Cd), and from optical pumping frequency for ^{199}Hg , compared to that of the proton or deuteron. References to these are given where they appear in the Table.

Corrections for diamagnetism, Knight shift, paramagnetism and hyperfine anomaly are noted by annotations “d, K, p,” or “ha,” respectively after the entry when they have been taken into consideration by authors, either by explicit correction or by allowance in quoted uncertainties.

The diamagnetic correction merits further comment. This correction is applicable under any circumstance that a magnetic field is applied to the nucleus under study and the nucleus is situated in a medium subject to diamagnetism - that is all media other than vacuum. Diamagnetism describes the polarization of the medium whereby the field as experienced by the nucleus is reduced. This effect leads to a reduction in the magnetic dipole interaction energy and an apparent reduction in the nuclear magnetic dipole moment if the full applied magnetic field strength is used without correction.

Many experimental methods use “internal” or “transient” fields produced by electrons in the vicinity of the nucleus. Such internal fields are determined through their measured interaction energy with nuclei having known magnetic dipole moments. They are not subject to diamagnetic correction, although they do require correction for any hyperfine anomaly between the isotope used for calibrating the field and the isotope under study. However, if there is any additional external applied field used then this component of the total field at the nucleus is subject to the diamagnetic correction.

Several previous tabulation compilers have apparently applied diamagnetic corrections and have included listings of diamagnetic correction factors due to Johnson and co-workers [4]. It should be stressed that the tabulated corrections apply only to neutral atoms, assumed spherical, and are not generally applicable e.g. to nuclei implanted into planar non-magnetic foils and subject to applied magnetic fields. All post-1989 magnetic moment entries in the Table are unmodified published values.

Electric Quadrupole Moments

These are listed in units of barns ($1 \text{ b} = 10^{-28} \text{ m}^2$). Corrections relating to electric field gradient shielding caused by polarization of atomic electrons, normally known as Sternheimer Corrections, are indicated by the annotation “st” after the entry. The Sternheimer correction, which can be positive (shielding) or negative (anti-shielding) and can be large, is difficult to calculate with high accuracy, even for different states of the same atom or ion. This is the cause of several apparently large discrepancies between reported, uncorrected, electric quadrupole moments listed in the Table.

Where two values of Q are given based on CER experiments, the first represents the value assuming constructive interference between the matrix elements and the second assumes destructive interference.

A list of single ‘recommended’ quadrupole moment values has been recently published which attempts to ensure, as far as possible, that all results for each element are consistent with the best electric field gradient calculation for that element [2013StZZ, IAEA Rept INDC(NDS)-0650].

ACKNOWLEDGEMENTS

The author acknowledges help and advice from many fellow scientists in the field of hyperfine interactions and nuclear moments during the preparation and checking of this Table. The Table could not have been produced without extensive assistance at various stages of production by

staff of the National Nuclear Data Centre, Brookhaven National Laboratory, in particular Charles Dunford, Tom Burrows and David Winchell and, more recently, Boris Pritychenko and Joann B. Totans. The Nuclear Data Project at the Oak Ridge National Laboratory provided the library in which much of the 2005 listing work was done, with help from Murray Martin and Mary Ruth Lay. Computing assistance from Chiara Mazzocchi was very helpful at a vital stage. Finally thanks are due to the late Richard A. Meyer who initiated the undertaking, and to Jirina Rikovska Stone for her unfailing assistance and encouragement.

REFERENCES FOR THE INTRODUCTION

1. N.J. Stone, *At. Data Nucl. Data Tables* **90** (2005) 75.
2. P. Raghavan, *At. Data Nucl. Data Tables* **42** (1989) 189.
3. P. J. Mohr and B.N. Taylor, *Rev. Mod. Phys.* **72** (2000) 351
4. W. R. Johnson, Dietmar Kolb, K.-N. Huang, *At. Data Nucl. Data Tables* **28** (1983) 333 and references therein.

EXPLANATION OF THE TABLE

The Table gives information as follows:

| | |
|-------------------|---|
| Nucleus | Identifies the nucleus by mass number A and atomic number Z , with its chemical symbol. This is given once for each nucleus. Nuclei are grouped by element in increasing sequence of atomic number and by increasing mass number for each element. |
| $E(\text{level})$ | Gives the energy of the state on which the measurement is made, rounded to the nearest kilovolt, 0 being the ground state. Where placement of the level with respect to the ground state is unknown, this is denoted by addition of an offset x or y . |
| $\tau_{1/2}$ | Gives the half-life τ of the state: Units y = years, d = days, h = hours, m = minutes, s = seconds, ms = milliseconds (10^{-3} s), μs = microseconds (10^{-6} s), ns = nanoseconds (10^{-9} s), ps = picoseconds (10^{-12} s) and fs = femtoseconds (10^{-15} s). |
| I^π | Gives the spin (I) and parity (π) of the state. Uncertain values are given in brackets. Where the measurement was made on unresolved states, the average spin is given as I_{av} . |
| $\mu(nm)^*$ | Gives the measured nuclear magnetic dipole moment μ in units of the nuclear magneton μ_N (nm). No sign is given if it was not determined by the experiment. The uncertainty in the result is given in brackets, subject to the policy declared in the introduction. Thus 1.432(8) means a value of 1.432 nm with uncertainty 0.008 nm and of unknown sign. In some cases, where the spin of the level is unknown, the nuclear g -factor, $g = \mu/I$ is given. Where several states were unresolved, the average g -factor is given as g_{avge} . An entry of the form g_{6+}/g_{2+} gives the ratio of the g -factors of two states in a band. For high spin bands in even-even nuclei in some cases the spin dependence of the g -factor is approximately given by $g(I) = g_o[1 + \alpha I^2]$, where I is the spin of the state and $g_o \sim g_{2+}$. The fitted value of α is given. |
| $Q(b)^*$ | Gives the measured nuclear electric quadrupole moment Q in units of the barn (1 barn = 10^{-28} m ²). No sign is given if it was not determined by the experiment. The uncertainty in the result is given in brackets, subject to the policy declared in the introduction. Thus +1.27(10) means a value of +1.27 barns with uncertainty 0.10 barns. |
| Ref. Std. | In this column the reference standard upon which the listed result depends is given. Often the reference state has been used to obtain the value of a static magnetic field or an electric field gradient which is then used to determine the quoted result. Any subsequent change in the value of the standard will affect the listed result. |
| Method | The method used in the measurement is briefly identified here. A list of abbreviations used is given below. In view of the great proliferation of specialized |

methods, this method description is limited and for detailed information reference should be made to the original publication. Where there has been re-evaluation, by the tabulator or by subsequent referenced authors, of the original referenced result, usually associated with change to the reference standard, this is denoted by R.

References The NSR keyword reference is given. A complete listing of references follows the Table. In the few cases where no NSR keyword has been assigned, or it is not known, the same format has been used with last two digits replaced by '99' and the reference included in the listing

* Certain entries have additional annotations relating to whether or not specific corrections have been made. These annotations are discussed under the magnetic dipole moment and electric quadrupole moment sections of the policies given above. The abbreviations used are given below.

List of annotations

| | |
|----|--|
| a | Requires no Sternheimer correction. |
| d | Corrected for diamagnetism. |
| e | No estimate of uncertainty given by authors. |
| K | Corrected for Knight shift. |
| p | Corrected for paramagnetism |
| st | A Sternheimer shielding correction has been made by the authors |
| # | This result uses an estimated hyperfine field with no error given. |

Experimental Method Abbreviations

| | |
|-----------------|--|
| AB | Atomic beam magnetic resonance |
| AB/D | Atomic Beam Magnetic Resonance (direct moment measurement) |
| ABLDF | Atomic beam with laser double resonance detection |
| ABLFS | Atomic beam with laser fluorescence spectroscopy |
| ABLS | Atomic beam laser spectroscopy |
| β -NMR | NMR of in-beam polarized nuclei with beta asymmetry detection |
| β -NMR/OP | NMR of nuclei polarised by optical pumping with beta asymmetry detection |
| β -NNQR | Nuclear Quadrupole Resonance with beta detection |
| B(E2) | Value based on measured E2 transition probability |
| BFNO | Brute Force Nuclear Orientation |
| BFNMR/ON | Nuclear Magnetic Resonance on Brute Force Oriented Nuclei |
| CDPAC | Constant-Delay Perturbed Angular Correlation |
| CEAD | Integral Perturbed Angular Distribution after Coulomb Excitation |

| | |
|---------------------|--|
| CER | Coulomb Excitation Reorientation |
| CERP | Precession of Coulomb Excitation Reorientation |
| CETD | TDPAD following Coulomb Excitation |
| CFBLS | Collinear Fast Beam Laser Spectroscopy - Accelerated Beam |
| CFBLS/ β -NMR | Collinear Fast Beam Laser Spectroscopy: NMR with beta detection |
| CIAN | Coulomb Interaction of Aligned Nuclei |
| CLS | Resonance Cell Laser Spectroscopy. Also Collinear Laser Spectroscopy |
| CRDTF | Coincident Recoil Distance Transient Field |
| ENDOR | Electron-nuclear Double Resonance |
| EPR | Electron Paramagnetic Resonance |
| ES | Electron Scattering |
| FDPAC | Time Differential Perturbed Angular Correlation of Fission Fragments |
| GCLS | Gas Cell Laser Spectroscopy |
| IAPAD | Integral Attenuation of Perturbed Angular Distribution |
| IBSQB | Quantum Beats after Surface Interaction at Grazing Incidence |
| IPAC | Integral Perturbed Angular Correlation |
| IPAD | Integral Perturbed Angular Distribution |
| IMPAC | Perturbed Angular Correlation after Ion Implantation |
| IMPAD | Perturbed Angular Distribution after Ion Implantation |
| ISLS | In Source Laser Spectroscopy |
| Ka-X | Kaonic X-ray Hyperfine Structure |
| LEMS | Level Mixing Spectroscopy |
| LMDR | Laser Microwave Double Resonance |
| LMR | Level Mixing Resonance on Oriented Nuclei |
| LRDRS | Laser RF Double Resonance Spectroscopy |
| LRFS | Laser Resonance Fluorescence Spectroscopy |
| LRIMS | Laser Resonance Ionisation Mass Spectroscopy |
| LRIS | Laser Resonance Ionisation Spectroscopy |
| LRS | Laser Resonance Spectroscopy |
| LRSRD | Laser Resonance Spectroscopy with Radioactive Detection |
| MA | Microwave Absorption in gases |
| MAPON | Modulated Adiabatic Passage NMR on Oriented Nuclei |
| MB | Molecular Beam Magnetic Resonance |
| MCHF | Multiconfigurational Hartree Fock calculated efg's used to extract Q |
| ME | Mossbauer Effect |
| M/N | Maser/Nuclear Magnetic Resonance frequency comparison |

| | |
|-------------------|--|
| MS | Molecular Spectroscopy |
| Mu-X | Muonic X-ray Hyperfine Structure |
| N | Nuclear Magnetic Resonance |
| NMR | Nuclear Magnetic Resonance |
| NMR/AC | Nuclear Magnetic Resonance detected using Angular Correlation |
| NMR/AD | Nuclear Magnetic Resonance detected using Angular Distribution |
| NMR/ME | Nuclear Magnetic Resonance detected using the Mossbauer Effect |
| NMR/ON | Nuclear Magnetic Resonance on Oriented Nuclei |
| NMR/ON(β) | Nuclear Magnetic Resonance on Oriented Nuclei with beta detection |
| NMR/ON(X) | Nuclear Magnetic Resonance on Oriented Nuclei with X-ray detection |
| NMR/OP | NMR detected using Optically Pumped Ions |
| NMR/OP(β) | NMR using Optically Pumped Ions with beta detection |
| NO/CP | Gamma Circular Polarisation measured from Oriented Nuclei |
| NO/ME | Mossbauer Effect on Oriented Nuclei |
| NO/S | Static Nuclear Orientation with gamma detection |
| NO/ β S | Static Nuclear Orientation with beta detection |
| NO/D | Dynamic Nuclear Orientation |
| O | Optical Spectroscopy |
| OD | Optical Double Resonance |
| OGLS | Optogalvanic Laser Spectroscopy |
| OL | Optical Level Crossing |
| OP/ β -NMR | Optical Pumping with NMR using beta detection |
| OP/RD | Optical Pumping with Radiative Detection |
| PhPi | Pion Photoproduction near threshold |
| Pi-X | Pionic X-ray Hyperfine Structure |
| PMR | Paramagnetic Resonance |
| PPDAC | Perturbed Polarisation-Directional Angular Correlations |
| PPR | Proton Pick-up Reaction: Spectroscopic Factors |
| Q | Quadrupole Resonance |
| QI-NMR/ON | Quadrupole Interaction Resolved NMR on Oriented Nuclei |
| QIR | Quadrupole Interaction deduced from Relaxation Time |
| R | Re-evaluated data, or (for revised reference standard) adjusted by tabulator |
| RENO | Reorientation Nuclear Orientation |
| RIGV | Recoil into gas or vacuum |
| RIV/D | Recoil into Vacuum, Differential method |
| SOPAD | Stroboscopic Observation of Perturbed Angular Distribution |

| | |
|---------|--|
| TDPAC | Time Dependent Perturbed Angular Correlation |
| TDPAD | Time Dependent Perturbed Angular Distribution |
| TF | Transient Field integral perturbed angular correlation |
| TFL | Tilted Foil hyperfine field integral perturbed angular correlation |
| TFLD | Tilted Foil Time Differential Perturbed Gamma Angular Distribution |
| TIS | Trapped Ion Spectroscopy |
| TLS | Trap Laser Spectroscopy |
| TR/OLNO | Time Resolved On-Line Nuclear Orientation |
| XHFS | X-ray Hyperfine Shift |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|------------|----|---------|------|---|--|---|---|---|---|
| 0 n 1 | 0 | 10.6 m | 1/2+ | -1.9130427(5) d | | | N,R | 2000Mo36 | RMP 72 351 (00) |
| 1 H 1 | 0 | stable | 1/2+ | +2.79284734(3) d | | | M/N,R | 2000Mo36 | RMP 72 351 (00) |
| antiproton | 0 | - | 1/2+ | -2.7862(83) | | | HFS | 2011Fr10 | HFI 199 337 (11) |
| 1 H 2 | 0 | stable | 1+ | +0.857438228(9) d +0.857438240(12) d | | [1H] | N,R | 2000Mo36 | RMP 72 351 (00) |
| | | | | | +0.00286(2) 0.0028(2) | [1H] | N MB,R CIAN | 2005KA25 1979Bi14 1985Ka05 | Can.J.Phys. 83 405 (05) PR A20 381 (79) NP A435 502 (85) |
| 1 H 3 | 0 | 12.33 y | 1/2+ | +2.97896244(4) | | [1H] | N,R | 1977Ne16 | ZETF 72 1659 (77) |
| 2 He 3 | 0 | stable | 1/2+ | -2.12749772(3) | | [1H] | N,R | 2000Mo36 | RMP 72 351 (00) |
| 3 Li 6 | 0 | stable | 1+ | +0.8220473(6) +0.822567(3) | | [2H] | AB/D N | 1974Be50 1968LU07/1967LU06/ 1954WA37 | ZP 270 173 (74) ZNat 23a 1202 (68)/PL A25 440 (67)/ PR C72 044309 (05) |
| | | | | | -0.000806(6) -0.00082(2) a -0.00083(8) st | R [7Li] [7Li] | R MB,R MB,R | 2005BO45 1998Ce04 1984Su09 | PR C72 044309 (2005) PR A57 2539 (98) CPL 112 1 (84) |
| 3 Li 7 | 0 | stable | 3/2- | +3.256427(2) +3.2564625(4) | | [2H] | AB/D N | 1974Be50 1968LU07/1967LU06 | ZP 270 173 (74) ZNat 23a 1202 (68)/PL 25A 440 (67) |
| | | | | | -0.0403(4) -0.0400(3) -0.0406(8) a -0.0406 st -0.0370(8) -0.041(6) -0.059(8) -0.040(11) -0.0400(6) -0.0400(3) -0.0406(8) | R R MB,R MB,R CIAN OD,OL OL CER CER CER R | R R MB,R MB,R CIAN OD,OL OL CER CER CER R | 2011Av08 2008Py02 1998Ce04 1984Su09 1985We08 1975Or01 1978Na22 1984Ve03/1984Ve08 1991Vo06 1991Vo06 1989Ba80 | JPhys G38 075102 (11) Mol.Phys. 99 1617 (01) PR A57 2539 (98) CPL 112 1 (84) PRL 55 480 (85) ZP A273 221 (75) PR A17 1394 (78) PL B138 365 (84)/AuJP 37 273 (84) NP A530 475 (91) NP A530 475 (91) AuJP 42 597 (89) |
| 3 Li 8 | 0 | 842 ms | 2+ | +1.65356(2) | | [1H] | β -NMR | 1978Wi13/1962Co08 | PL A67 423 (78)/PR 126 1506 (62) |
| | | | | | 0.0326(5) 0.0314(2) 0.0317(4) 0.0287(7) 0.0327(6) | [7Li] R [7Li] [7Li] [7Li] | β -NQR β -NMR β -NMR CFBLS/ β -NMR β -NQR | 2011Vo08 2005BO45 1977Du06 1988Ar17 1992Mi18 | JPhys G38 075102 (11) PR C72 044309 (05) ZP A282 243 (77) ZP A331 295 (88) PRL 69 2058 (92) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) sign positive | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|---------|------|---------|------|-----------------|-----------------------|-------------|---------------------|-----------------------------------|-----------------------------------|--|
| | | | | | | [6,7Li] | NMR | 1994Ja05 | NP A568 544 (94) | |
| 3 Li 9 | 0 | 178 ms | 3/2- | 3.43678(6) | | [8Li] | β -NMR | 2005BO45 | PR C72 044309 (05) | |
| | | | | 3.4391(6) | | [1H] | β -NMR | 1983Co11 | PR C28 862 (83) | |
| | | | | 3.434(5) | | [8Li] | CFBLS/ β -NMR | 1988Ar17 | ZP A331 295 (88) | |
| | | | | | -0.0304(2) | R | [7Li] | β -NMR | 2011Av08/2008Py02 | JPhys G38 075102 (11)/Mol Phys 106 1965 (2008) |
| | | | | | (-)0.0306(2) | | | β -NMR | 2005BO45 | PR C72 044309 (05) |
| | | | | | 0.0253(9) | | [7Li] | CFBLS/ β -NMR | 1988Ar17 | ZP A331 295 (88) |
| | | | | | 0.036(7) st | | [7Li] | β -NMR | 1983Co11 | PR C28 862 (83) |
| 3 Li 11 | 0 | 8.5 ms | 3/2- | +3.6712(3) | | [9Li] | β -NMR | 2008NE11 | PRL 101 132502 (08) | |
| | | | | 3.668(3) | | [8Li] | CFBLS/ β -NMR | 1987Ar22 | PL B197 311 (87) | |
| | | | | | (-)0.0333(5) | R | [9Li] | β -NMR | 2008NE11 | PRL 101 132502 (08) |
| | | | | | -0.035(5) | | | R | 2005BO45 | PR C72 044309 (05) |
| | | | | | -0.031(5) | | [7Li] | OP/ β -NMR | 1992Ma12 | PL B281 16 (92) |
| 4 Be 7 | 0 | 53.3 d | 3/2- | -1.39928(2) | | | LMDR | 2008OK01 | PRL 101 212502 (08) | |
| | | | | -1.398(15) | | [9Be] | LRIS | 98KaZN | ENAM AIP Conf Proc 455 110 (98) | |
| 4 Be 9 | 0 | stable | 3/2- | -1.177432(3) d | | | R | 1983It03 | PR B27 1906 (83) | |
| | | | | -1.1778(9) | | | N, OP/RD | 1976We17 | PL A56 446 (76) | |
| | | | | -1.17749(2) | | [1H] | N | 1949Di25/1951AI11 | PR 75 1769 (49)/PR 82 105 (51) | |
| | | | | | +0.0529(4) | R | R | 1991Su05 | CPL 177 91 (91) | |
| | | | | | +0.053(3) st | | AB | 1967BI09 | PR 153 164 (67) | |
| 4 Be 10 | 3368 | 0.14 ps | 2+ | | -0.08(7) | | CER | 2012Or05 | PR C86 041303(R) 2012 | |
| 4 Be 11 | 0 | 13.8 s | 3/2- | -1.6814(13) | | [8Li] | β -NMR | 98KaZN | NuoC 111 110 (98) | |
| | | | | -1.6816(8) | | [8Li] | β -NMR | 99Ge18 | PRL 83 3792 (99) | |
| 5 B 8 | 0 | 0.77 s | 2+ | 1.0355(3) | | | β -NMR | 1973Mi01 | JPJS 34 156 (73) | |
| | | | | 1.03579(5) d, K | | [12B] | β -NMR | 1996OhZY | ARO p71 (96) | |
| | | | | | +0.0643(14) | R | [11B] | β -NMR | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.0645(14) | | [12B] | β -NMR | 2004NA46/2006SU13 | HFI 159 269 (2004)/PR C74 024327 (06) |
| | | | | | 0.063(5) | | [11B] | β -NMR | 1990MaZA | ARO p48 (89) |
| | | | | | 0.068(2) | | [12B] | β -NQR | 1992Mi18 | PRL 69 2058 (92) |
| | | | | | 0.0646(15) | | [12B] | β -NQR | 1996OhZY | ARO p71 (96) |
| 5 B 10 | 0 | stable | 3+ | +1.80064478(6) | | [2H] | N,MB | 1939Mi05 | ZNat 30a 955 (75)/PR 56 165 (39) | |
| | | | | | +0.0845(2) | R | [11B] | AB | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.0847(6) st | | [11B] | AB, R | 1970Ne21 | PR A2 1208 (70) |
| | 718 | 0.69 ns | 1+ | +0.63(12) | | | IPAC | 1972Av01 | NP A182 359 (72) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|---------|------|---------|--------|------------------------------|---------------|-------------|--------------|-----------------------------------|--|
| 5 B 11 | 0 | stable | 3/2- | +2.6886489(10) | | [10B] | N, MB | 1975Ep02/1939Mi05 | ZNat 30a 955 (75)/PR 56 165 (39) |
| | | | | | +0.04059(10) | R | AB | 2008Py02/1970Ne21 | Mol Phys 106 1965 (2008)/PR A2 1208 (1970) |
| | | | | | +0.0407(3) | | AB, R | 1970Ne21 | PR A2 1208 (70) |
| 5 B 12 | 0 | 20.4 ms | 1+ | +1.00(2) | | | β -NMR | 2010Zn03 | Chin Phys Lett 27 022102 (10) |
| | | | | +1.00272(11) | | | β -NMR | 1990Mi16 | NP A516 365 (90) |
| | | | | +1.00306(+15/-14) | | | β -NMR | 1970Wi17 | PR C2 1219 (70) |
| | | | | | | | | 1972Wi08 | PR C5 1435 (72) |
| | | | | 1.000(3) | | | β -NMR | 2003Zh32 | ChinPL 20 1698 (03) |
| 5 B 13 | 0 | 17.4 ms | 3/2- | +3.1778(5) K,d +3.1778(5) | | [11B] | β -NQR | 1993Oh05 | HFI 78 185 (93)/HFI 80 1051 (93) |
| | | | | | 0.0132(3) | R | β -NMR | 1978Mi19 | HFI 4 224 (78) |
| | | | | | 0.0134(14) st | | | | |
| 5 B 14 | 0 | 13.8 ms | 2- | 1.185(5) | | [12B] | β -NMR | 1995Ok04 | PL B354 41 (95) |
| | | | | | 0.0297(8) | R | β -NMR | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.0298(8) | | β -NMR | 1996Iz01 | PL B366 51 (96) |
| | | | | | (+)0.0365(8) | R | β -NMR | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | positive sign | | β -NMR | 2004NA47 | HFI 159 273 (2004) |
| 5 B 15 | 0 | 10.3 ms | 3/2- | 2.659(15) | | [12B] | β -NMR | 1995Ok04 | PL B354 41 (95) |
| | | | | | 0.0379(11) | R | β -NMR | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.0380(11) | | β -NMR | 1996Iz01 | PL B366 51 (96) |
| | | | | | | | | | |
| | | | | | | | | | |
| 5 B 17 | 0 | 5.1 ms | (3/2-) | 2.55(2) | | [12B] | β -NMR | 1996Ue02 | PR C53 2142 (96) |
| | | | | | 0.0385(15) | R | β -NMR | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.0386(15) | | β -NMR | 2003OG03 | PR C67 064308 |
| 6 C 9 | 0 | 126 ms | 3/2- | 1.3914(5) | | | β -NMR | 1995Ma48 | NP A588 153c (95) |
| | | | | 1.396(3) | | | β -NMR | 1998Hu08 | PR C57 R2790 (98) |
| 6 C 11 | 0 | 20.4 m | 3/2- | -0.964(1) | | [13C] | AB, R | 1970Wo11 | ZP 236 337 (70) |
| | | | | | 0.0333(2) | R | AB | 2008Py02/1969Sc34 | Mol Phys 106 1965 (2008)/PR 181 137 (69) |
| | | | | | 0.032(2) st | | AB, R | 1969Sc34 | PR 181 137 (69) |
| 6 C 12 | 4438 | 45 fs | 2+ | | +0.06(3) | R | CER | 1983Ve01 | PL B122 23 (83) |
| 6 C 13 | 0 | stable | 1/2- | +0.7024118(14) | | [1H] | N | 1954Ro34 | PR 96 543 (54) |
| | 3854 | 8.5 ps | 5/2+ | 1.40(4) | | | RIV/D | 1981Ru04 | NP A359 442 (81) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|---------|------|---------|--------|----------------|------------------------|-------------|--------------|-----------------------------------|---|---------------------------------|
| 6 C 14 | 6728 | 67 ps | 3- | 0.82(2) | | | RIV/D | 1974Al07 | PR C9 1748 (74) | |
| 6 C 15 | 0 | 2.45 s | 1/2+ | 1.720(9) | | | β -NMR | 2002As06 | NP A704 88c (02) | |
| | | | | 1.32(7) | | | β -NMR | 1988AsZY | Bk88 NFFS 165 (88) | |
| | 739 | 2.61 ns | 5/2+ | 1.76(3) | | | RIV/D | 1980As01 | JP G6 251 (80) | |
| | | | | -1.92(15) | | | IPAC | 1975Ha42 | PL B59 32 (75) | |
| 6 C 17 | 0 | 193 ms | (3/2+) | 0.758(4) | | | β -NMR | 2002Og02 | EurPJ A13 81 (02) | |
| 7 N 12 | 0 | 11.0 ms | 1+ | 0.4571(1) | | | β -NMR | 2010ZN03 | Chin Phys Lett 27 022102 (10) | |
| | | | | 0.4573(5) | | | β -NMR | 1968Su05 | JPJa 25 1258 (68) | |
| | | | | | +0.100(9) | R | [14N] | β -NMR | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.0098(9) | | [14N] | β -NMR | 98Mi10 | PL B420 31 (98) |
| | | | | | +0.049(6) or -0.010(6) | | | PhPi | 1980Ra05 | YadF 31 334 (80) |
| | | | | 0.0103(7) | | [14N] | β -NQR | 94OhZY | ARO p60 (93) | |
| 7 N 13 | 0 | 9.96 m | 1/2- | 0.3222(4) | | [14N] | AB, R | 1964Be24 | PR 136 B27 (64) | |
| 7 N 14 | 0 | stable | 1+ | +0.40376100(6) | | [1H] | N | 1976Fu06/1951Pr02 | JPCR 5 835 (76)/PR 81 20 (51) | |
| | | | | | | | | 2008Py02/1993Sc26 | Mol Phys 106 1965 (2008)/PR A47 4891 (93) | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | 5106 | 4.3 ps | 2- | 1.32(8) | | | LRFS | 1993Sc26 | PR A47 4891 (93) | |
| | 5832 | 12.5 ps | 3- | 2.0(5) | | | LRFS | 1993Sc26 | PR A47 4891 (93) | |
| | | | | | | | IBSQB | 1980Wi22 | PR A21 581 (80) | |
| | | | | | | | MA,R | 1986Ha49 | ZNat 41a 163 (86) | |
| | | | | | | | RIV/D | 1978Mo27 | JP G4 1593 (78) | |
| | | | | | | | RIGV | 1989Ra17 | JPJS 34 185 (73) | |
| 7 N 15 | 0 | stable | 1/2- | -0.28318884(5) | | [14N] | N | 1962Ba63 | JCP 36 152 (62) | |
| | | | | 2.4(2) | | | RIV/D | 1983Bi10 | JP G9 1407 (83) | |
| | | | | +2.5(8) | | | IMPAC,R | 1978Za13 | HFI 5 347 (78) | |
| 7 N 16 | 0 | 7.13 s | 2- | 1.9859(11) d | | [12N] | β -NMR | 2001Ma42 | PRL 86 3735 (01) | |
| | | | | | | | | 2001Ma42 | PRL 86 3735 (01) | |
| | | | | | | | | 1984Bi03 | NP A413 503 (84) | |
| | | | | | | | | 1989Ra17 | ARWa p59 (84) | |
| | | | | | | | | 1975As02/1975Fo16 | JP G1 415 (75)/PR C11 1976 (75) | |
| | 293 | 91.3 ps | 3- | 1.60(6) | | R | β -NMR | 2001Ma42 | PRL 86 3735 (01) | |
| | | | | 1.50(8) | | | RIV/D | 1984Bi03 | NP A413 503 (84) | |
| | | | | -1.83(13) | | | RIV/D | 1989Ra17 | ARWa p59 (84) | |
| | 397 | 4.5 ps | 1- | | | | RIV/D | 1975As02/1975Fo16 | JP G1 415 (75)/PR C11 1976 (75) | |
| 7 N 17 | 0 | 4.17 s | 1/2- | 0.3551(4) | | | β -NMR | 2009DE34 | PR C80 037306 (09) | |
| | | | | 0.352(2) | | | β -NMR | 1996Ue02 | PR C53 2142 (96) | |
| 7 N 18 | 0 | 624 ms | 1- | 0.3273(4) | | | β -NMR | 2009DE34 | PR C80 037306 (09) | |
| | | | | | | | LMR | 1999Ne01 | PRL 82 497 (99) | |
| | | | | | | | β -NMR | 1999Og03 | PL B451 11 (99)/JP G24 1399 (98) | |
| | | | | | | | LMR | 1999Ne01 | PRL 82 497 (99) | |
| | | | | (-0.135(15) | | | | | | |
| | | | | 0.3279(13) | | | | | | |
| | | | | | +0.027(4) | R | | | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|---------|------|---------|------|----------------|-------------------------|-------------|----------------|-----------------------------------|---|
| | | | | | 0.0123(12) | [12N] | β -NMR | 1999Og03 | PL B451 11 (99)/JP G24 1399 (98) |
| 7 N 19 | 0 | 0.27 s | 1/2- | 0.305(15) | | | β -NMR | 2004Ka22 | NP A734 481 (04) |
| 8 O 13 | 0 | 8..6 ms | 3/2- | 1.3891(3) d, K | | [1H] | β -NMR | 1996Ma38 | HFI 97/98 519 (96) |
| | | | | | 0.0111(8) | R | β -NQR | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.0110(13) | | β -NQR | 1999Ma46 | PL B459 81 (99) |
| 8 O 15 | 0 | 122 s | 1/2- | 0.71951(12) c | | | β -NMR | 1993Ta28 | HFI 78 105 (93) |
| | | | | 0.7189(8) | | [17O] | AB | 1963Co17 | PR 131 700 (63) |
| | 5241 | 2.25 ps | 5/2+ | +0.65(7) | | | RIV/D, IMPAC | 1978Be73/1983Bi10 | HFI 4 181 (78)/JP G9 1407 (83) |
| | | | | <0.3(2) | | | TF | 1981De40 | HFI 9 507 (81) |
| 8 O 16 | 6130 | 18.4 ps | 3- | +1.668(12) | | | RIV/D | 1984As03 | JP G10 1079 (84) |
| | | | | | | | IMPAC | 1977Ka02 | NP A276 339 (77) |
| 8 O 17 | 0 | stable | 5/2+ | -1.89379(9) | | [2H] | N | 1951Al08 | PR 81 1067 (51) |
| | | | | | -0.0256(2) | R | EPR/R | 2008Py02/1969Sc34 | Mol Phys 106 1965 (2008)/PR 181 137 (69) |
| | | | | | -0.2576 e,st | | EPR,R | 1969Sc34 | PR 181 137 (69) |
| | | | | | -0.26(3) st | | EPR,R | 1957Ka01 | PPS 70B 897 (57) |
| 8 O 18 | 1982 | 2.07 ps | 2+ | -0.57(3) | | | RIV/D | 1976As04 | JP G2 477 (76) |
| | | | | | negative sign | | IPAD | 1975Fo03 | PL B55 56 (75) |
| | | | | | -0.036(9) | | CER,R | 1983Gr28 | NP A411 329 (83) |
| | | | | | -0.02(3) | | CER,R | 1981Sp07 | PRep 73 369 (81) |
| | | | | | -0.010(13) or +.020(13) | | CER | 1977Vo07 | PRL 39 325 (77) |
| | | | | | -0.07(3) or -0.05(3) | | CER | 1977Fl10 | PRL 39 446 (77) |
| | | | | | -0.11(2) or -0.08(2) | | CER | | ARMi 75 (78) |
| | | | | | -0.05(2) or -0.02(2) | | CER | 1979Fe06 | NP A321 457 (79) |
| | 3555 | 18 ps | 4+ | 2.5(4) | | [16O 6130] | RIGV | 1974Be63 | NP A235 410 (74) |
| 8 O 19 | 0 | 27 s | 5/2+ | 1.53195(7) c | | [17O] | β -NMR | 1999Mi16 | PL B457 9 (99) |
| | | | | | 0.00362(13) | R | β -NMR | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.0037(4) | | β -NMR | 1999Mi16 | PL B457 9 (99) |
| | 96 | 1.37 s | 3/2+ | -0.72(9) | | | IPAC | 1976Go09 | NP A262 214 (76) |
| 8 O 20 | 1674 | 7.4 ps | 2+ | 0.70(3) | | | RIV/D | 1980Ru01 | NP A344 294 (80) |
| | | | | -0.78(8) | | | IMPAC | 1976Ge01/1975Be15 | PL B60 338 (76)/NP A243 519 (75) |
| 9 F 17 | 0 | 64.5 s | 5/2+ | +4.7213(3) | | [12B] | β -NMR | 1993Mi33 | HFI 78 111 (93) |
| | | | | +4.7223(12) | | | β -NMR | 1966Su01 | JPJa 21 213 (66) |
| | | | | | 0.076(4) | [19F 197] | β -NMR/R | 2008Py02/1974Mi21 | Mol. Phys. 106 1965 (2008)/NP A236 416 (1974) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | | |
|----------|------|--------|---------|-----------------|----------|--------------------------|-----------------|-----------------------------------|---|--------------------------|-----------------------------------|---|
| 9 F 18 | 937 | 47 ps | 3+ | +1.6(2) | | | IMPAC | 1981St21 | JPJa 50 2804 (81) | | | |
| | | | | +1.77(12) | | | RIV/D | 1989Ra17 | Th Rowe (76) | | | |
| | | | | 1.7(2) | | | RIGV | ***** | HFI 4 183 (78) | | | |
| | 1121 | 153 ns | 5+ | +2.86(3) | 0.071(6) | R | TDPAD | 1967Sc09 | PL 24B 457 (67) | | | |
| | | | | | | | TDPAD/R | 2008Py02/1974Mi21 | Mol. Phys. 106 1965 (2008)/NP A236 416 (1974) | | | |
| | | | | | | | | | | | | |
| 9 F 19 | 0 | stable | 1/2+ | +2.628868(8) | | | N | 1952Li18/1964Ba11 | ArkF 4 1 (52)/PR 133 A1533 (64) | | | |
| | | 197 | 88.5 ns | 5/2+ | | | +3.607(8) | TDPAD | 1969Bi18 | NIM 67 169 (69) | | |
| | | | | | | | 3.595(13) | RIV/D | 1984As03 | JP G10 1079 (84) | | |
| | | 1346 | 2.9 ps | 5/2- | | | 0.67(11) | 0.0942(9) | R | calc efg | TDPAD/R | 2008Py02 |
| | | | | | | | RIV/D | 1983Bi03 | JP G9 293 (83) | | | |
| 9 F 20 | 0 | 11 s | 2+ | +2.09335(9) | | | β -NMR | 1996MiZW | ARO p44 (96) | | | |
| | | | | +2.0935(9) | | | β -NMR | 1967Gu14/1963Ts01 | YadF 6 657 (67)/PR 132 1141 (63) | | | |
| | | | | | | | 0.056(4) | R | [19F 197] | β -NMR/R | 2008Py02/1974Mi21 | Mol. Phys. 106 1965 (2008)/NP A236 416 (1974) |
| 9 F 21 | 0 | 4.16 s | 5/2+ | 3.9194(12) | | | β -NMR | 1999Mb13 | HFI 120/121 673 (99) | | | |
| | | | | 3.93(5) | | | β -NMR | 1993Ok02 | HFI 78 97 (93) | | | |
| | | | | | | | 0.11(2) | R | | β -NMR | 1999Mb13 | HFI 120/121 673 (99) |
| 9 F 22 | 0 | 4.2 s | 4+ | (+) $2.6944(4)$ | 0.003(2) | R | β -NMR | 2010MI13 | NP A834 75c (10) | | | |
| | | | | | | | β -NMR | 2010MI13 | NP A834 75c (10) | | | |
| | | | | | | | | | | | | |
| 10 Ne 17 | 0 | 109 ms | 1/2- | +0.7873(14) | | | [21Ne] | CFBLS | 2005GE06 | PR C71 064319 (2006) | | |
| | | | | (+) $0.74(3)$ | | | β -NMR | 2004BA12 | JP G30 519 (04) | | | |
| 10 Ne 19 | 0 | 17.3 s | 1/2+ | -1.8846(8) | | | [21Ne] | CFBLS | 2005GE06 | PR C71 064319 (2006) | | |
| | | | | -1.88542(8) | | | β -NMR | 1982Ma39 | PR C26 1753 (82) | | | |
| | | 238 | 17.7 ns | 5/2+ | | | -0.740(8) | [19F 197] | TDPAD | 1969BI02 | NP A123 65 (69) | |
| 10 Ne 20 | 1634 | 0.7 ps | 2+ | +1.08(8) | -0.23(3) | R | RIV/D, R | 1978Za13/1975Ho15 | HFI 5 347 (78)/NP A248 291 (75) | | | |
| | | | | | | | CER, R | 1981Sp07 | PRep. 73 369 (81) | | | |
| | 4247 | 64 fs | 4+ | +1.5(3) | | | [20Ne 1634] | TF | 2003LE01 | PL B551 249 (03) | | |
| | | | | +0.5(6) | | | [20Ne 1634] | TF | 1986Tr08 | NP A458 95 (86) | | |
| | | | | | | | | TF,R | 1982Sp02 | NP A378 130 (82) | | |
| | | | | +1.7(14) | | | [20Ne 1634] | TF | 1984Br15 | PR C30 696 (84) | | |
| | | | | | | | | TF,R | 1982Sp02 | NP A378 130 (82) | | |
| | | | -0.4(8) | [20Ne 1634] | TF | 1980Sp02 | PL B92 289 (80) | | | | | |
| 10 Ne 21 | 0 | stable | 3/2+ | -0.661797(5) | | | [2H] | MB | 1957La08 | PR 107 1202 (57) | | |
| | | | | | | | +0.102(8) | R | | O/AB | 2008Py02/1972Du06 | Mol Phys 106 1965 (2008)/PR A5 1036 (1972) |
| | | | | | | | +0.103(8) | | | O,AB | 1972Du06/1958Gr65 | PR A5 1036 (72)/PRL 1 214 (58) |
| | 351 | 7.1 ps | 5/2+ | 0.49(4) | | | RIV/D | 1978Ro10 | JP G4 431 (78) | | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|---------|------|---------------|----------------------|-------------|---------------------|-----------------------------------|---|
| | | | | 0.70(8) | | | RIV/D | 1977Be30 | PR C16 679 (77) |
| | | | | 0.9(2) | | | RIV/D | 1978An30 | HFI 4 190 (78) |
| 10 Ne 22 | 1275 | 3.6 ps | 2+ | +0.65(2) | | | RIV/D | 1977Ho01 | NP A275 237 (77) |
| | | | | | | | TFL | 1986Ad** | JPJS 55 1042 (86) |
| | | | | | -0.19(4) | | CER, R | 1981Sp07 | PRep. 73 369 (81) |
| | 3357 | 225 fs | 4+ | +2.2(6) | | [22Ne 1275] | TFL | 1984Ba10 | PR C29 1163 (84) |
| 10 Ne 23 | 0 | 37.6 s | 5/2+ | 1.0817(9) | | | β -NMR | - | OULNS Ann. Rept. 2004 51 (05) |
| | | | | -1.0795(10) | | | | - | Z. Naturforsch. 49a 27 (94) |
| | | | | -1.077(4) | | [21Ne] | CFBLS | 2005GE06 | PR C71 064319 (2006) |
| | | | | -1.08(1) | | | AB | 1968Do07 | BAPS 13 173 (68) |
| | | | | | 0.145(13) | R [21Ne] | CFBLS | 2005GE06 | PR C71 064319 (2006) |
| 10 Ne 25 | 0 | 0.60 s | 1/2+ | -1.0062(5) | | [21Ne] | CFBLS | 2005GE06 | PR C71 064319 (2006) |
| 11 Na 20 | 0 | 0.446 s | 2+ | +0.3694(2) | | [23Na] | OP/RD | 1975Sc20 | NP A246 187 (75) |
| | | | | | +0.101(8) | R [23Na] | β -NMR | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.103(8) | [27Na] | β -NMR | 2009Mi04 | PL B672 120 (06) |
| | | | | | +0.090(10) | [21Na,27Na] | β -NMR | 2004MI59 | HFI 159 261 (2004) |
| | | | | | Q/Q(21Na) = 0.728(9) | [21Na] | β -NMR | 2004Mi50 | NP A746 501c/HFI 159 239 (2004) |
| 11 Na 21 | 0 | 22.5 s | 3/2+ | +2.38630(10) | | [23Na] | AB | 1965Am01 | PR 137 B1157 (65) |
| | | | | | +0.138(11) | R [23Na] | β -NMR | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.140(11) | [27Na] | β -NMR | 2009Mi04 | PL B672 120 (06) |
| | | | | | +0.124(14) | [23Na] | CFBLS/ β -NMR | 2000Ke09 | EurPJ A8 31 (00) |
| | | | | | +0.05(4) | | ABLS | 1982To05 | PR C25 2756 (82) |
| | 332 | 6.9 ps | 5/2+ | 3.7(3) | | | RIV/D | 1977Be30 | PR C16 679 (77) |
| 11 Na 22 | 0 | 2.60 y | 3+ | +1.746(3) | | [23Na] | AB | 1949Da01 | PR 76 1068 (49) |
| | | | | | +0.180(11) | R [23Na] | β -NMR | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.185(11) | | ABLS | 1998Ga44 | EurPJ A3 313 (98) |
| | 583 | 243 ns | 1+ | +0.535(10) | | | TDPAC | 1966Su07 | PR 151 910 (66) |
| | | | | +0.523(11) | | [19F 197] | TDPAD | 1989Ra17/1967BI** | ARHMI 28 (67) |
| | 2212 | 15.2 ps | 1- | 0.36(7) | | | RIV/D | 1976Be06 | PR C13 895 (76) |
| 11 Na 23 | 0 | stable | 3/2+ | +2.217522(2) | | | AB/D | 1974Be50 | JP 270 173 (74) |
| | | | | +2.2176556(6) | | [1H] | N | 1976Fu06/1954Wa37 | JPCR 5 835(76)/ORNL 1775 (54) |
| | | | | | +0.104(1) | R | O | 2008Py02/2006Da14 | Mol Phys 106 1965 (2008)/J Phys B39 3111 (2006) |
| | | | | | +0.1045(10) | | R | 1999Ke12 | PR A60 3575 (99) |
| | | | | | +0.109(3) | | R | 1992Su01 | PRL 68 927 (92) |
| | | | | | +0.095(15) | | CER | 1992Vo09 | NP A549 281 (92) |
| | | | | | +0.104(1) | | MS | 1994Py02 | CPL 227 221 (94) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|-----|---------|------|------------|-------------------|-------------|---------------------|-----------------------------------|----------------------------------|
| | | | | | +0.101(2) a | | Mu-X | 1983Je09 | NP A408 495 (83) |
| | | | | | | | OL,R | 1971St12 | PR A3 837 (71) |
| 11 Na 24 | 0 | 15.0 h | 4+ | +1.6903(8) | | | AB/D | 1966Ch15/1973CoZG | PR 150 933 (66)/BAPS 18 727 (73) |
| | 427 | 20.2 ms | 1+ | -1.931(3) | | | β -NMR | 1980He08 | PL B94 28 (80) |
| | | | | | | | | 1979Mu13 | PL B88 242 (79) |
| 11 Na 25 | 0 | 60 s | 5/2+ | +3.683(4) | | [23Na] | OP/RD | 1975De11 | ZP A273 15 (75) |
| | | | | | 0.0015(3) | R | β -NMR | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.0014(3) | | β -NMR | 2004OG13 | HFI 159 235 (2004) |
| | | | | | -0.10(5) | | ABLS | 1982To05 | PR C25 2756 (82) |
| 11 Na 26 | 0 | 1.07 s | 3+ | +2.851(2) | | [23Na] | ABLS | 1978Hu12 | PR C18 2342 (78) |
| | | | | | -0.0053(2) | R | CFBLS/ β -NMR | 2000Ke09 | EurPJ A8 31 (00) |
| | | | | | -0.08(5) | | ABLS | 1982To05 | PR C25 2756 (82) |
| 11 Na 27 | 0 | 0.29 s | 5/2+ | +3.895(5) | | [23Na] | ABLS | 1978Hu12 | PR C18 2342 (78) |
| | | | | | -0.0071(3) | R | CFBLS/ β -NMR | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.0072(3) | | CFBLS/ β -NMR | 2000Ke09 | EurPJ A8 31 (00) |
| | | | | | -0.06(5) | | ABLS | 1982To05 | PR C25 2756 (82) |
| | | | | | Q/Q(26Na)=1.39(4) | | CFBLS/ β -NMR | 1996Ke08 | HFI 97/98 543 (96) |
| 11 Na 28 | 0 | 30.5 ms | 1+ | +2.426(5) | | [23Na] | ABLS | 1978Hu12 | PR C18 2342 (78) |
| | | | | | +0.0389(11) | R | CFBLS/ β -NMR | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.0395(12) | | CFBLS/ β -NMR | 2000Ke09 | EurPJ A8 31 (00) |
| | | | | | -0.02(4) | | ABLS | 1982To05 | PR C25 2756 (82) |
| | | | | | Q/Q(26Na)=-7.7(2) | | CFBLS/ β -NMR | 1996Ke08 | HFI 97/98 543 (96) |
| 11 Na 29 | 0 | 43 ms | 3/2+ | +2.449(8) | | [23Na] | ABLS | 1978Hu12 | PR C18 2342 (78) |
| | | | | | +0.085(3) | R | CFBLS/ β -NMR | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.086(3) | | CFBLS/ β -NMR | 2000Ke09 | EurPJ A8 31 (00) |
| | | | | | -0.03(5) | | ABLS | 1982To05 | PR C25 2756 (82) |
| 11 Na 30 | 0 | 53 ms | 2+ | +2.083(10) | | [23Na] | ABLS | 1978Hu12 | PR C18 2342 (78) |
| 11 Na 31 | 0 | 17 ms | 3/2+ | +2.305(8) | | [23Na] | ABLS,R | 1978Hu12 | PR C18 2342 (78) |
| 12 Mg 21 | 0 | 122 ms | 5/2+ | -0.983(7) | | [25Mg] | CFBLS/ β -NMR | 2009KR05 | PL B 678 465 (09) |
| 12 Mg 23 | 0 | 11.3 s | 3/2+ | 0.5364(3) | | | β -NMR | 1993Fu06 | PL B307 278 (93) |
| | | | | | 0.114(3) | R | β -NMR | 1999Mb13 | HFI 120/121 673 (99) |
| | | | | | 0.125(5) | | β -NQR | 1996MaZV | ARO p64 (96) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | |
|----------|------|---------------------|------|---------------|------|-------------|------------------|-----------------------------------|-----------------------------------|-----------------------------------|--|
| 12 Mg 24 | 1369 | 1.45 ps | 2+ | +1.02(4) | | | RIV/D/IMPAC | 1975Ho15/1974Eb02 | NP A248 291 (75)/NP A229 162 (74) | | |
| | | | | | | | CER | 1990Gr11 | PR C42 R471 (90) | | |
| | | | | | | | CER, R | 1981Sp07 | PRep. 73 369 (81) | | |
| | | | | | | | CER | 1979Fe05 | NP A319 214 (79) | | |
| | | | | | | | ES,R | 1981Ko06 | JP G7 L63 (81) | | |
| | | | | | | | TF | 1983Sp01 | NP A403 421 (83) | | |
| | 4123 | 38 fs | 4+ | +1.6(12) | | [24Mg 1369] | TF | 1983Sp01 | NP A403 421 (83) | | |
| | 4238 | 73 fs | 2+ | +1.2(4) | | [24Mg 1369] | TF | 1983Sp01 | NP A403 421 (83) | | |
| | 6010 | 55 fs | 4+ | +2.0(16) | | [24Mg 1369] | TF | 1984Sp03 | ZP A315 319 (84) | | |
| 12 Mg 25 | 0 | stable | 5/2+ | -0.85545(8) | | [14N] | N | 1951Al11 | PR 82 105 (51) | | |
| | | | | | | | R | 1991Su13 | NP A534 360 (91) | | |
| | | | | | | | Mu-X | 1982We04 | NP A377 361 (82) | | |
| 12 Mg 26 | 1809 | 476 fs | 2+ | +1.0(3) | | [24Mg 1369] | TF | 1981Sp04 | PL 102B 6 (81) | | |
| | | | | | | | CER | 1991He09 | PR C43 2546 (91) | | |
| | | | | | | | CER,R | 1981Sp07 | PRep. 73 369 (81) | | |
| | | | | | | | CER | 1982Sp05 | NP A378 559 (82) | | |
| | | | | | | | CER | 1977Sc36 | NP A293 425 (77) | | |
| 12 Mg 27 | 0 | 9.46 m | 1/2+ | -0.411(2) | | [25Mg] | CLS | 2008KO05 | PR C77 034307 (08) | | |
| 12 Mg 29 | 0 | 1.30 s | 3/2+ | +0.9780(6) | | [25Mg] | β -NMR/LRS | 2008Ko05 | PR C77 034307 (08) | | |
| 12 Mg 31 | 0 | 230 ms | 1/2+ | -0.88355(15) | | [25Mg] | β -NMR/LRS | 2005Ne01 | PRL 94 022501 (05) | | |
| | | | | | | | | 2008Ko05 | PR C77 034307 (08) | | |
| 12 Mg 33 | 0 | 90.5 ms | 3/2+ | -0.7456(5) | | [31Mg] | β -NMR/LRS | 2007Yo06 | PRL 99 212501 (07) | | |
| 13 Al 23 | 0 | 37.2 s | 5/2+ | +3.889(5) | | | β -NMR | 2006Oz04 | PR C74 021301 (06) | | |
| | | | | | | | 0.16(5) | Prelim. | β -NMR | 2009NaZv | RIKEN Accel. Prog. Rept. 2008 NP p 23 (2009) |
| 13 Al 24 | 426 | 131 ms | 1+ | 2.99(9) | | | β -NMR | 2007NI14 | HFI 180 71 (07) | | |
| 13 Al 25 | 0 | 7.18 s | 5/2+ | 3.6455(12) | | | β -NMR | 1976Mi11 | PR C14 376 (76) | | |
| | | | | | | | 0.24(2) | R | [27Al] | β -NQR | 2007Ma94 |
| 13 Al 26 | 0 | 7x10 ⁵ y | 5+ | +2.804(4) | | [27Al] | ABLS | 1996Co04 | JP G22 99 (96) | | |
| | | | | | | | +0.26(3) | [27Al] | ABLS | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | | | +0.27(3) | [27Al] | ABLS | 1997Le19 | JP G23 1145 (97) |
| 13 Al 27 | 0 | stable | 5/2+ | +3.6415069(7) | | [2H] | N | 1968Ep01 | ZNat 23a 1413 (68) | | |
| | | | | | | | +0.1466(10) | R | AB | 2008Pv02/1968Ma23 | Mol Phys 106 1965 (2008)/PRS A305 139 (1968) |
| | | | | | | | +0.1402(10) | | R | 1992Su01 | PRL 68 927 (92) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|---------|--------|---|----------------------|-------------|--------------|--------------------------|---------------------------------------|
| | | | | | +0.150(6) a | | Mu-X | 1982We04 | NP A377 361 (82) |
| 13 Al 28 | 0 | 2.24 m | 3+ | 3.242(5) | | | β -NMR | 1981Mi14 | PL 106B 38 (81) |
| | | | | | 0.172(12) | R | β -NMR | 2013SiZz | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.175(14) | | β -NMR | 1978Si31 | HFI 4 170 (78) |
| | 31 | 1.91 ns | 2+ | +4.3(4) | | | IPAC | 1972He22 | PR C6 878 (72) |
| 13 Al 30 | 0 | 3.63 s | 3+ | 3.010(7) | | | β -NMR | 2005UE01 | PL B615 186 (2005) |
| 13 Al 31 | 0 | 644 ms | (5/2+) | +3.830(5) (+) 3.79(5) | | | β -NMR | 2006HI18 | PL B643 257 (06) |
| | | | | | 0.140(2) | R | LMR | 2002Bo22 | PL B537 45 (02) |
| | | | | | 0.134(2) | | β -NQR | 2013SiZz | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | | | β -NQR | 2009De25 | PL B678 344 (2009) |
| 13 Al 32 | 0 | 33 ms | 1+ | 1.952(2) 1.959(9) | | | β -NMR | 2006HI18 | PL B643 257 (06) |
| | | | | | 0.025(2) | R | β -NMR | 2005UE01 | PL B615 186 (2005) |
| | | | | | 0.024(2) | | β -NQR | 2013SiZz | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | | | β -NQR | 2007KA68 | HI 180 61 (07) |
| 13 Al 33 | 0 | 44 ms | (5/2+) | +4.088(5) | | | β -NMR | 2006HI18 | PL B643 257 (06) |
| | | | | | 0.132(16) | R | β -NMR | 2012Sh22 | PL B714 246 (12) |
| 13 Al 34 | 0 | 56 ms | 4- | (+)2.156(16) | | | β -NMR | 2008HI01 | PL B658 203 (08) |
| 14 Si 27 | 0 | 4.1 s | 5/2+ | (-)0.8652(4) d 0.8654(3) d (-)0.8554(4) | | | β -NMR | 1998MaZJ | ARO 49 (97) |
| | | | | | | | β -NMR | 1999MaZK | ARO 54 (98) |
| | | | | | 0.063(14) | R | β -NMR | 1984Hu11 | PR C30 1328 (84) |
| | | | | | 0.060(13) | | β -NMR | 1999MaZK | ARO 54 (98) |
| | | | | | 0.061(4) | | β -NMR | 1999Mb13 | HFI 120/121 673 (99) |
| | | | | | | | β -NMR | 1998MaZJ | ARO 49 (97) |
| 14 Si 28 | 1779 | 0.49 ps | 2+ | +1.1(2) | | | IMPAC | 1975Eb01 | NP A244 1 (75) |
| | | | | | +0.16(3) | R | CER,R | 1981Sp07 | PRep. 73 369 (81) |
| | | | | | +0.18(3) | | CER | 1980Ba40 | NP A349 271 (80) |
| | | | | | +0.16(3) | | CER | 1980Fe07 | AuJP 33 509 (80)/AuJP 34 609 (E) (81) |
| 14 Si 29 | 0 | stable | 1/2+ | -0.55529(3) | | | N | 1953We51 | PR 89 923 (53) |
| 14 Si 30 | 2235 | 0.25 ps | 2+ | +0.8(2) | | | IMPAC, R | 1978Za13 | HFI 5 347 (78) |
| | | | | | -0.05(6) | R | CER, R | 1981Sp07 | PRep. 73 369 (81) |
| | | | | | -0.05(6) or +0.01(6) | | CER | 1979Fe08 | PRL 43 1463 (79) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|---------|--------|------------------------|----------------------|-------------|------------------------------|---|---|
| 14 Si 33 | 0 | 6.332 s | (3/2+) | 1.21(3) | | | β -NMR, OP/RD | 92MA52 | HFI 74 223 (1992) |
| 14 Si 35 | 0 | 0.78 s | 7/2- | (-) 1.638(4) | | | β -NMR | 2007NE14 | Eur Phys J (Sp Topics) 150 149 (07) |
| 15 P 28 | 0 | 270 ms | 3+ | 0.312(3) 0.309(9) | | | β -NMR β -NMR | 2010 MAZJ 2009ZH52 2007ZH54 | 7th China-Japan NP Symp 260 (10) Chin Phys C33 Supp 1 215 (09) HI 180 37 (07) |
| | | | | | 0.137(14) | | β -NQR | 2012Zh36 | Chin Phys Lett 29 092102 (12) |
| 15 P 29 | 0 | 4.1 s | 1/2+ | 1.2346(3) 1.2349(3) | | | β -NMR β -NMR | 2009ZH53 1971SuZI | Chin Phys C33 Supp 1 215 (09) Cf70HI 325 (70) |
| 15 P 31 | 0 | stable | 1/2+ | +1.13160(3) | | [23Na] | N | 1954Wa37 | ORNL 1775 (54) |
| | 1270 | 0.52 ps | 3/2+ | +0.30(8) | | | IMPAC | 1982Ho06 | NP A379 22 (82) |
| | 2230 | 0.25 ps | 5/2+ | +2.8(5) | | | IMPAC | 1982Ho06 | NP A379 22 (82) |
| 15 P 32 | 0 | 14.28 d | 1+ | -0.2524(3) | | | ENDOR | 1957Fe32 | PR 107 1462 (57) |
| 16 S 31 | 0 | 2.6 s | 1/2+ | 0.48793(8) | | | β -NMR | 1976Mi16 | PR C14 2335 (76) |
| 16 S 32 | 2230 | 0.16 ps | 2+ | +0.9(2) +0.9(2) | | | TF TF | 2006SP01 1979Za01 | PL B632 207 (2006) NP A315 133 (79) |
| | | | | | -0.16(2) | R | CER | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.15(2) | | CER, R | 1981Sp07 | PRep. 73 369 (81) |
| | | | | | -0.16(2) or -0.13(2) | | CER | 1982Ve09 | NP A389 185 (82) |
| | | | | | -0.18(4) or -0.15(4) | | CER | 1981Da08 | ZP A300 71 (81) |
| | | | | | -0.12(5) | | CER | 1980Ba40 | NP A349 271 (80) |
| | 4459 | 0.144ps | 4+ | +1.6(6) | | [32S 2230] | TF | 1988Si14 | ZP A330 361 (88) |
| 16 S 33 | 0 | stable | 3/2+ | +0.6438212(14) | | [2H] | N | 1973Lu06/1951Dh01 | ZNat 28a 1370 (73)/PR 83 845 (51) |
| | | | | | -0.0678(13) | R | MA | 2008Py02/1954Bi40 | Mol Phys 106 1965 (2008)/PR 94 1203 (1954) |
| | | | | | -0.064(10) st | | MA | 1954Bi40 | PR 94 1203 (54) |
| | | | | | -0.084(8) | | CFBLS | 1986EI09 | ZNat 41a 15 (86) |
| | | | | | -0.0678(13) | | MCHF | 1990Su19 | PR A42 1160 (90) |
| 16 S 34 | 2128 | 0.32 ps | 2+ | +1.0(2) | | | IMPAC | 1979Za01 | NP A315 133 (79) |
| | | | | | +0.04(3) | R | CER, R | 1981Sp07 | PRep. 73 369 (81) |
| | | | | | +0.06(4) | | CER | 1980Ba40 | NP A349 271 (80) |
| 16 S 35 | 0 | 87.4 d | 3/2+ | +1.00(4) or +1.07(4) | | | MA | 1954Bu05 | PR 93 193 (54) |
| | | | | | +0.0471(9) | R | MCHF | /2008Py02/1990Su19 | Mol Phys 106 1965 (2008)/PR A42 1160 (90) |
| | | | | | +0.045(10) | | MA | 1954Bi40 | PR 94 1203 (54) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|-----------------------|------|--------------------------------------|--|--------------------------|--|---|---|
| 16 S 38 | 1292 | 3.4 ps | 2+ | +0.26(10) | | | TF | 2006ST21 | PRL 96, 112503/PR C74 054307 (06) |
| 16 S 40 | 904 | 14.6 ps | 2+ | -0.02(12) | | | TF | 2006ST21 | PRL 96, 112503/PR C74 054307 (06) |
| 16 S 43 | 320 | 415 ns | 7/2- | 1.110(14) | 0.23(3) | R | TDPAD TDPAD | 2009GA05 2012Ch16 | PRL 102 092501 (09) PRL 108 162501 (2012) |
| 17 Cl 32 | 0 | 298 ms | 1+ | +1.114(6) | | | β -NMR | 2000Ro30 | PR C62 044312 (00) |
| 17 Cl 33 | 0 | 2.52 s | 3/2+ | + 0.7549(3) d +0.752(2) | | | β -NMR β -NMR | 2004Ma98 1986Ro20 | NP A746 493c (04) PL 177B 293 (86) |
| 17 Cl 35 | 0 | stable | 3/2+ | +0.8218743(4) | 0.0850(11) 0.0819(11) a -0.817(8) a -0.08249(2) st -0.076(5) | [2H] | N R R R AB, R CFBLS | 1972BI07 2004AI08 2000Ha64 2008Py02/1993Su36 1972St38 1986EI09 | ZNat 27a 72 (72) PR B61 13588 (00) Mol Phys 106 1965 (2008)/JCP 98 7152 (93) PR A6 1702 (72) ZNat 41a 15 (86) |
| 17 Cl 36 | 0 | 3.0x10 ⁵ y | 2+ | +1.28547(5) | -0.178(4) -0.0180(4) st | [2H] [35Cl] [35Cl] | N MA, R MA, R | 1955So10 2013StZZ 1972St38 | PR 98 1316 (55) IAEA Rept INDC(NDS)-0650 (2013) PR A6 1702 (72) |
| 17 Cl 37 | 0 | stable | 3/2+ | +0.6841236(4) | -0.0644(7) a -0.06493(2) st -0.068(10) | [2H] | N R AB, R CFBLS | 1972BI07 2008Py02/1993Su36 1972St38 1986EI09 | ZNat 27a 72 (72) Mol Phys 106 1965 (2008)/JCP 98 7152 (93) PR A6 1702 (72) ZNat 41a 15 (86) |
| 17 Cl 38 | 0 | 37.3 m | 2- | 2.05(2) | | | β -NMR | 1972La22 | ZP 252 242 (72) |
| 17 Cl 44 | 0 | 0.56 s | (2-) | (-)0.2749(2) | | | β -NMR | 2010DE11 | PR C81 034308 (10) |
| 18 Ar 33 | 0 | 0.174 s | 1/2+ | -0.723(6) | | [37Ar] | CFBLS/ β -NMR | 1996KI04 | NP A607 1 (96) |
| 18 Ar 35 | 0 | 1.78s | 3/2+ | +0.6322(2) +0.633(7) +0.633(2) | -0.084(15) | [37Ar] | β -NMR CFBLS/ β -NMR NO/D CFBLS/ β -NMR | 2002Ma41 1996KI04 1965Ca04 1996KI04 | NP A701 383c (02) NP A607 1 (96) PR 137 B1453 (65) NP A607 1 (96) |
| 18 Ar 36 | 1970 | 0.45 ps 0.28 ps | 2+ | +1.0(4) | +0.11(6) | | TF CER | 2006SP01 1971Na06 | PL B632 207 (2006) PL 34B 389 (71) |
| 18 Ar 37 | 0 | 35.0 d | 3/2+ | +1.145(5) | | [85Kr] | N, OP/RD | 1988PiZY | BAPS 33 1564 (88) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|--------------|----------|-----------------|--------------|-------------|---------------------|-----------------------------------|---|
| | | | | | +0.076(9) | R | O | 1965Ro13 | PR 140 B820 (65) |
| | 1611 | 4.6 ns | 7/2- | -1.33(5) | | | CFBLS/ β -NMR | 1996KI04 | NP A607 1 (96) |
| | | | | | | | TDPAD | 1971Ra22 | PRL 27 603 (71) |
| 18 Ar 38 | 2167 | 0.49 ps | 2+ | +0.5(2) | | | TF | 2006SP01 | PL B632 207 (2006) |
| | 3937 | 0.03 ps | 2+ | +2.2(22) | | | TF | 2006SP01 | PL B632 207 (2006) |
| 18 Ar 39 | 0 | 269 y | 7/2- | -1.588(15) | | [37Ar] | CFBLS/ β -NMR | 1996KI04 | NP A607 1 (96) |
| | | | | -1.3(3) | | | O | 1967Tr12 | JOSA 57 1452 (67) |
| | | | | | -0.12(2) | [37Ar] | CFBLS | 2008BL01 | NP A799 30 (2008) |
| | | | | | -0.12(3) | [37Ar] | CFBLS/ β -NMR | 1996KI04 | NP A607 1 (96) |
| 18 Ar 40 | 1461 | 1.12 ps | 2+ | -0.04(6) | | | TF | 2008SP04 | PR C78 017304 (08) |
| | | | | -0.03(8) | | | TF | 2005ST22 | PR C72 014309 (05) |
| | | | | -0.2(2) | | | TF | 1992Cu04 | NP A549 304 (92) |
| | | | | | +0.01(4) | R | CER | 1970Na05 | PRL 24 903 (70) |
| 18 Ar 41 | 0 | 1.82 h | 7/2- | -1.309(8) | | [39Ar] | CFBLS | 2008BL01 | NP A799 30 (2008) |
| | | | | | -0.042(4) | R | CFBLS | 2008BL01 | NP A799 30 (2008) |
| 18 Ar 43 | 0 | 5.37 m | 5/2- | -1.021(6) | | | CFBLS | 2008BL01 | NP A799 30 (2008) |
| | | | | | +0.142(14) | R | CFBLS | 2008BL01 | NP A799 30 (2008) |
| 19 K 35 | 0 | 178 ms | 3/2+ | 0.392(7) | | | β -NMR | 2006ME04 | PR C73 024318 (06) |
| | | | | (+0.36(3)) | | | β -NMR | 1998Sc19 | PR C57 2205 (98) |
| 19 K 36 | 0 | 0.34 s | 2+ | (+)0.548(1) | | [39K] | OP/RD | 1975Sc20 | NP A246 187 (75) |
| 19 K 37 | 0 | 1.23 s | 3/2+ | +0.20321(6) | | | OP/RD | 1971Vo03 | ZP 244 44 (71) |
| | | | | | +0.106(4) | R | β -NQR | 2008Mi07 | PL B662 389 (2008) |
| | 1379 | 10.5 ns | 5/2,7/2- | g = +1.5(1) | | | TDPAD | 1971Ra22 | PRL 27 603 (71) |
| 19 K 38 | 0 | 7.61 m | 3+ | +1.371(6) | | [39K] | AB, R | 1982To02 | PL 108B 169 (82) |
| | 3458 | 22.1 μ s | 7+ | +3.836(14) | | | TDPAD | 1974Io01 | PL 48B 28 (74) |
| 19 K 39 | 0 | stable | 3/2+ | +0.39147(3) | | | ABLS | 1993Du08 | NIMPR A325 465 (93) |
| | | | | +0.3914662(3) | | | AB/D | 1974Be50 | ZP 270 173 (74) |
| | | | | +0.39150731(12) | | [2H] | N | 1974Sa24/1974Sa25 | ZNat 29a 1754 (74)/ZNat 29a 1763 (74) |
| | | | | | +0.0585(6) a | R | R | 2008Py02/1998Ke05 | Mol Phys 106 1965 (2008)/CPL 292 403 (1998) |
| | | | | | +0.060(2) a | | R | 1993Su36 | JCP 98 7152 (93) |
| | | | | | +0.049(4) st | | OL, R | 1971St12 | PR A3 837 (71) |
| | 2814 | 48 ps | 7/2- | 4.0(4) | | [41K 1294] | RIGV | 1981Le19 | ZP A301 243 (81) |
| | 3598 | 37 ps | 9/2- | 2.4(2) | | [41K 1294] | RIGV | 1981Le19 | ZP A301 243 (81) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|----------|------|-----------------------|--------|----------------------------------|--------------|-------------|--------------|---|--|---|
| | 8030 | 14 ps | 19/2- | +3.3(3) | | [41Ca3830] | TF | 1992Pa01 | PR C45 166 (92) | |
| 19 K 40 | 0 | 1.3x10 ⁹ y | 4- | -1.298100(3) -1.2982(4) | | [2H] | N AB/D | 1974Sa24 1952Ei09 | ZNat 29a 1754 (74) PR 86 73 (52) | |
| | | | | | -0.073(1) a | R | [39K] | R | 2008Py02/1998Ke05 | Mol Phys 106 1965 (2008)/CPL 292 403 (1998) |
| | | | | | -0.075(2) a | | [39K] | R | 1993Su36 | JCP 98 7152 (93) |
| | | | | | -0.061(5) st | | [39K] | Q, OL | 1972Jo09/1971St12 | PR B6 757 (72)/PR A3 837 (71) |
| | 30 | 4.30 ns | 3- | -1.29(9) | | [19F 197] | TDPAD | 1974Br12 | PL 49B 261 (74) | |
| | 2543 | 1 ns | 7+ | +4.1(7) | | | IMPAD | 1976Bo21 | NP A264 151 (76) | |
| | | | | +4.4(11) | | [41K 1294] | RIGV | 1981Le19 | ZP A301 243 (81) | |
| 19 K 41 | 0 | stable | 3/2+ | +0.2148701(2) +0.21489274(12) | | [2H] | AB/D N | 1974Be50 1974Sa24/1974Sa25 | ZP 270 173 (74) ZNat 29a 1754 (74)/ZNat 29a 1763 (74) | |
| | | | | | +0.0711(7) a | R | R | 2008Py02/1998Ke05 | Mol Phys 106 1965 (2008)/CPL 292 403 (1998) | |
| | | | | | +0.073(2) a | | R | 1993Su36 | JCP 98 7152 (93) | |
| | | | | | +0.060(5) st | | MB, R | 1971St12 | PR A3 837 (71) | |
| | 1294 | 7.42 ns | 7/2- | +4.42(5) | | [19F 197] | TDPAD | 1969Bi07 | PL 28B 651 (69) | |
| | 2528 | 152 ps | 11/2+ | 4.5(10) | | [41K 1294] | RIGV | 1981Le19 | ZP A301 243 (81) | |
| | 2774 | 55 ps | 13/2+ | 3.0(5) | | [41K 1294] | RIGV | 1981Le19 | ZP A301 243 (81) | |
| | 4983 | 73 ps | 19/2- | 7(3) | | [41K 1294] | RIGV | 1981Le19 | ZP A301 243 (81) | |
| 19 K 42 | 0 | 12.36 h | 2- | -1.1425(6) | | | AB/D | 1969Ch20/1973CoZG | PR 184 1102 (69)/BAPS 18 727 (73) | |
| 19 K 43 | 0 | 22.3 h | 3/2+ | +0.1633(8) | | [39K] | ABLS, R | 1982To02/1982Du06 | PL 108B 169 (82)/JPPa 43 509 (82) | |
| | 738 | 202 ns | 7/2- | +4.43(5) | | | TDPAD | 1983Ra37 | HFI 15 59 (83) | |
| 19 K 44 | 0 | 22.1 m | 2- | -0.856(4) | | [39K] | ABLS, R | 1982To02/1982Du06 | PL 108B 169 (82)/JPPa 43 509 (82) | |
| 19 K 45 | 0 | 20 m | 3/2+ | +0.1734(8) | | [39K] | AB, R | 1982To02 | PL 108B 169 (82) | |
| 19 K 46 | 0 | 115 s | 2- | -1.051(6) | | [39K] | ABLS | 1982To02 | PL 108B 169 (82) | |
| 19 K 47 | 0 | 17.5 s | 1/2+ | +1.933(9) | | [39K] | ABLS | 1982To02 | PL 108B 169 (82) | |
| 19 K 49 | 0 | 1.26 s | 1/2+ | +1.3386(8) | | [39K] | CLS | 2013Pa11 | PRL 110 172503 (2013) | |
| 19 K 51 | 0 | 365 ms | (3/2+) | +0.513(2) | | [39K] | CLS | 2013Pa11 | PRL 110 172503 (2013) | |
| 20 Ca 39 | 0 | 0.86 s | 3/2+ | 1.02168(12) | | | β -NMR | 1976Mi05 | PL 61B 155 (76) | |
| | | | | | 0.036(7) | R | β -NMR | 1999Mb13 | HI 120/121 673 (1999) | |
| | | | | | 0.040(6) | [calc efg] | β -NMR | 1999MaZK | ARO 54 (98) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|----------|-------|---------------------|--------|--------------|--------------|-------------|------------|--|---|--------------------------------------|
| 20 Ca 40 | 3737 | 47 ps | 3- | +1.6(3) | | | TFL RIGV,R | 1979Ni04/1976Ja16 | PRL 43 326 (79)/PR C14 2013 (76) | |
| | | | | +1.6(3) | | [40Ca 4492] | IMPAC | 1987Ma25 | ZP A327 157 (87) | |
| | 4492 | 295 ps | 5- | +2.6(5) | | | IPAD | 1974He13 | PR C10 919 (74) | |
| 20 Ca 41 | 0 | 1.0×10^5 y | 7/2- | -1.594781(9) | | [2H] | N | 1962Br30 | PRL 9 166 (62) | |
| | | | | -1.5942(7) | | [43Ca] | ABLDF | 1983Ar25 | ZP A314 303 (83) | |
| | | | | -1.61(2) | | [43Ca] | ABLFS | 1982An15 | PR C26 2194 (82) | |
| | | | | | -0.665(18) | R | AB | 2008Py02 | Mol Phys 106 1965 (2008) | |
| | | | | | -0.090(2) st | | [43Ca] | R | 2002Mi37 | Z.Nat 57a 595 (02) |
| | | | | | -0.066(2) a | | | R | 1993Su36 | JCP 98 7152 (93) |
| | | 3830 | 3.1 ns | 15/2+ | +2.18(15) | | [43Ca] | ABLDF TDPAD | 1983Ar25 1975Yo05 | ZP A314 303 (83) PR C12 1358 (75) |
| 20 Ca 42 | 1525 | 1.1 ps | 2+ | +0.08(12) | | | TF | 2003Sc21 | PL B571 29 (03) | |
| | | | | | -0.19(8) | R | CER | 1973To07 | NP A204 574 (73) | |
| | 3189 | 5.3 ns | 6+ | -2.49(9) | | | TDPAD | 1975Yo02 | PRL 35 497 (75) | |
| 20 Ca 43 | 0 | stable | 7/2- | -1.3173(6) | | [23Na] | OP/RD | 1972OIo1 | ZP 249 205 (72) | |
| | | | | -1.317643(7) | | [2H] | N | 1973Lu08 | ZNat 28a 1534 (73) | |
| | | | | | -0.055(1) | | R | 2002Mi37 | Z.Nat 57a 595 (02) | |
| | | | | | -0.0408(8) | R | R | 2008Py02/1993Su36 | Mol Phys 106 1965 (2008)/JCP 98 7152 (93) | |
| | | | | | -0.043(9) | | CFBLS | 1991Si14 | ZP D18 351 (91) | |
| | | | | | -0.049(5) | | ABLDF, R | 1983Ar25/1979Gr05 1982Ay02/1984Sa10 1982Ku12 | ZP A314 303 (83)/PRL 42 1528 (79) ZP A306 1 (82)/ZP A316 135 (84) ZP A307 99 (82) | |
| 20 Ca 44 | 1157 | 3.0 ps | 2+ | +0.24(10) | | | TF | 2003Ta05 | PL B571 29 (03) | |
| | | | | +0.34(6) | | | TF | 2003Sc21 | | |
| | | | | -0.6(2) | | [40Ca 3737] | TFL, RIV/D | 1979Ni04 | PRL 43 326 (79) | |
| | | | | | -0.14(7) | R | CER | 1973To07 | NP A204 574 (73) | |
| 20 Ca 45 | 0 | 165 d | 7/2- | -1.3274(14) | | [43Ca] | ABLFS, R | 1983Ar25/1981Ar15 | ZP A314 303 (83)/HFI 9 159 (81) | |
| | | | | | | | | 1980Be13 | ZP A294 319 (80) | |
| | | | | -1.316(16) | | [43Ca] | ABLFS | 1982An15 | PR C26 2194 (82) | |
| | | | | | +0.038(12) | R | [41Ca] | ABLFS | 1983Ar25 | ZP A314 303 (1983) |
| | | | | | +0.046(14) | | [43Ca] | ABLFS, R | 1983Ar25/1980Be13 | ZP A314 303 (83)/ZP A294 319 (80) |
| 20 Ca 46 | 1.346 | 4.6 ps | 2+ | -0.52(12) | | [46Ti 889] | TF | 2005Ta02 | PL B605 265 (05) | |
| | | | | -0.4(2) | | [50Ti 1554] | TF | 2003Sp04 | PR C68 061302 (04) | |
| 20 Ca 47 | 0 | 4.5 d | 7/2- | -1.38(3) | | [43Ca] | ABLFS | 1982An15 | PR C26 2194 (82) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|-------------|-------|--------------|--------------|-------------|--------------|-----------------------------------|---|
| 20 Ca 49 | 0 | | 3/2- | -1.38(6) | | | CFBLS | 1993VEZY | IoP Phys Conf Ser 132 193 (1992) |
| 21 Sc 41 | 0 | 0.59 s | 7/2- | +5.431(2) d | | [12B] | β -NMR | 1990Mi16 | NP A516 365 (90) |
| | | | | | -0.145(3) | R | β -NQR | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.156(3) st | | R | 2002Mi37 | Z.Nat 57a 595 (02) |
| | | | | | 0.120(6) | | β -NMR | 1990Mi19 | HFI 59 153 (90) |
| | | | | | 0.166(8) | | β -NQR | 1993Mi09 | NP A559 239 (93) |
| 21 Sc 43 | 0 | 3.89 h | 7/2- | +4.528(10) | | [45Sc] | CLS | 2011AV01 | J.Phys.G 38 025104 (2011) |
| | | | | +4.62(4) | | [45Sc] | AB | 1966Co13 | PR 141 1106 (66) |
| | | | | | -0.27(5) | R | CLS | 2011AV01 | J.Phys.G 38 025104 (2011) |
| | | | | | -0.27(5) | | AB | 1966Co13 | PR 141 1106 (66) |
| | 152 | 438 μ s | 3/2+ | +0.348(6) | | | TDPAD | 1977Mi10 | PR C16 1605 (77) |
| | 3123 | 473 ns | 19/2- | +3.122(7) | | | TDPAD | 1978Ha07 | PL 73B 127 (78) |
| | | | | | 0.199(14) | R | TDPAD | 1981Da06 | PR C23 1612 (81) |
| 21 Sc 44 | 0 | 3.89 h | 2+ | +2.499(5) | | [45Sc] | CLS | 2011AV01 | J.Phys.G 38 025104 (2011) |
| | | | | +2.56(3) | | [45Sc] | AB, R | 1966Co13 | PR 141 1106 (66) |
| | | | | | +0.10(5) | R | CLS | 2011AV01 | J.Phys.G 38 025104 (2011) |
| | | | | | +0.16(4) | | R | 1966Co13 | PR 141 1106 (66) |
| | 68 | 153 ns | 1- | +0.342(6) | | | TDPAC | 1967Ri06 | PR 153 1209 (67) |
| | | | | | 0.21(2) | R | TDPAC | 1973Ha61 | JCP 58 3339 (73) |
| | 235 | 6.1 ns | 2- | +0.68(10) | | [19F 197] | TDPAD | 1975Br12 | NuoCL 12 433 (75) |
| | 271 | 58.6 h | 6+ | +3.833(12) | | [45Sc] | CLS | 2011AV01 | J.Phys.G 38 025104 (2011) |
| | | | | +3.88(1) | | [45Sc] | AB, R | 1966Co13 | PR 141 1106 (66) |
| | | | | | -0.19(2) | R | CLS | 2011AV01 | J.Phys.G 38 025104 (2011) |
| | | | | | -0.21(9) | | R | 1966Co13 | PR 141 1106 (66) |
| | 350 | 3.2 ns | 4+ | +3.6(5) | | | IPAD | 1975Ch37 | ZP A275 51 (75) |
| 21 Sc 45 | 0 | stable | 7/2- | +4.756487(2) | | [2H] | N | 1969Lu01 | PL 29A 58 (69) |
| | | | | | | | | 1951Pr02 | PR 81 20 (51) |
| | | | | | -0.236(2) st | | NMR | 2002Mi37 | Z.Nat 57a 595 (02) |
| | | | | | -0.220(2) | R | MS | 2008Py02/2000Ke12 | Mol Phys 106 1965 (2008)/CPL 329 112 (00) |
| | | | | | -0.22(1) | | ABLDF | 1976Er01 | ZP A276 9 (76) |
| | | | | | -0.216(9) | | AB | 1971Ch25 | PR A4 1767 (71) |
| | 12.4 | 318 ms | 3/2+ | +0.360(11) | | [45Sc] | CLS | 2011AV01 | J.Phys.G 38 025104 (2011) |
| | | | | | +0.28(5) | R | CLS | 2011AV01 | J.Phys.G 38 025104 (2011) |
| 21 Sc 46 | 0 | 83.81 d | 4+ | +3.042(8) | | [45Sc] | CLS | 2011AV01 | J.Phys.G 38 025104 (2011) |
| | | | | +3.03(2) | | [45Sc] | AB | 1962Pe21 | PR 128 1740 (62) |
| | | | | | +0.12(2) | | CLS | 2011AV01 | J.Phys.G 38 025104 (2011) |
| | | | | | +0.119(6) | R | AB | 1962Pe21 | PR 128 1740 (62) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|---------|-------|-------------|------------|---|-------------|--------------|-----------------------------------|---|
| 21 Sc 47 | 0 | 3.42 d | 7/2- | +5.34(2) | | | [45Sc] | AB | 1966Co13 | PR 141 1106 (66) |
| | | | | | -0.22(3) | R | [45Sc] | AB | 1966Co13 | PR 141 1106 (66) |
| | 767 | 247 ns | 3/2+ | 0.35(5) | | | | TDPAD | 1968Fo02 | PR 168 1228 (68) |
| 21 Sc 48 | 0 | 43.7 h | 6+ | 3.785(12) | | | | NMR/ON | 2007OH10 | HI 180 79 (07) |
| 21 Sc 49 | 0 | 57.2 m | 7/2- | (+)5.62(3) | | | | NMR/ON | 2012OH01 | PRL 109 032504 (12) |
| 22 Ti 43 | 0 | 0.50 s | 7/2- | 0.85(2) | | | | β -NMR | 1993Ma67 | HFI 78 123 (93) |
| | 3066 | 560 ns | 19/2- | +7.22(1) | | | | TDPAD | 1978Ha07 | PL 73B 127 (78) |
| | | | | | 0.33(8) | R | [47Ti] | TDPAD | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.30(7) st | | [47Ti] | TDPAD | 1981Da06 | PR C23 1612 (81) |
| 22 Ti 44 | 1083 | 2.75 ps | 2+ | +1.0(3) | | | | TF | 2003SC19 | PL B567 153 (03) |
| 22 Ti 45 | 0 | 3.09 h | 7/2- | 0.095(2) | | | [47,49Ti] | AB | 1966Co19 | PR 148 1157 (66) |
| | | | | | 0.015(15) | R | [47,49Ti] | AB | 1966Co19 | PR 148 1157 (66) |
| | 40 | 11.3 ns | 5/2- | -0.133(10) | | | | TDPAD | | NuoCL 19 229 (77) |
| | | | | -0.08(3) | | | | TDPAD | 1977St12 | PR C15 1704 (77) |
| | 329 | 1.10 ns | 3/2+ | +1.1(3) | | | | IPAD, R | 1977Bu10 | CJP 55 779 (77) |
| 22 Ti 46 | 889 | 5.36 ps | 2+ | +0.99(5) | | | | TF | 2000Er06 | PR C62 024305 (00) |
| | | | | +1.0(3) | | | | TF | 1981Sh19 | HFI 9 65 (81) |
| | | | | | -0.21(6) | R | | CER | 1975To06 | NP A250 381 (75) |
| | 2010 | 1.64 ps | 4+ | +2.3(7) | | | | TF | 2000Er06 | PR C62 024305 (00) |
| 22 Ti 47 | 0 | stable | 5/2- | -0.78848(1) | | | [39K] | N | 1965Dr03 | PhMg 12 1061 (65) |
| | | | | | | | | | 1953Je16 | PR 92 1262 (53) |
| | | | | | +0.302(10) | R | | AB | 2008Py02/1965Ch19 | Mol Phys 106 1965 (2008)/PPS 86 1145 (1965) |
| | | | | | +0.30(2) | | | LRFS | 1990Ay01 | ZP D15 281 (90) |
| | | | | | +0.29(1) | | | AB | 1965Ch19 | PPS 86 1145 (65) |
| | 159 | 210 ps | 7/2- | -1.9(6) | | | [45Ti 330] | IPAD | 1977Bu10 | CJP 55 779 (77) |
| 22 Ti 48 | 984 | 4.29 ps | 2+ | +0.78(4) | | | | TF | 2000Er06 | PR C62 024305 (00) |
| | | | | +0.9(4) | | | | TF | 1981Sh19 | HFI 9 65 (81) |
| | | | | | -0.177(8) | R | | ES | 1972Li12 | PL 38B 475 (72) |
| | 2296 | 1.2 ps | 4+ | +2.2(5) | | | | TF | 2000Er06 | PR C62 024305 (00) |
| 22 Ti 49 | 0 | stable | 7/2- | -1.10417(1) | | | [39K] | N | 1965Dr03/1953Je16 | PhMg 12 1061 (65)/PR 92 1262 (53) |
| | | | | | 0.247(11) | R | | R | 1999Bi11 | PR A59 4295 (99) |
| | | | | | +0.24(1) | | | AB | 1965Ch19 | PPS 86 1145 (65) |
| | | | | | 0.324(3) | | | LRDRS | 1992Be68 | PR A46 5774 (92) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|------------------------|-------|----------------|------|-------------|--------|-----------------------------------|--|
| 22 Ti 50 | 1554 | 1.12 ps | 2+ | +2,89(15) | | | TF | 2000Sp08 | PR C62 031301 (00) |
| | | | | | | | CER | 1975To06 | NP A250 381 (75) |
| | | | | | | | | CER | 1970Ha24 |
| | 3198 | 0.42 ns | 6+ | +9.3(10) | | | IPAD | 1976Bo25 | NP A266 457 (76) |
| 22 Ti 52 | 1050 | 3.6 ps | 2+ | +1.7(4) | | | TF | 2006SP02 | PL B633 219 (06) |
| | 2318 | 3.3 ps | 4+ | +1.8(6) | | | TF | 2006SP02 | PL B633 219 (06) |
| 23 V 46 | 802 | 1.02 ms | 3+ | +1.64(3) | | | TDPAD | 1982Si15 | ZP A309 71 (82) |
| 23 V 48 | 0 | 15.94 d | 4+ | 2.012 (11) | | [51V] | NMR/ON | 1980Bu11 | HFI 8 59 (80) |
| | 308 | 7.1 ns | 2+ | +0.44(2) | | | TDPAC | 1987Bi14 | HFI 34 61 (87) |
| | | | | | | | IPAD | 1978Ta17 | CJP 56 1402 (78) |
| | | | | +0.28(10) | | [51V] | | | |
| 23 V 49 | 0 | 330 d | 7/2- | 4.47(5) | | [51V] | EPR | 1957We17 | BAPS 2 31 (57) |
| | 153 | 19.9 ns | 3/2- | +2.37(12) | | | TDPAD | 1972Vi06 | PL 40B 638 (72) |
| 23 V 50 | 0 | 1.5×10^{17} y | 6+ | +3.3456889(14) | | | N | 1981Ha26 | ZP A300 111 (81) |
| | | | | | | | N | 1982Bi03 | JP C15 L349 (82) |
| | | | | | | | ABLDF | 2008Py02/1979Er04 | Mol Phys 106 1965 (2008)/PL B85 319 (1979) |
| | | | | | | | N | 1981Ha26 | ZP A300 111 (81) |
| 23 V 51 | 0 | stable | 7/2- | +5.1487057(2) | | | N | 1981Ha26/1951Pr02 | ZP A300 111 (81)/PR 81 20 (51) |
| | | | | | | | LRFS | 1989Un01 | ZP D11 259 (89) |
| | | | | | | | AB | 1967Ch09/1967Ch10 | PR 156 64 (67)/PR 156 71 (67) |
| | | | | | | | PPR | 1973Cl10 | NP A213 493 (73) |
| | | | | | | | CEAD | 1968Ke09 | NP A120 540 (68) |
| | | | | | | | | 320 | 0.17 ns |
| 24 Cr 49 | 0 | 41.9 m | 5/2- | 0.476(3) | | [53Cr] | AB | 1970Jo27 | PS 2 16 (70) |
| | 4367 | 1.9 ps | 19/2- | +7.4(11) | | [50Cr,46Ti] | TF | 1993Pa22 | PR C48 1573 (93) |
| 24 Cr 50 | 783 | 9.2 ps | 2+ | +1.24(6) | | | TF | 2000Er06 | PR C62 024305 (00) |
| | | | | | | | TF | 1994Pa34 | PR C50 2608 (94) |
| | | | | | | | IMPAC | 1977Fa07 | NP A291 241 (77) |
| | | | | | | | TF | 1987Pa28 | PR C36 2088 (87) |
| | | | | | | | CER | 1975To06 | NP A250 381 (75) |
| | | | | | | | TF | 2000Er06 | PR C62 024305 (00) |
| | | | | | | | TF | 1994Pa34 | PR C50 2608 (94) |
| | | | | | | | TF | 1994Pa34 | PR C50 2608 (94) |
| | 1881 | 2.2 ps | 4+ | +3.1(5) | | | | | |
| | | | | +1.7(4) | | | | | |
| | 3164 | 1.2 ps | 6+ | +3(1) | | | | | |
| | 4743 | <2.7 ps | 8+ | +4.3(7) | | | | | |
| | | | | | | | | | |
| 24 Cr 51 | 0 | 27.7 d | 7/2- | (-)0.934(5) | | [53Cr] | AB | 1970Ad07 | ArKf 40 457 (70) |
| | 749 | 7.25 ns | 3/2- | -0.86(12) | | [19F 197] | TDPAD | 1974Ko10 | IzF 38 155 (74) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|----------|------|-----------------------|------|-------------|----------------|-------------|-------------|-----------------------------------|--|---------------------------------|
| 24 Cr 52 | 1434 | 0.707 ps | 2+ | +2.41(13) | | | TF | 2000Er06 | PR C62 024305 (00) | |
| | | | | +3.0(5) | | [56Fe 847] | TF | 1987St07 | HFI 36 75 (87) | |
| | | | | +3.2(22) | | | TF | 1987Pa28 | PR C36 2088 (87) | |
| | | | | | -0.08(2) | R | ES | 1989Ra17 | JPJS 34 387 (73) | |
| 24 Cr 53 | 0 | stable | 3/2- | -0.47454(3) | | [14N] | N | 1953Al06 | HPAc 26 426 (53) | |
| | | | | | -0.15(5) st | R | ABLDF | 1982Er09 | ZP A309 1 (82) | |
| | | | | | +0.04(7) | | CER | 1973Th03 | PR C7 1413 (73) | |
| | | | | | -0.028(4) st | | ENDOR | 1974Ma35 | CJP 52 1731 (74) | |
| 24 Cr 54 | 835 | 8.0 ps | 2+ | +1.68(11) | | | TF | 2001Wa36 | PR C64 034320 (01) | |
| | | | | +1.1(2) | | | IMPAC | 1977Fa07 | NP A291 241 (77) | |
| | | | | +1.1(3) | | | TF | 1987Pa28 | PR C36 2088 (87) | |
| | | | | | -0.21(8) | R | CER | 1975To06 | NP A250 381 (75) | |
| 25 Mn 50 | 229 | 1.75 m | 5+ | +2.76(1) | | [55Mn] | TLS | 2010CH15 | PL B690 346 (10) | |
| | | | | | +0.83(12) | | [55Mn] | TLS | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.80(12) | | [55Mn] | TLS | 2010CH15 | PL B690 346 (10) |
| 25 Mn 51 | 0 | stable | 5/2- | 3.5683(13) | | [55Mn] | AB | 1971Jo10 | NP A166 306 (71) | |
| | | | | | 0.41(8) | | [55Mn] | AB | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.42(7) st | | [55Mn] | AB | 1971Jo10 | NP A166 306 (71) |
| | | | | 0 | 5.80 d | 6+ | +3.0622(12) | | [55Mn] | AB |
| 25 Mn 52 | 378 | 21.1 m | 2+ | +3.0632(13) | | [55Mn] | NMR/ON | 1970Ni11 | Phca 50 259 (70) | |
| | | | | | +0.50(7) st | R | [55Mn] | NMR/ON | 1970Ni11 | Phca 50 259 (70) |
| | | | | | 0.00768(8) | | [55Mn] | AB | 1971Jo10 | NP A166 306 (71) |
| 25 Mn 53 | 0 | 3.7x10 ⁶ y | 7/2- | 5.035(1) | | [55Mn] | TLS | 2010CH15 | PL B690 346 (10) | |
| | | | | | 5.024(7) | | [55Mn] | EPR | 1956Do45 | PR 104 1378 (56) |
| | | | | | +0.17(3) | R | [55Mn] | TLS | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.16(3) | | [55Mn] | TLS | 2010CH15 | PL B690 346 (10) |
| | 378 | 117 ps | 5/2- | +3.3(3) | | | IMPAC | 1975Si08 | NP A243 1 (75) | |
| 25 Mn 54 | 0 | 312 d | 3+ | 3.306(1) | | [55Mn] | TLS | 2010CH15 | PL B690 346 (10) | |
| | | | | | +3.2819(13) | | [55Mn] | NMR/ON | 1970Ni11 | Phca 50 259 (70) |
| | | | | | +0.37(3) | R | [55Mn] | TLS | 2010CH15 | PL B690 346 (10) |
| | | | | | +0.33(3) st | | [55Mn] | NMR/ON | 1970Ni11 | Phca 50 259 (70) |
| 25 Mn 55 | 0 | stable | 5/2- | 3.4532(13) | | | ENDOR | 1971Sa16 | CJP 49 2276 (71) | |
| | | | | | +3.46871790(9) | | [2H] | N | 1974Lu08 | ZNat 29a 1467 (74) |
| | | | | | +0.330(10) | R | ABLDF | 2008Py02/1979De19 | /Mol Phys 106 1965 (2008)/ZP A291 207 (79) | |
| | | | | +0.31(2) st | | | OL, R | 1979De19/1969Ha22 | ZP A291 207 (79)/PL 29A 486 (69) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | | | | |
|----------|------|---------|------|--------------|-------------|-------------|---------------|-----------------------------------|-----------------------------------|-----------------------------------|--|-----------|-----------------------------------|---|
| 25 Mn 56 | 0 | 2.58 h | 3+ | +3.2266(2) | | | | | | | | | | |
| | | | | | | | [55Mn] | AB, OP/RD | 1961Ch05 | PR 122 891 (61) | | | | |
| | | | | | | | [55Mn] | TLS | 2013StZz | IAEA Rept INDC(NDS)-0650 (2013) | | | | |
| | | | | | +0.48(15) | R | | | | | | | | |
| | | | | | +0.47(15) | | | | 2010CH15 | PL B690 346 (10) | | | | |
| 26 Fe 53 | 741 | 64 ns | 3/2- | -0.386(15) | | | TDPAD | 1989Ra17 | ARHMI 64 (74) | | | | | |
| 26 Fe 54 | 1408 | 0.80 ps | 2+ | +1.70(13) | | | [56Fe 847] R | TF, R | 2009EA01 | PR C79 024304 (09) | | | | |
| | | | | | | | [56Fe 847] | TF | 2000Sp08 | PR C62 031301 (00) | | | | |
| | | | | | | | | TF | 1992SP02 | ZP A342 17 (92) | | | | |
| | | | | | | | [56Fe 847] | TF | 1977Br23 | PR C16 899 (77) | | | | |
| | | | | | | | | IMPAC | 1977Fa07 | NP A291 241 (77) | | | | |
| | | | | | | | | TF | 1974Hu01 | PR C9 1954 (74) | | | | |
| | | | | | | | | CER | 1981Le02 | PR C23 244 (81) | | | | |
| | | | | | | | | TDPAD | 1971He21 | PRL 27 1587 (71) | | | | |
| | | | | | | | | TDPAD | 1983Ra03 | PR C27 602 (83) | | | | |
| | | | | | | 2950 | 1.22 ns | 6+ | 8.2(2) | | | TDPAD, TF | 1984Ha07 | NP A414 316 (84) |
| | 6527 | 367 ns | 10+ | +7.28(1) | | | TDPAD, R | 1983Ra03/1978Da09 | PR C27 602 (83)/PL 76B 51 (78) | | | | | |
| | | | | | +0.30(4) st | R | [57Fe 14 keV] | | | | | | | |
| | | | | | 0.28(4) | | | | | | | | | |
| 26 Fe 55 | 931 | 8.3 ps | 5/2- | +2.7(12) | | | | TDPAD | 1973Ke03 | CJP 51 707 (73) | | | | |
| | | | | | | | | IPAD | 1973Ke03 | CJP 51 707 (73) | | | | |
| | | | | | | | | TDPAD | 1973Ke03 | CJP 51 707 (73) | | | | |
| | 1317 | 2.1 ps | 7/2- | +2(2) | | | | | | | | | | |
| | 1408 | 38.3 ps | 7/2- | -2.4(5) | | | | | | | | | | |
| 26 Fe 56 | 847 | 6.9 ps | 2+ | 1.02(11) | | | | TF, R | 2009EA01 | PR C79 024303 (09) | | | | |
| | | | | | | | | IMPAC IPAC,R | 1977Br23 | PR C16 899 (77) | | | | |
| | | | | | | | | CER | 1981Le02 | PR C23 244 (81) | | | | |
| | | | | | | | | CER | 1971Th14 | PR C4 1699 (71) | | | | |
| | | | | 1.22(16) | | | | | | | | | | |
| | | | | | -0.19(8) | | | | | | | | | |
| | | | | | -0.23(3) | R | | | | | | | | |
| 26 Fe 57 | 0 | stable | 1/2- | +0.09044(7) | | | | ENDOR | 1965Lo11 | PR 139 A991 (65) | | | | |
| | | | | | | | | N | 1974Sa25 | ZNat 29a 1763 (74) | | | | |
| | | | | | | | | N | 1974Sa25 | ZNat 29a 1763 (74) | | | | |
| | | | | | | | | [2H] | | | | | | |
| | | | | | | | | [2H] | | | | | | |
| | | | | | | | | [57Fe] | 1965Pe15/1962Pr10 | PR 140 A875 (65)/PR 128 2207 (62) | | | | |
| | | | | | | | | | +0.15(2) | | | Theory | 2001MA64 | PRL 87 062701 (01) |
| | | | | | | | | | 0.11 | | | R | 1998Ha40 | ZNat 53a 358 (98) |
| | | | | | | | | | +0.160(8) | | | R | 2008Py02/1995Du17 | Mol Phys 106 1965 (2008)/PRL 75 3545 (95) |
| | | | | | | | | | 0.14(2) | | | R | 92Ru07 | BRASP 56 (7) 201 (92) |
| | | | | +0.082(8) st | | | ME, R | 1981Du12 | PRL 46 1611 (81) | | | | | |
| | | | | +0.209(5) | | | ME, R | 1976Si73 | JPCR 5 1093 (76) | | | | | |
| | 136 | 8.80 ns | 5/2- | +0.935(10) | | | TDPAD | 1979Fa07 | PS 20 163 (79) | | | | | |
| | 367 | 6.9 ps | 3/2- | <0.6 | | | IMPAC | 1969Sp05 | NP A137 658 (69) | | | | | |
| 26 Fe 58 | 811 | 6.7 ps | 2+ | +0.94(5) | | | | | | | | | | |
| | | | | | | | [56Fe 847] R | TF, R | 2009EA01 | PR C79 024304 (09) | | | | |
| | | | | +0.9(3) | | | | | 1977Br23 | PR C16 899 (77) | | | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|--------------|--------|------------|-------------|---|-------------|-------------------|-----------------------------------|---|
| | | | | +0.9(2) | | | | | 1969Si13/1977Br23 | NP A137 278 (69)/PR C16 899 (77) |
| | | | | | -0.27(5) | R | | CER | 1981Le02 | PR C23 244 (81) |
| 26 Fe 59 | 0 | 44.6 d | 3/2- | -0.3358(4) | | | | NMR/ON(β) | 1996Oh02 | PR C54 554 (96) |
| | | | | 0.29(3) | | | | NO/S | 1976Kr10 | PR C14 653 (76) |
| 26 Fe 61 | 861 | 245 ns | (9/2+) | -1.031(9) | | | | TDPAD | 2004MA80 | |
| | | | | | 0.44(6) | | [57Fe 14] | TDPAD | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.41(6) | | [57Fe 14] | TDPAD | 2007VE05 | PR C75 051302 (07) |
| 27 Co 55 | 0 | 17.5 h | 7/2- | +4.822(3) | | | | NMR/ON | 1973Ca06 | NP A201 561 (73)/HFI 2 45 (76) |
| 27 Co 56 | 0 | 78.8 d | 4+ | 3.85(1) | | | [60Co] | NMR/ON | 1977St36 | JP C10 3651 (77) |
| | | | | 3.99(6) | | | [60Co] | NMR/ON | 1986Ro28 | CzJP B36 1331 (86) |
| | | | | | +0.25(9) | R | [58Co] | NMR/ON | 1988Ba87 | PR B37 4911 (88) |
| 27 Co 57 | 0 | 271 d | 7/2- | +4.720(10) | | | [60Co] | NMR/ON | 1972Ni01 | JP C10 3651 (77)/Phca 57 1 (72) |
| | | | | 4.719(12) | | | [59Co] | NMR/ME | 1974La19 | ZP 270 233 (74) |
| | | | | 4.78(6) | | | [60Co] | NMR/ON | 1986Ro28 | CzJP B36 1331 (86) |
| | | | | | +0.54(10) | R | [59Co] | NMR/ON | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.52(9) | | [59Co] | NMR/ON | 1972Ni01 | Phca 57 1 (72) |
| | 1378 | 19 ps | 3/2- | +3.0(6) | | | [60Co] | IPAD | 1970Va10 | ZP 233 477 (70) |
| 27 Co 58 | 0 | 70.8 d | 2+ | +4.044(8) | | | [59Co] | NMR/ON | 1972Ni01 | Phca 57 1 (72) |
| | | | | +4.040(14) | | | [59Co] | EPR | 1957Do38 | PR 108 60 (57) |
| | | | | | +0.23(3) | R | [59Co] | NMR/ON | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.22(3) | | [59Co] | NMR/ON | 1972Ni01 | Phca 57 1 (72) |
| | 53 | 10.4 μ s | 4+ | +4.184(8) | | | | SOP/RDAD | 1970Be33 | NP A151 193 (70) |
| | 111 | 0.18 ns | 3+ | +2.2(4) | | | | IPAD | 1972Ha61 | NP A194 (249) (72) |
| 27 Co 59 | 0 | stable | 7/2- | +4.627(9) | | | | N | 1967Wa16/1951Pr02 | PR 162 301 (67)/PR 81 20 (51) |
| | | | | | +0.42(3) | R | | AB | 2008Py02/1960Eh03 | Mol Phys 106 1965 (2008)ZP 159 230 (60) |
| | | | | | +0.35(3) | | | LRFS | 1990Gu28 | ZP D17 181 (90) |
| | | | | | +0.41(1) | | | R | 1993De41 | PR A48 2752 (93) |
| | | | | | +0.40(4) | | | AB | 1960Eh03 | ZP 159 230 (60) |
| | | | | | +0.42(3) st | | | O | 1969Mu11 | JPJa 27 1690 (69) |
| | 1292 | 555 ps | 3/2- | +2.54(12) | | | | IPAC | 1974Ba08 | PS 9 79 (74) |
| 27 Co 60 | 0 | 5.271 y | 5+ | +3.799(8) | | | [59Co] | NMR/ON | 1972Ni01 | Phca 57 1 (72) |
| | | | | | +0.46(6) | | [59Co] | NMR/ON | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.44(5) | | [59Co] | NMR/ON | 1972Ni01 | Phca 57 1 (72) |
| | 59 | 10.5 m | 2+ | +4.40(9) | | | | AB | 1969HuZY | Cf69Mntr 91 (69) |
| | | | | | +0.3(4) | | | AB | 1969HuZY | Cf69Mntr 91 (69) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|--------------|------|----------------------------------|----------------------|-------------|---------------------------|--|---|
| 28 Ni 55 | 0 | 204 ms | 3/2- | (-)0.98(3) | | | β -NMR | 2009BE22 | PR C79 064305 (09) |
| 28 Ni 57 | 0 | 36 h | 3/2- | -0.7975(14) 0.88(6) | | | NMR/ON(β) NO/S | 1996Oh02 1975Ro06 | PR C54 554 (96) PL 55B 450 (75) |
| 28 Ni 58 | 1454 | 0.644 ps | 2+ | +0.076(17) -0.1(3) | | | TF TF CER | 2001KE02 1978Ha13 1974Le13 | PR C63 021302 PR C17 997 (78) NP A223 563 (74) |
| | | | | | -0.10(6) | R | | | |
| 28 Ni 59 | 339 | 83 ps | 5/2- | +0.35(15) | | | IPAD | 1974We05 | CJP 52 1137 (74) |
| 28 Ni 60 | 1332 | 0.713 ps | 2+ | +0.32(6) +0.2(3) | | | TF TF CER ES | 2001KE02 1978Ha13 1974Le13 1972Li12 | PR C63 021302 PR C17 997 (78) NP A223 563 (74) PL 38B 475 (72) |
| | | | | | +0.03(5) -0.10(2) | R | | | |
| 28 Ni 61 | 0 | stable | 3/2- | -0.75002(4) | | [17O] | N, R | 1964Dr02/1976Fu06 | PL 11 114 (64)/JPCR 5 835 (76) |
| | | | | | +0.162(15) st | R | AB | 2008Py02/1968Ch10 | Mol Phys 106 1965 (2008)/PR 170 136 (68) |
| | 67 | 5.34 ns | 5/2- | +0.480(6) | | [61Ni] | ME | 1971Go31 | ZNat 26a 1931 (71) |
| | | | | | -0.20(3) st | R | ME | 1971Go31 | ZNat 26a 1931 (71) |
| | | | | | -0.08(7) st | | ME | 1976Ob01 | JINC 38 19 (76) |
| 28 Ni 62 | 1173 | 1.43 ps | 2+ | +0.33(5) +0.68(14) +0.6(2) | | | TF TF TF CER, R | 2001KE02 1988Sp04 1978Ha13 1974Le13 | PR C63 021302 ZP A331 29 (88) PR C17 997 (78) NP A223 563 (74) |
| | | | | | +0.05(12) | R | | | |
| 28 Ni 63 | 87 | 1.72 μ s | 5/2- | +0.752(3) | | [19F 197] | TDPAD | 1970BI06 | PL 32B 41 (70) |
| | 1294 | 9.35 ns | 9/2+ | -1.211(13) | | | TDPAD | | PR B40 7633 (89) |
| 28 Ni 64 | 1346 | 0.85 ps | 2+ | +0.37(6) +0.9(3) | | | TF TF CER | 2001KE02 1978Ha13 1971ChZK | PR C63 021302 (01) PR C17 997 (78) BAPS 16 625 (71) |
| | | | | | +0.4(2) | R | | | |
| 28 Ni 65 | 0 | 2.520 h | 5/2- | 0.69(6) | | | NO/S | 1976Kr09 | PR C14 650 (76) |
| | 1017 | 26.6 ns | 9/2+ | -1.332(14) | | [63Ni 1294] | TDPAD | 2005GE09 | JPhys G31 S1439 (05) |
| 28 Ni 67 | 0 | 21 s | 1/2- | +0.601(5) | | | NMR/ON(β) | 2000Ri14 | PRL 85 1392 (00) |
| | 1007 | 13 μ s | 9/2+ | 0.56(3) | | | TDPAD | 2002Ge16 | JP G28 2993 (02) |
| 29 Cu 57 | 0 | 196 ms | 3/2- | +2.582(7) 2.00(5) | | [63Cu] | GCLS β -NMR | 2010CO01 2006MI07 | PR C81 014314 (10) PRL 96 1-2501 (06) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|----------|---------|---------|-----------|---------------|--------------|--------------------------|--------------------------|-----------------------------------|--|---------------------------------|
| 29 Cu 58 | 0 | 3.2 s | 1+ | +0.570(2) | | [65Cu] | CLS | 2011Vi03 | PL B703 34 (2011) | |
| | | | | +0.479(13) | | [63Cu] | GCLS | 2010CO01 | PR C81 014314 (10) | |
| | | | | 0.46(3) | | | β -NMR | 2010MI** | HFI 197 143 (10) | |
| | | | | +0.52(8) | | | LRIS | 2008ST12 | PR C77 067302 (08) | |
| | | | | | -0.16(3) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | -0.15(3) | | [65Cu] | CLS | 2011Vi03 | PL B703 34 (2011) | |
| 29 Cu 59 | 0 | 81.5 s | 3/2- | +1.8910(9) | | [65Cu] | CLS | 2011Vi03 | PL B703 34 (2011) | |
| | | | | +1.910(4) | | [65Cu] | GCLS | 2010CO01 | PR C81 014314 (10) | |
| | | | | +1.891(9) | | | NMR/ON(β) | 2004GO39 | PR C70 014312 (04) | |
| | | | | +1.84(3) | | | ISLS | 2008ST12 | PR C77 067302 (08) | |
| | | | | | -0.20(2) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | -0.19(2) | | [65Cu] | CLS | 2011Vi03 | PL B703 34 (2011) | |
| 29 Cu 60 | 0 | 23.4 m | 2+ | +1.2186(5) | | [65Cu] | CLS | 2011Vi03 | PL B703 34 (2011) | |
| | | | | +1.219(3) | | [63Cu] | AB | 1968Ph04 | PR 169 917 (68) | |
| | | | | | +0.121(13) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.116(12) | | [65Cu] | CLS | 2011Vi03 | PL B703 34 (2011) |
| 29 Cu 61 | 0 | 3.41 h | 3/2- | +2.1083(5) | | [65Cu] | CLS | 2011Vi03 | PL B703 34 (2011) | |
| | | | | +2.1089(11) | | [65Cu] | CLS | 2010Vi07 | PR C82 064311 (10) | |
| | | | | +2.14(4) | | [63Cu] | AB | 1966Do01 | PR 142 638 (66) | |
| | | | | | -0.221(10) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.211(10) | | [65Cu] | CLS | 2011Vi03 | PL B703 34 (2011) |
| | | | | -0.21(2) | | [65Cu] | CLS | 2010Vi07 | PR C82 064311 (10) | |
| 29 Cu 62 | 0 | 9.73 m | 1+ | -0.3796(4) | | [65Cu] | CLS | 2011Vi03 | PL B703 34 (2011) | |
| | | | | -0.3809(12) | | [65Cu] | CLS | 2010Vi07 | PR C82 064311 (10) | |
| | | | | -0.380(4) | | [63Cu] | AB | 1968Ph04 | PR 169 917 (68) | |
| | | | | | -0.022(4) | R | [65Cu] | CLS | 2011Vi03 | PL B703 34 (2011) |
| | | 0.00(2) | | [65Cu] | CLS | 2010Vi07 | PR C82 064311 (10) | | | |
| | 41 | 4.77 ns | 2+ | +1.10(10) | | | TDPAC | 1993Lo10 | HFI 77 103 (93) | |
| | | | | +1.32(3) | | | TDPAD | 1973Bi07 | ZP 263 169 (73) | |
| 390 | 11.1 ns | 4+ | +2.67(16) | | | TDPAD | 1973Bi07 | ZP 263 169 (73) | | |
| 29 Cu 63 | 0 | stable | 3/2- | +2.2236(4) | | [65Cu] | CLS | 2010Vi07 | PR C82 064311 (10) | |
| | | | | 2.227206(3) | | [23Na] | N | 1978Lu08 | ZP A288 17 (78) | |
| | | | | 2.2273456(14) | | [11B] | N | 1978Lu08 | ZP A288 17 (78) | |
| | | | | | -0.211(4) | | [65Cu] | CLS | 2010Vi07 | PR C82 064311 (10) |
| | | | | | -0.211(4) st | | [65Cu] | O, R | 1986St16 | ZNat 41a 24 (86) |
| | | | | 0.220(15) a | R | | Mu-X | 2008Py02/1982Ef01 | Mol Phys 106 1965 (2008)/ZP A309 77 (82) | |
| 4498 | 4.08 ns | 17/2+ | +1.56(10) | | [62Cu 390] | IPAD | 1983Ka24 | NP A406 533 (83) | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|----------|------|--------------|-------|-------------|--------------|-------------|-------------------|--------------------------|-----------------------------------|--|
| 29 Cu 64 | 0 | 12.7 h | 1+ | -0.2164(4) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) | |
| | | | | -0.217(2) | | [63Cu] | AB | 1966Do01 | PR 142 638 (66) | |
| | | | | | +0.75(9) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.072(9) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| | 1594 | 20.4 ns | 6- | +1.06(3) | | | TDPAD | 1972Bl16 | NP A197 620 (72) | |
| 29 Cu 65 | 0 | stable | 3/2- | +2.3817(3) | | | AB/D | | Cf66 Paris, 355 (66) | |
| | | | | 2.3816(2) | | [63Cu] | N | 1978Lu08 | ZP A288 17 (78) | |
| | | | | | -0.204(14) | | | Mu-X | 2008Py02/1982Ef01 | Mol Phys 106 1965 (2008)/ZP A309 77 (82) |
| | | | | | -0.195(4) st | | | O, R | 1972St38 | PR A6 1702 (72) |
| | 1115 | 0.29 ps | 5/2- | +4.5(9) | | | IPAD | 1979Da20 | IzF 43 2148 (79) | |
| 29 Cu 66 | 0 | 5.1 m | 1+ | -0.2823(8) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) | |
| | | | | -0.282(2) | | [65Cu] | AB | 1969Cu09 | JP A2 658 (69) | |
| | | | | | +0.059(14) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.056(13) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| | | | | | | | | TDPAD | 1972Bl16 | NP A197 620 (72) |
| | 1154 | 0.60 μ s | 6- | +1.038(3) | | | TDPAD | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | |
| | | | | | (+)0.195(13) | R | [63,65Cu] | TDPAD | 2011Lo03 | PL B694 316 (2011) |
| | | | | | 0.186(12) | | [63,65Cu] | TDPAD | | |
| 29 Cu 67 | 0 | 61.83 h | 3/2- | +2.5142(6) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) | |
| | | | | +2.54(2) | | | NMR/ON(β) | 2000Ri23 | HFI 129 131 (2000) | |
| | | | | | -0.182(8) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.174(8) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| 29 Cu 68 | 0 | 31.1 s | 1+ | +2.3933(6) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) | |
| | | | | + 2.6(3) | | [65 Cu] | LRIS | 2004Gh13 | PR C65 024315 (04) | |
| | | | | | -0.086(14) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.082(13) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| | | | | | | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| | | | | | | | [65 Cu] | LRIS | 2004Gh13 | PR C65 024315 (04) |
| | 637 | 3.75 m | 6- | +1.1548(6) | | | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | |
| | | | | + 1.3(6) | | | CLS | 2010VI07 | PR C82 064311 (10) | |
| | | | | | -0.46(2) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.44(2) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| 29 Cu 69 | 0 | 2.85 m | 3/2- | +2.8383(10) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) | |
| | | | | +2.84(1) | | | NMR/ON(β) | 2000Ri14 | PRL 85 1392 (00) | |
| | | | | | -0.154(17) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.147(16) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| | 2714 | 0.36 μ s | 13/2+ | 1.46(16) | | | TDPAD | 2002Ge16 | JP G28 2993 (02) | |
| 29 Cu 70 | 0 | 44.5 s | 6- | +1.3666(5) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) | |
| | | | | | (+)1.3(5) | | [65 Cu] | LRIS | 2004Gh13 | PR C65 024315 (04) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|-----|---------|------|-------------|------------|---|-------------|----------|--------------------------|---------------------------------|
| | | | | | -0.298(15) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.285(14) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| | 101 | 33 s | 3- | -3.3641(15) | | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| | | | | (-3.5(4)) | | | [65 Cu] | LRIS | 2004Gh13 | PR C65 024315 (04) |
| | | | | | -0.14(4) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.13(4) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| | 242 | 6.6 s | 1+ | +1.7779(15) | | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| | | | | +1.9(2) | | | [65 Cu] | LRIS | 2004Gh13 | PR C65 024315 (04) |
| | | | | | -0.12(3) | R | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| 29 Cu 71 | 0 | 19.5 s | 3/2- | +2.2747(8) | | | [65 Cu] | LRIS/CLS | 2009FL03 | PRL 103 142501 (09) |
| | | | | +2.28(1) | | | | NMR/ON | 2008ST01 | PR C77 014315 (08) |
| | | | | | -0.200(17) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.190(16) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| 29 Cu 72 | 0 | 6.62 s | 2- | -1.3472(10) | | R | [65Cu] | RILIS | 2010FI02 | PR C82 041302(R) (10) |
| | | | | | +0.08(2) | R | [65Cu] | RILIS | 2010FI02 | PR C82 041302(R) (10) |
| 29 Cu 73 | 0 | 4.2 s | 3/2- | +1.7426(8) | | | [65 Cu] | ISLS/CLS | 2009FL03 | PRL 103 142501 (2009) |
| | | | | | -0.210(10) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.200(10) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| 29 Cu 74 | 0 | 1.63 s | 2- | -1.068(3) | | R | [65Cu] | RILIS | 2010FI02 | PR C82 041302(R) (10) |
| | | | | | +0.27(3) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.26(3) | | [65Cu] | RILIS | 2010FI02 | PR C82 041302(R) (10) |
| 29 Cu 75 | 0 | 1.22 s | 5/2- | +1.0062(13) | | | [65 Cu] | ISLS/CLS | 2009FL03 | PRL 103 142501 (2009) |
| | | | | +0.99(5) | | | [63Cu] | ISLS | 2011Ko36 | PR C84 034320 (2011) |
| | | | | | -0.281(17) | R | [65Cu] | CLS/R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.269(16) | | [65Cu] | CLS | 2010VI07 | PR C82 064311 (10) |
| 29 Cu 76 | 0 | 641 ms | (6-) | 0.0(4) | | | [63Cu] | ISLS | 2011Ko36 | PR C84 034320 (2011) |
| 29 Cu 77 | 0 | 467 ms | 5/2- | +1.61(5) | | | [63Cu] | ISLS | 2011Ko36 | PR C84 034320 (2011) |
| 30 Zn 62 | 954 | 2.9 ps | 2+ | +0.7(2) | | | | TF | 2002Ke02 | PR C65 034308 (02) |
| 30 Zn 63 | 0 | 38.1 m | 3/2- | -0.28164(5) | | | [67Zn] | OD | 1969La05 | PR 177 1606 (69) |
| | | | | | +0.29(3) | R | [67Zn] | OD | 1969La05 | PR 177 1606 (69) |
| 30 Zn 64 | 992 | 1.85 ps | 2+ | +0.89(6) | | | | TF | 2005LE12 | PR C71 034303 (2005) |
| | | | | +0.89(9) | | | | TF | 2002Ke02 | PR C65 034308 (02) |
| | | | | +0.9(2) | | | | IMPAC | 1979Fa06 | ZP A291 93 (79) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|-------------|------|----------------|----------------------|-------------|-----------------|-----------------------------------|-----------------------|
| | | | | | -0.124(12) | | ES | 1976Ne06 | NP A263 249 (76) |
| | | | | | -0.14(2) | R | ES, R | 1981Ko06 | JP G7 L63 (81) |
| | | | | | -0.32(6) or -0.26(6) | | CER | 1988Sa32 | PR C38 2439 (88) |
| | 2307 | 0.78 ps | 4+ | +2.1(6) | | | TF | 2005LE12 | PR C71 034303 (2005) |
| | 2999 | 0.15 ps | 3+ | +1.5(9) | | | TF | 2005LE12 | PR C71 034303 (2005) |
| | 4635 | 0.1 ns | 7- | 1.6(3) | | | RIGV | 1983Ba69 | ZP A314 55 (83) |
| 30 Zn 65 | 0 | 244.1 d | 5/2- | +0.7690(2) | | [67Zn] | OD | 1964By01 | PR 134 A47 (64) |
| | | | | | -0.023(2) | R | OD | 1964By01 | PR 134 A47 (64) |
| | | | | | -0.3(2) | | NO/S, R | 1985Ha41 | HFI 22 19 (85) |
| | 115 | 0.45 ns | 3/2- | -0.8(2) | | [67Zn 185] | IPAD | 1975We08 | NP A241 332 (75) |
| | 207 | 0.15 ns | 3/2- | +0.7(3) | | [67Zn 185] | IPAD | 1975We08 | NP A241 332 (75) |
| | 1066 | 574 ps | 9/2+ | 1.1(2) | | [67Zn 604] | R/IPAD | 1992Be51/1975WE08 | CJP 53 2544 (75) |
| | | | | | -1.7(5) | [67Zn 185] | IPAD | 1975We08 | NP A241 332 (75) |
| 30 Zn 66 | 1039 | 1.56 ps | 2+ | +1.06(10) | | | TF | 2006LE24 | PR C73 064305 (10) |
| | | | | +0.80(8) | | | TF | 2002Ke02 | PR C65 034308 (02) |
| | | | | +0.9(2) | | | IMPAC | 1979Fa06 | ZP A291 93 (79) |
| | | | | | -0.081(13) | R | ES, R | 1981Ko06 | JP G7 L63 (81) |
| | 2451 | 0.76 ps | 4+ | +2.6(8) | | | TF | 2006LE24 | PR C73 064305 (10) |
| | 2826 | 0.18 ps | 3- | +2.1(9) | | | TF | 2006LE24 | PR C73 064305 (10) |
| | 4074 | 30 ps | 6- | 0.9(2) h | | | RIGV | 1983Ba69 | ZP A314 55 (83) |
| | 4250 | 133 ps | 7- | 1.0(2) h | | | RIGV | 1983Ba69 | ZP A314 55 (83) |
| 30 Zn 67 | 0 | stable | 5/2- | +0.875479(9) | | [1H] | OP/RD, N | 1967Sp04 | PL 24A 430 (67) |
| | | | | +0.8752049(11) | | [37Cl] | N | 1973Ep02 | PL 45A 255 (73) |
| | | | | | +0.150(15) | R | R | 1969La05 | PR 177 1606 (69) |
| | 93 | 9.2 μ s | 1/2- | +0.587(11) | | | ME | 1988Ik02 | PR B38 6380 (88) |
| | 185 | 1.03 ns | 3/2- | +0.50(6) | | | IPAC | 1969Bo41 | APPo 36 1065 (69) |
| | 604 | 333 ns | 9/2+ | -1.097(9) | | [19F 197] | TDPAD | 1973Be56 | NP A215 486 (73) |
| | | | | | 0.54(5) | R | [67Zn] TDPAD | 1976Ch37 | ZP B24 177 (76) |
| 30 Zn 68 | 1077 | 1.61 ps | 2+ | +1.08(6) | | | TF/R | 2010Mo14 | PR C82 014301 (2010) |
| | | | | +1.07(12) | | | TF | 2007BO04 | PR C75 021302(R) (07) |
| | | | | +1.16(12) | | | TF | 2005LE38 | PR C72 044301 (05) |
| | | | | +1.10(8) | | | TF | 2005LE12 | PR C71 034303 (05) |
| | | | | +0.87(9) | | | TF | 2002Ke02 | PR C65 034308 (02) |
| | | | | +0.9(3) | | | IMPAC | 1979Fa06 | ZP A291 93 (79) |
| | | | | | -0.106(16) | R | ES, R | 1981Ko06 | JP G7 L63 (81) |
| | 1883 | 1.0 ps | 2+ | +1.1(2) | | | TF/R | 2010Mo14 | PR C82 014301 (2010) |
| | | | | +1.2(6) | | | TF | 2007BO04 | PR C75 021302(R) (07) |
| | | | | +1.0(3) | | | TF | 2005LE38 | PR C72 044301 (05) |
| | | | | +1.1(3) | | | TF | 2005LE12 | PR C71 034303 (05) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|----------|-------|------------|-------------|-------------|--------------|-----------------------------------|--|
| | 2417 | 0.79 ps | 4+ | +0.6(6) | | | TF/R | 2010MO14 | PR C82 014301 (2010) |
| | | | | +2.4(12) | | | TF | 2007BO04 | PR C75 021302(R) (07) |
| | | | | -1.2(12) | | | TF | 2005LE38 | PR C72 044301 (05) |
| | | | | -1.6(8) | | | TF | 2005LE12 | PR C71 034303 (05) |
| | 2750 | 0.26 ps | 3- | +1.2(16) | | | TF | 2007BO04 | PR C75 021302(R) (07) |
| | | | | +0.9(12) | | | TF | 2005LE38 | PR C72 044301 (05) |
| | | | | +1.2(9) | | | TF | 2005LE12 | PR C71 034303 (05) |
| 30 Zn 69 | 439 | 13.72 h | 9/2+ | 1.157(2) | | | NMR/ON, R | 1992Be51/1989He05 | HFI 75 301 (92)/ZP A332 247 (89) |
| | | | | | -0.45(7) | R | NO/S | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.51(5) | | NO/S | 1983Oe01 | ZP A310 233 (83) |
| 30 Zn 70 | 885 | 3.2 ps | 2+ | +0.76(4) | | | TF | 2009MU06 | PR C79 054310 (09) |
| | | | | +0.76(8) | | | TF | 2002Ke02 | PR C65 034308 (02) |
| | | | | +0.60(14) | | | IMPAC | 1979Fa06 | ZP A291 93 (79) |
| | | | | | -0.23(2) | | ES | 1976Ne06 | NP A263 249 (76) |
| | | | | | -0.24(3) | R | ES, R | 1981Ko06 | JP G7 L63 (81) |
| | 1759 | 1.9 ps | 2+ | +1.0(4) | | | TF | 2009MU06 | PR C79 054310 (09) |
| | 1786 | 1.9 ps | 4+ | 1.5(6) | | | TF | 2009MU06 | PR C79 054310 (09) |
| 30 Zn 71 | 158 | 3.94 h | 9/2+ | 1.052(6) | | | NMR/ON, R | 1992Be51/1989He05 | HFI 75 301 (92)/ZP A332 247 (89) |
| 30 Zn 72 | 653 | 20 ps | 2+ | +0.36(34) | | | HVTF | 2012Fi02 | PR C85 034334 (12) |
| 31 Ga 63 | 0 | 32.4 s | 3/2- | +0.1469(5) | | | CLS | 2012Pr11 | PR C86 034329 (2012) |
| | | | | | +0.212(4) | R | CLS | 2012Pr11 | PR C86 034329 (2012) |
| 31 Ga 66 | 66 | 23 ns | 2+ | 1.01(2) | | | TDPAD, R | 1976Le03 | NP A258 103 (76) |
| | 1464 | 57 ns | 7- | 0.90(2) | | | TDPAD | 1978Fi03 | NP A295 513 (78) |
| | | | | +0.89(2) | | | TDPAD | 1985Ra33 | HFI 26 855 (85) |
| | | | | | 0.78(4) | R | TDPAD | 1985Ra33 | HFI 26 855 (85) |
| | 3043 | 0.208 ns | 9+ | 4.2(9) | | | IPAC | 1987Ba45 | HFI 36 171 (87) |
| 31 Ga 67 | 0 | 78.3 h | 3/2- | +1.8507(3) | | | AB | 1968Eh02 | PR 176 25 (68) |
| | | | | +1.848(5) | | | CLS | 2010CH16 | PRL 104 252502 (2010) |
| | | | | | +0.197(2) | R | [69Ga][71Ga] | 2001Py02/1968Eh02 | Mol Phys 99 1617 (2001)/PR 176 25 (68) |
| | | | | | 0.195(5) st | | [69,71Ga] | 1968Eh02 | PR 176 25 (68) |
| | | | | | +0.198(16) | | [71Ga] | 2010CH16 | PRL 104 252502 (2010) |
| | 359 | 49 ps | 5/2- | 1.4(7) | | | [67Ga 3578] | 1986Ba79/1983Ba73 | HFI 30 291 (86)/HFI 15 63 (83) |
| | 3578 | 0.16 ns | 15/2+ | -1.7(5) | | | IPAD | 1986Ba79 | HFI 30 291 (86) |
| 31 Ga 68 | 0 | 68.1 m | 1+ | 0.01175(5) | | | AB | 1962Eh02 | PR 127 529 (62) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|---------|-------|-------------|--------------|---|--------------|----------|-----------------------------------|--|
| | 1230 | 64 ns | 7- | +0.74(2) | -0.0277(14) | R | [69,71Ga] | AB, R | 1972St38 | PR A6 1702 (72) |
| | | | | +0.72(2) | | | | TDPAD | 1978Fi03 | NP A295 513 (78) |
| | | | | | +0.72(2) | R | [69Ga] | TDPAD | 1985Ra33 | HFI 26 855 (85) |
| | | | | | | | | | 1985Ra33 | HFI 26 855 (85) |
| 31 Ga 69 | 0 | stable | 3/2- | +2.01659(5) | | | [23Na] | N | 1954Wa37 | ORNL-1775 (54) |
| | | | | +2.018(4) | | | [71Ga] | CLS | 2010CH16 | PRL 104 252502 (2010) |
| | | | | | +0.171(2) | R | | MS | 2008Py02 | Mol Phys 106 1965 (2008) |
| | | | | | +0.171(11) | | [71Ga] | CLS | 2010CH16 | PRL 104 252502 (2010) |
| | | | | | +0.1650(8) a | | | R | 1998Pe11 | CPL 295 347 (98) |
| | | | | | +0.173(3) a | | | R | 1998To** | CPL 291 414 (98) |
| | | | | | +0.168(5) st | | | AB, R | 1972St38 | PR A6 1702 (72) |
| | | | | | 0.17(3) st | | | ABLFS, R | 1983Jo02 | PL 93A 121 (83) |
| 31 Ga 70 | 0 | 21.1 m | 1+ | +0.571(2) | | | [69Ga] | CLS | 2011Pr11 | PR C86 034329 (2012) |
| | | | | | +0.105(7) | R | [69Ga] | CLS | 2011Pr11 | PR C86 034329 (2012) |
| | 879 | 22.7 ns | 4- | -0.26(10) | | | [19F 197] | TDPAD | 1976Ta09 | PR C14 329 (76) |
| 31 Ga 71 | 0 | stable | 3/2- | +2.56227(2) | | | [23Na] | N | 1954Wa37 | ORNL-1775 (54) |
| | | | | | +0.107(1) | R | | MS | 2008Py02 | Mol Phys 106 1965 (2008) |
| | | | | | +0.1040(8) | | | R | 1998Pe11 | CPL 295 347 (98) |
| | | | | | +0.109(2) | | | R | 1998To** | CPL 291 414 (98) |
| | | | | | +0.106(3) st | | | AB, R | 1972St38 | PR A6 1702 (72) |
| | | | | | 0.10(2) st | | | ABLFS, R | 1983Jo02 | PL 93A 121 (83) |
| 31 Ga 72 | 0 | 14.1 h | 3- | -0.134(4) | | | [71Ga] | LRS | 2011Ma45 | PR C84 024303 (2011) |
| | | | | -0.13224(2) | | | [69,71Ga] | AB | 1962Eh02 | PR 127 529 (62) |
| | | | | | +0.530(6) | R | [69Ga][71Ga] | AB,R | 2001Py02/1968Eh02 | Mol Phys 99 1617 (2001)/PR 176 25 (68) |
| | | | | | +0.54(3) | | [71Ga] | LRS | 2011Ma45 | PR C84 024303 (2011) |
| | | | | | +0.52(1) st | | [69,71Ga] | AB, R | 1972St38 | PR A6 1702 (72) |
| 31 Ga 73 | 0 | 4.86 h | 3/2- | +0.209(2) | | | [71Ga] | CLS | 2010Ch16 | PRL 104 252502 (10) |
| 31 Ga 74 | 0 | 8.12 m | if 3- | 0.00(8) | | | [71Ga] | LRS | 2011Ma45 | PR C84 024303 (2011) |
| | | | if 4- | 0.00(8) | | | [71Ga] | LRS | 2011Ma45 | PR C84 024303 (2011) |
| | | | if 3- | | +0.55(4) | R | [71Ga] | LRS | 2011Ma45 | PR C84 024303 (2011) |
| | | | if 4- | | +0.60(4) | R | [71Ga] | LRS | 2011Ma45 | PR C84 024303 (2011) |
| 31 Ga 75 | 0 | 126 s | 3/2- | +1.836(4) | | | [71Ga] | CLS | 2010Ch16 | PRL 104 252502 (10) |
| | | | | | -0.285(17) | R | [71Ga] | CLS | 2010Ch16 | PRL 104 252502 (10) |
| 31 Ga 76 | 0 | 32.6 s | (2+) | -0.946(4) | | | [71Ga] | LRS | 2011Ma45 | PR C84 024303 (2011) |
| | | | | | +0.33(2) | R | [71Ga] | LRS | 2011Ma45 | PR C84 024303 (2011) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | | | |
|----------|--------|-------------|---------|----------------------|-------------|---------------|---------------|-----------------------------------|---------------------------------------|---------------------------------------|-------------|------|--------------------------|------------------|
| 31 Ga 77 | 0 | 13.2 s | 3/2- | +2.020(3) | | | [71Ga] | CLS | 2010Ch16 | PRL 104 252502 (10) | | | | |
| | | | | | -0.208(13) | R | [71Ga] | CLS | 2010Ch16 | PRL 104 252502 (10) | | | | |
| 31 Ga 78 | 0 | 5.1 s | (2+) | -1.215(5) | | | [71Ga] | LRS | 2011Ma45 | PR C84 024303 (2011) | | | | |
| | | | | | +0.33(2) | R | [71Ga] | LRS | 2011Ma45 | PR C84 024303 (2011) | | | | |
| 31 Ga 79 | 0 | 2.85 s | 3/2- | +1.047(3) | | | [71Ga] | CLS | 2010Ch16 | PRL 104 252502 (10) | | | | |
| | | | | | +0.158(10) | R | [71Ga] | CLS | 2010Ch16 | PRL 104 252502 (10) | | | | |
| 31 Ga 80 | 0? | 0.2 - 1.7 s | (3-) | -1.425(5) | | | [71Ga] | CLS | 2010Ch50 | PR C82 051302(R) (10) | | | | |
| | | | | | +0.38(2) | R | [71Ga] | CLS | 2010Ch50 | PR C82 051302(R) (10) | | | | |
| | 0? | 0.2 - 1.7 s | (6-) | +0.036(4) | | | [71Ga] | CLS | 2010Ch50 | PR C82 051302(R) (10) | | | | |
| | | | | | +0.48(3) | R | [71Ga] | CLS | 2010Ch50 | PR C82 051302(R) (10) | | | | |
| 31 Ga 81 | 0 | 1.22 s | 5/2- | +1.747(5) | | | [71Ga] | CLS | 2010Ch16 | PRL 104 252502 (10) | | | | |
| | | | | | -0.048(8) | R | [71Ga] | CLS | 2010Ch16 | PRL 104 252502 (10) | | | | |
| 32 Ge 67 | 752 | 146 ns | 9/2+ | -0.849(12) | | | [69Ge 398] | TDPAD | 1991Le31 | NIMPR B56/57 851 (91) | | | | |
| | | | | | 0.92(9) | R | [73Ge 13 keV] | TDPAD | 1993Co17/1981Vi05 | HFI 80 1321 (1993)/HFI 10 1243 (1981) | | | | |
| 32 Ge 68 | 1016 | 2.9 ps | 2+ | +1.1(3) | | | | TF | 2005LE19 | | | | | |
| | | | | | 3696 | 0.48 ps | 6+ | +2.4# | | | [estimate] | TF | 1986Ba64 | JP G12 L295 (86) |
| | | | | | 3883 | 132 ps | 6- | 0.53(11) | | | [74Ge 596] | RIGV | 1982Ba42 | JP G8 1397 (82) |
| | | | | | 4054 | 118 ps | 7- | 0.78(12) | | | [74Ge 596] | RIGV | 1982Ba42 | JP G8 1397 (82) |
| | | | | | 4838 | 1.04 ps | 8+ | +0.8(3) | | | [68Ge 3696] | TF | 1986Ba64 | JP G12 L295 (86) |
| | | | | | 5050 | 0.49 ps | 8+ | -2.2(11) | | | [68Ge 3696] | TF | 1986Ba64 | JP G12 L295 (86) |
| 32 Ge 69 | 0 | 39.0 h | 5/2- | 0.735(7) | | | [73Ge] | AB | 1970OI02 | PR C2 228 (70) | | | | |
| | | | | | +0.027(6) | R | [73Ge] | AB | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) | | | | |
| | 398 | 2.8 μ s | 9/2+ | -1.001(3) | | | [73Ge] | AB | 1970OI02 | PR C2 228 (70) | | | | |
| | | | | | 0.024(5) st | | [73Ge] | SOP/RDAD | 1970Ch05 | PR C1 613 (70) | | | | |
| | | | | 0.75(8) | R | [73Ge 13 keV] | TDPAD | 1993Co17/1981Vi05 | HFI 80 1321 (1993)/HFI 10 1243 (1981) | | | | | |
| 32 Ge 70 | 1039 | 1.32 ps | 2+ | +0.88(8) | | | | TF | 2013Gu23 | PR C88 014301 (2013) | | | | |
| | | | | | +0.84(8) | | | TF | 2007BO41 | PR C76 054311 (07) | | | | |
| | | | | | +0.9(2) | | | TF | 2006LE31 | PR C74 024315 (06) | | | | |
| | | | | | +0.94(5) | | | TF | 1984Pa20 | JP G10 1759 (84) | | | | |
| | | | | | +0.8(2) | | | IMPAC | 1977Fa07 | NP A291 241 (77) | | | | |
| | | | | | +0.7(2) | | | TF | 1987La20 | AuJP 40 117 (87) | | | | |
| | | | | | +0.9(2) | | | IMPAC, R | 1977Fa07 | NP A291 241 (77) | | | | |
| | | | | | | | | CER | 1980Le16 | PR C22 1530 (80) | | | | |
| 1707 | 1.8 ps | 2+ | +1.3(6) | +0.03(6) or +0.09(6) | R | | TF | 2013Gu23 | PR C88 014301 (2013) | | | | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|--------------|------|---------------|-----------|-------------|----------|-----------------------------------|---|
| | | | | +0.8(12) | | | TF | 2006LE31 | PR C74 024315 (06) |
| | 2153 | 1.2 ps | 4+ | +0.9(14) | | | TF | 2013Gu23 | PR C88 014301 (2013) |
| | | | | +2.0(8) | | | TF | 2007BO41 | PR C76 054311 (07) |
| | 2562 | 0.6 ps | 3- | +0.3(9) | | | TF | 2007BO41 | PR C76 054311 (07) |
| 32 Ge 71 | 0 | 11.2 d | 1/2- | +0.547(5) | | [73Ge] | AB, R | 1966Ch02 | PR 141 15 (66)/PR C1 750 (70) |
| | 175 | 79 ns | 5/2- | +1.018(10) | | [19F 197] | TDPAD | 1968Mo12 | PL 27B 370 (68) |
| | 199 | 20.2 ms | 9/2+ | -1.0413(7) | | | NMR/AC | 1970Be29 | NP A150 282 (70) |
| | | | | | 0.34(5) | R | QIR | 1975Ri03/1976Br41 | PS 11 228 (75)/HFI 2 265 (76) |
| 32 Ge 72 | 834 | 3.29 ps | 2+ | +0.88(4) | | | TF | 2013Gu23 | PR C88 014301 (2013) |
| | | | | +0.80(7) | | | TF | 1984Pa20 | JP G10 1759 (84) |
| | | | | +0.74(9) | | | TF | 1987La20 | AuJP 40 117 (87) |
| | | | | +0.7(2) | | | IMPAC, R | 1977Fa07 | NP A291 241 (77) |
| | | | | | -0.13(6) | R | CER | 1980Le16 | PR C22 1530 (80) |
| | 1464 | 4.5 ps | 2+ | +0.8(4) | | | TF | 2013Gu23 | PR C88 014301 (2013) |
| | 1728 | 1.55 ps | 4+ | +1.6(5) | | | TF | 2013Gu23 | PR C88 014301 (2013) |
| 32 Ge 73 | 0 | stable | 9/2+ | -0.8794677(2) | | [2H] | N | 1974Sa25 | ZNat 29a 1763 (74) |
| | | | | | -0.196(1) | R | AB | 2008Py02/1999Ke17 | Mol Phys 106 1965 (2008)/Mol Phys 96 275 (1999) |
| | | | | | -0.17(3) | | AB, R | 1966Ch02 | PR 141 15 (66)/PR C1 750 (70)/ |
| | | | | | | | | 1970O102 | PR C2 228 (70) |
| | 13 | 2.86 μ s | 5/2+ | 1.08(3) | | | TDPAC | 1993Co17 | HFI 80 1321 (93) |
| | | | | -0.94(3) | | | TDPAC | 1975Ha37 | PL 58B 423 (75) |
| | | | | | 0.70(8) | [69Ge 398] | TDPAC | 1993Co17 | HFI 80 1321 (93) |
| | | | | | -0.4(3) | | ME | 1983Pf02 | PR B27 4018 (83) |
| 32 Ge 74 | 596 | 12.5 ps | 2+ | +0.70(2) | | | TF | 2013Gu23 | PR C88 014301 (2013) |
| | | | | +0.87(4) | | | TF | 1984Pa20 | JP G10 1759 (84) |
| | | | | +0.70(5) | | | TF | 1987La20 | AuJP 40 117 (87) |
| | | | | +0.7(2) | | | IMPAC, R | 1977Fa07 | NP A291 241 (77) |
| | | | | | -0.19(2) | R | CER | 2000TO12 | Eur. Phys. J. A9 353 (00) |
| | | | | | -0.25(6) | | CER | 1980Le16 | PR C22 1530 (80) |
| | 1204 | 4.9 ps | 2+ | +0.9(2) | | | TF | 2013Gu23 | PR C88 014301 (2013) |
| | | | | +0.8(2) | | | TF | 1984Pa20 | JP G10 1759 (84) |
| | | | | | 0.26(6) | R | CER | 2000TO12 | Eur. Phys. J. A9 353 (00) |
| | 1464 | 1.53 ps | 4+ | +1.6(5) | | | TF | 2013Gu23 | PR C88 014301 (2013) |
| 32 Ge 75 | 0 | 82.8 m | 1/2- | +0.510(5) | | [73Ge] | AB | 1970O102 | PR C2 228 (70) |
| 32 Ge 76 | 563 | 18.6 ps | 2+ | +0.64(2) | | | TF | 2013Gu23 | PR C88 014301 (2013) |
| | | | | +0.84(5) | | | TF | 1984Pa20 | JP G10 1759 (84) |
| | | | | +0.67(8) | | | TF | 1987La20 | AuJP 40 117 (87) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|-------------|--------|---------------|------------|---|-------------|-------------------|-----------------------------------|-----------------------------------|
| | | | | +0.56(12) | | | | IMPAC, R | 1977Fa07 | NP A291 241 (77) |
| | | | | | -0.19(6) | R | | CER | 1980Le16 | PR C22 1530 (80) |
| | 1108 | 8.0 ps | 2+ | +0.78(10) | | | | TF | 2013Gu23 | PR C88 014301 (2013) |
| | 1410 | 1.8 ps | 4+ | +1.0(7) | | | | TF | 2013Gu23 | PR C88 014301 (2013) |
| 33 As 68 | 2159 | 37 ns | (7,8)- | g =0.23(2) | | | | TDPAD | 1986RaZU | BAPS 31 1210 (86) |
| 33 As 69 | 0 | 15.2 m | 5/2- | +1.623(2) | | | | NMR/ON | 2005GO44 | PR C72 064316 (05) |
| | | | | 1.2(2) | | | [75As] | AB | 1980Ho02 | ZP A294 1 (80) |
| | 1307 | 1.35 ns | 9/2+ | +4.7(6) | | | | IPAD | 1980Be32 | ZP A296 181 (80) |
| | | | | +6(2) | | | | RIGV | 1981Ki07 | IzF 45 94 (81) |
| 33 As 70 | 0 | 53 m | 4+ | +2.1061(2) | | | [75As] | AB | 1980Ho02 | ZP A294 1 (80) |
| | | | | | +0.09(2) | R | [75As] | AB | 1980Ho02 | ZP A294 1 (80) |
| | 888 | 5.34 ns | 7- | 0.75(5) | | | | IPAD | 1991Ba43 | NP A535 425 (91) |
| 33 As 71 | 0 | 65.3 h | 5/2- | (+)1.674(2) | | | | NMR/ON | 1976He25/1976He06 | HFI 2 294 (76)/NP A259 378 (76) |
| | | | | positive sign | | | | β^+ NO | 2005SE14 | PR C71 064310 (05) |
| | | | | 1.64(4) | | | | AB | 1980Ho02 | ZP A 294 1 (80) |
| | | | | | -0.021(6)) | R | [72As] | NO/S | 1988Wh03 | HFI 43 205 (88) |
| | 1001 | 19.8 ns | 9/2+ | +5.15(9) | | | | TDPAD | 1989Ra17 | ARHMI 58 (71) |
| 33 As 72 | 0 | 26 h | 2- | -2.1566(3) | | | [75As] | AB | 1980Ho02 | ZP A294 1 (80) |
| | | | | | -0.08(2) | R | [75As] | AB | 1980Ho02 | ZP A294 1 (80) |
| | 214 | 85 ns | 3+ | +1.58(2) | | | [19F 197] | TDPAD | 1975Be32 | NP A249 93 (75) |
| | 561 | 87 ns | (6-) | -0.696(12) | | | | TDPAD | 1977Ra03 | PR C15 1583 (77) |
| 33 As 73 | 66 | 5.0 ns | 5/2- | +1.63(10) | | | | TDPAC | 1963Bo26 | PL 6 290 (63) |
| | | | | | 0.356(12) | R | [75As] | TDPAC | 1992Sc21 | ZP A343 279 (92) |
| | 428 | 5.6 μ s | 9/2+ | +5.234(14) | | | | SOP/RDAD | 1970Be23 | PRL 25 102 (70) |
| 33 As 74 | 0 | 17.8 d | 2- | -1.597(3) | | | [75As] | NMR/ON | 1972Ka35 | NP A193 410 (72) |
| | 259 | 26.8 ns | (4)+ | +3.24(4) | | | [19F 197] | TDPAD, R | 1970Ch10/1976Ga23 | NP A164 367 (71)/PR C14 1776 (76) |
| 33 As 75 | 0 | stable | 3/2- | +1.43948(7) | | | [2H] | N | 1953Ti01/1952Je05 | PR 89 595 (53)/PR 85 478 (53) |
| | | | | | 0.314(6) | R | | Mu-X | 1982Ef01 | ZP A309 77 (82) |
| | | | | | +0.30(5) | | | O | 1983Vo15 | Phca 123C 121 (83) |
| | 265 | 11.9 ps | 3/2- | +1.0(2) | | | | IPAC | 1971BeWK/1970Pi18 | Cf70Delft 543 (70)/Pram 1 70 (73) |
| | 280 | 273 ps | 5/2- | +0.92(2) | | | | TDPAC | 1989Mo14 | NP A500 277 (89) |
| | | | | +0.81(8) | | | | IPAC | 1971BeWK/1970Pi18 | Cf70Delft 543 (70)/Pram 1 70 (73) |
| 33 As 76 | 0 | 26.3 h | 2- | (-)0.9028(10) | | | [75As] | NMR/ON(β) | 1999Oh01 | PR C59 669 (99) |
| | | | | -0.906(5) | | | [75As] | NO/D | 1958Pi43 | PR 109 1423 (58) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|--------------|------|---------------------------------|-------------------------|----------------|----------------------------|--|---|
| | 46 | 1.80 μ s | (1)+ | +0.559(5) | 7(8) | [19F 197] | AB SOP/RDAD | 1961Ch10 1971BeWJ | PR 122 1302 (61) Cf70Delft 564 (70) |
| 33 As 77 | 0 | 38.8 h | 3/2- | +1.2946(13) | | [75As] | NMR/ON(β) | 1999Oh01 | PR C59 669 (99) |
| | 264 | 304 ps | 5/2- | +0.74(2) +0.83(7) | | | TDPAC IPAC | 1989Mo14 1973Ch42 | NP A500 277 (89) NP A217 177 (73) |
| | 476 | 116 μ s | 9/2+ | +5.525(9) | | | SOP/RDAD | 1989Ra17 | ARHMI 53 (69) |
| | 632 | 60 ps | 5/2+ | +2.5(4) | | | IPAC | 1974Ch31 | PR C10 774 (74) |
| 34 Se 70 | 945 | 1.5 ps | 2+ | | prolate shape | | CER | 2007HU03 | PRL 98 072501 (07) |
| 34 Se 73 | 0 | 7.1 h | 9/2+ | 0.892(13) 0.87(5) 0.85(7) | | | NMR/ON NMR/ON NMR/ON | 2001St31 1988Be39 1987Ni13 | HFI 133 117 (2001) PR C38 2329 (88) JPJa 56 3512 (87) |
| 34 Se 74 | 635 | 7.08 ps | 2+ | +0.86(5) | | [82Se 654] | TF | 1998SP03 | PR C57 2181 (98) |
| | | | | | -0.36(7) | R | CER | 1978Le22 | PR C18 2801 (78) |
| | 1269 | 4.0 ps | 2+ | 1.1(2) | | [82Se 654] | TF | 1998SP03 | PR C57 2181 (98) |
| | 1363 | 1.86 ps | 4+ | 2.0(4) | | [82Se 654] | TF | 1998SP03 | PR C57 2181 (98) |
| 34 Se 75 | 0 | 118.5 d | 5/2+ | 0.683(10) 0.67(4) | | | NMR/ON NMR/ON | 2001ST31 1974Ca23 | Hyp Int 133 117 (2001) PR B10 1075 (74) |
| | | | | | 1.1(2) | R | MA, R | 1955Aa06 | PR 98 1224 (55) |
| | | | | | Q/Q(79Se(gs))=1.2578(6) | | MA, R | 1955Aa06 | PR 98 1224 (55) |
| 34 Se 76 | 559 | 12.3 ps | 2+ | +0.80(5) +0.8(2) +0.8(2) | | [82Se 654] | TF IMPAC IPAC | 1998Sp03 1969He11 1967Mu10 | PR C57 2181 (98) NP A133 310 (69) CJP 45 1821 (67) |
| | | | | | -0.34(7) | R | CER | 1977Le11 | NP A284 123 (77) |
| | | | | | -0.30(5) | | CER | 1976VoZX | BAPS 21 581 (76) |
| | 1216 | 3.4 ps | 2+ | 0.70(12) | | [82Se 654] | TF | 1998Sp03 | PR C57 2181 (98) |
| | 1332 | 1.52 ps | 4+ | 2.6(4) | | [82Se 654] | TF | 1998Sp03 | PR C57 2181 (98) |
| 34 Se 77 | 0 | stable | 1/2- | +0.5350422(6) 0.5350743(3) | | [23Na] [1H] | N N | 1978Ko39/1953We51 1978Ko39 | ZNat 33a 1025 (78)/ PR 89 923 (53) ZNat 33a 1025 (78) |
| | 250 | 9.56 ns | 5/2- | +1.12(3) | | | TDPAC | 1984Za08 | JP G10 1571 (84) |
| | | | | | +0.76(5) | | TDPAC | 2008Py02/1983Un02 | Mol Phys 106 1965 (2009)/HFI 14 119 (83) |
| | 439 | 24 ps | 5/2- | +1.0(3) | | | IMPAC | 1970RoZS | Cf69Heid 419 (69) |
| 34 Se 78 | 614 | 8.6 ps | 2+ | +0.77(5) +0.8(2) | | [82Se 654] | TF IMPAC | 1998Sp03 1969He11 | PR C57 2181 (98) NP A133 310 (69) |
| | | | | | -0.26(9) | R | CER | 1977Le11 | NP A284 123 (77) |
| | | | | | -0.30(11) | | CER | 1976VoZX | BAPS 21 581 (76) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|------------------------|------|------------|-----------|-------------|---------------|-----------------------------------|------------------------------------|
| | 1308 | 4.2 ps | 2+ | 0.7(2) | | [82Se 654] | TF | 1998Sp03 | PR C57 2181 (98) |
| | 1503 | 1.05 ps | 4+ | 1.6(5) | | [82Se 654] | TF | 1998Sp03 | PR C57 2181 (98) |
| 34 Se 79 | 0 | <6.5x10 ⁴ y | 7/2+ | -1.018(15) | | | MA | 1953Ha50 | PR 92 1532 (53) |
| | | | | | +0.8(2) | R | MA, R | 1989Ra17 | OSpk 12 163 (62) |
| 34 Se 80 | 666 | 8.0 ps | 2+ | +0.87(5) | | [82Se 654] | TF | 1998Sp03 | PR C57 2181 (98) |
| | | | | +0.8(3) | | | IMPAC | 1969He11 | NP A133 310 (69) |
| | | | | | -0.31(7) | R | CER | 1977Le11 | NP A284 123 (77) |
| | | | | | -0.35(12) | | CER | 1976VoZX | BAPS 21 581 (76) |
| | 1449 | 1.95 ps | 2+ | 0.7(2) | | [82Se 654] | TF | 1998Sp03 | PR C57 2181 (98) |
| | 1701 | 0.66 ps | 4+ | 2.7(10) | | [82Se 654] | TF | 1998Sp03 | PR C57 2181 (98) |
| 34 Se 82 | 654 | 11.3 ps | 2+ | +0.99(6) | | | TF | 1978Br38 | HFI 4 268 (78) |
| | | | | +0.9(3) | | | IMPAC | 1969He11 | NP A133 310 (69) |
| | | | | | -0.22(7) | R | CER | 1977Le11 | NP A284 123 (77) |
| | 1735 | 0.96 ps | 4+ | 2.3(15) | | [82Se 654] | TF | 1998Sp03 | PR C57 2181 (98) |
| 35 Br 72 | 0 | 79 s | (3+) | 0.60(10) | | | NO/S | 1992Ba68 | HFI 75 433 (92) |
| | 101 | 10.1 s | (1-) | >0.7 | | | NO/S | 1992Gr20 | PR C46 2228 (92) |
| 35 Br 73 | 241 | 34.7 ns | 3/2- | 1.97(13) | | | TDPAD | 1987He27 | PR C36 2409 (87) |
| 35 Br 74 | 14 | 46 m | 4(+) | 1.68(18) | | | NO/S | 1992Gr20 | PR C46 2228 (92) |
| | | | | 1.820(12) | | | NMR/ON | 1992Pr06 | HFI 75 275 (92) |
| 35 Br 75 | 0 | 97 m | 3/2- | 0.76(18) | | | NO/S | 1992Gr20 | PR C46 2228 (92) |
| | | | | positive | | | NO/ β S | 1992Ba68 | HFI 75 433 (92) |
| 35 Br 76 | 0 | 16.1 h | 1- | 0.54821(2) | | [79,81Br] | AB | 1960Li11 | PR 119 1053 (60) |
| | | | | | 0.255 (4) | [79Br] | AB, R | 1960Li11/2000Ha64 | PR 119 1053 (60)/PR B61 13588 (00) |
| | | | | | | | | 1966Br03 | PR 142 53 (66) |
| 35 Br 77 | 0 | 57 h | 3/2- | 0.92(5) | | | NO/S | 1992Gr20 | PR C46 2228 (92) |
| | | | | 0.9731(6) | | | NMR/ON | 1993Oh09 | HFI 78 485 (93) |
| | | | | 0.9738(5) | | | NMR/ON | 1992Pr06 | HFI 75 275 (92) |
| | | | | | +0.51(2) | R | | 2013StZZ/1998Se09 | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.53(2) | [82Br] | MAPON | 1998Se09 | PRL 80 5289 (98) |
| | 130 | 9.3 ns | 5/2+ | +3.30(3) | | | TDPAC | 1991Gr15 | ZP A340 349 (91) |
| 35 Br 78 | 0 | 6.46 m | 1+ | 0.13(3) | | | NO/S | 1992Pr06 | HFI 75 275 (92) |
| | 32 | 14.2 ns | (2)- | -1.12(4) | | [19F 197] | TDPAD | 1973PI07 | NP A215 471 (73) |
| | 181 | 119 μ s | 4(+) | +4.114(12) | | | NMR/AC | 1974FoYO/1971Br31 | Cf74Upp 258 (74)/ZP 244 375 (71) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | |
|---------------|---------|------------|--------|--------------|---------------|-------------|------------|--------------------------|-----------------------------------|---|------------------------------------|
| 35 Br 79 | 0 | stable | 3/2- | +2.106400(4) | | [2H] | N | 1972Bi07 | ZNat 27a 72 (72) | | |
| | | | | | +0.313(3) | R | [calc efg] | R | 2008Py02/2001Bi17 | Mol Phys 106 1965 (2008)/PR A64 052507 (01) | |
| | | | | | 0.318(5) | | | R | 2004Ai08 | PR B69 12501 (2004)/PR B70 119901 (2004) | |
| | | | | | +0.305(5) st | | | AB, R | 2000Ha64 | HPAc 51 755 (79)/PR B61 13588 (00) | |
| | | | | | +0.331(4) st | | | AB, R | 1998Se09 | PRL 80 5289 (98) | |
| | 217 | 47 ps | 5/2- | 1.0(3) | | | | TF | 1994Sp05 | NP A578 300 (94) | |
| | 523 | 1.91 ps | 5/2- | 2.8(8) | | | | TF | 1994Sp05 | NP A578 300 (94) | |
| 761 | 1.50 ps | 7/2- | 1.9(3) | | | | TF | 1994Sp05 | NP A578 300 (94) | | |
| 35 Br 80 | 0 | 17.6 m | 1+ | 0.5140(6) | | [79,81Br] | AB | 1964Wh05 | PR 136 B584 (64) | | |
| | | | | | +0.185(3) | R | [79Br] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | |
| | | | | | +0.181(4) st | | | AB, R | 2000Ha64 | HPAc 51 755 (79)/PR B61 13588 (00) | |
| | | | | | +0.196(3) st | | | AB, R | 1998Se09 | PRL 80 5289 (98) | |
| | | | | | 0.199(8) | | | AB | 1964Wh05 | PR 136 B584 (64) | |
| | 37 | 7.4 ns | 2- | | -1.67(12) | | [19F 197] | TDPAD | 1973PI07 | NP A215 471 (73) | |
| | | | | | | 0.164(6) | R | [79Br] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | | 0.159(7) st | | [80Br] | TDPAC | 2000Ha64 | HPAc 51 755 (79)/PR B61 13588 (00) |
| | | | | | 0.173(6) st | | | TDPAC | 1978Ta24 | HPAc 51 755 (79) | |
| | 86 | 4.42 h | 5- | | +1.3177(6) | | [79,81Br] | AB | 1964Wh05 | PR 136 B584 (64) | |
| +0.710(10) | | | | | | R | [79Br] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | |
| +0.69(2) st | | | | | | | | AB, R | 2000Ha64 | HPAc 51 755 (79)/PR B61 13588 (00) | |
| +0.751(10) st | | | | | | | | AB, R | 1998Se09 | PRL 80 5289 (98) | |
| 35 Br 81 | 0 | stable | 3/2- | +2.270562(4) | | [2H] | N | 1972Bi07 | ZNat 27a 72 (72) | | |
| | | | | | +0.262(3) | R | [calc efg] | R | 2008Py02/2001Bi17 | Mol Phys 106 1965 (2008)/PR A64 052507 (01) | |
| | | | | | 0.266(4) | | | R | 2004Ai08 | PR B69 12501 (2004)/PR B70 119901 (2004) | |
| | | | | | +0.254(6) st | | | AB, R | 2000Ha64 | HPAc 51 755 (79)/PR B61 13588 (00) | |
| | | | | | +0.276(4) st | | | AB, R | 1998Se09 | PRL 80 5292 (98) | |
| | 276 | 9.7 ps | 5/2- | 1.6(5) | | | | TF | 1996Ja09 | NP A601 117 (96) | |
| | 536 | 37 μ s | 9/2+ | 5.70(5) | | | | SOP/RDAD | 1972CH34/1972Ch34 | RRou 17 751 (72)/PL 35B 501 (71) | |
| 767 | 0.54 ps | 5/2- | 1.0(4) | | | | TF | 1996Ja09 | NP A601 117 (96) | | |
| 837 | 1.0 ps | 7/2- | 1.4(4) | | | | TF | 1996Ja09 | NP A601 117 (96) | | |
| 35 Br 82 | 0 | 35.3 h | 5- | +1.6270(5) | | [79,81Br] | AB | 1959Ga12 | PR 116 393 (59) | | |
| | | | | | +0.707(10) | R | [79Br] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | |
| | | | | | +0.69(2) st | | | AB, R | 2000Ha64 | HPAc 51 755 (79)/PR B61 13588 (00) | |
| | | | | | +0.748(10) st | | | AB, R | 1998Se09 | PRL 80 5289 (98) | |
| 35 Br 84 | 0 | 31.8 m | 2- | 1.9(7) | | | NO/S | 1992Pr06 | HFI 75 275 (92) | | |
| 36 Kr 75 | 0 | 4.3 m | 5/2+ | -0.531(4) d | | [83Kr] | CFBLS | 1995Ke04 | NP A586 219 (95) | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|-------------------------|------|--------------|------------|-------------|---------|-----------------------------------|-------------------------------------|
| | | | | | +1.137(13) | | CFBLS/R | 1995Ke04 | NP A586 219 (95) |
| 36 Kr 76 | 424 | 17 ps | 2+ | +0.7(2) | | | TF | 2004KU11 | PL B591 213 (04) |
| 36 Kr 77 | 0 | 74.4 m | 5/2+ | -0.583(3) d | | [83Kr] | CFBLS | 1995Ke04 | NP A586 219 (95) |
| | | | | | +0.948(10) | R | CFBLS/R | 1995Ke04 | NP A586 219 (95) |
| 36 Kr 78 | 455 | 17 ps | 2+ | +0.86(2) | | | TF | 2004KU11 | PL B591 213 (04) |
| | | | | +1.08(10) | | | TF | 1981Wa16 | NP A365 173 (81) |
| | 1119 | 2.6 ps | 4+ | +1.8(3) | | | TF | 2001Me20 | PR C64 024314 (01) |
| | 1148 | 3.7 ps | 2+ | +1.1(2) | | | TF | 2001Me20 | PR C64 024314 (01) |
| 36 Kr 79 | 0 | 35.04 h | 1/2- | +0.536(2) d | | [83Kr] | CFBLS | 1995Ke04 | NP A586 219 (95) |
| | 130 | 50 s | 7/2+ | -0.786(2) d | | [83Kr] | CFBLS | 1995Ke04 | NP A586 219 (95) |
| | | | | | +0.404(5) | R | CFBLS/R | 1995Ke04 | NP A586 219 (95) |
| | 147 | 77.7 ns | 5/2- | +1.124(10) | | [19F 197] | TDPAD | 1968BI04 | PL 26B 134 (68) |
| | | | | | 0.45(3) | R | TDPAD | 1989Ra17 | ARHMI 50 (77) |
| 36 Kr 80 | 617 | 8.1 ps | 2+ | +0.76(10) | | | TF | 2001Me20 | PR C64 024314 (01) |
| | 1257 | 1.4 ps | 4+ | +1.8(6) | | | TF | 2001Me20 | PR C64 024314 (01) |
| | 1436 | 7.6 ps | 2+ | +1.3(7) | | | TF | 2001Me20 | PR C64 024314 (01) |
| 36 Kr 81 | 0 | 2.3 x 10 ⁵ y | 7/2+ | -0.908(2) d | | [83Kr] | CFBLS | 1995Ke04 | NP A586 219 (95) |
| | | | | -0.909(4) | | [83Kr] | LRFS | 1993Ca41 | PR A47 1148 (93) |
| | | | | | +0.644(4) | R | R | 2001Ke15/1993Ca41 | CPL 346 155 (01)/PR A47 1148 (1993) |
| | | | | | +0.64(7) | | CFBLS | 1995Ke04 | NP A586 219 (95) |
| | | | | | +0.629(13) | | LRFS | 1993Ca41 | PR A47 1148 (93) |
| | 190 | 13.1 s | 1/2- | +0.586(2) d | | [83Kr] | CFBLS | 1995Ke04 | NP A586 219 (95) |
| 36 Kr 82 | 777 | 4.5 ps | 2+ | +0.80(4) | | | TF | 2001Me20 | PR C64 024314 (01) |
| | 1821 | 0.7 ps | 4+ | +1.2(8) | | | TF | 2001Me20 | PR C64 024314 (01) |
| 36 Kr 83 | 0 | stable | 9/2+ | -0.970669(3) | | [39K] | N, AB | 1968Br16/1946Ke05 | PL 27A 466 (68)/RMP 18 323 (46) |
| | | | | | +0.259(1) | R | R | 2001Ke15 | CPL 346 155 (01) |
| | | | | | +0.26(3) | | CFBLS | 1995Ke04 | NP A586 219 (95) |
| | | | | | +0.253(5) | | AB | 1963Fa01 | PR 129 1214 (63) |
| | 9 | 147 ns | 7/2+ | -0.943(2) | | [83Kr] | ME | 1969Ca06 | PR 178 1728 (69) |
| | | | | | +0.507(3) | R | R | 2001Ke15 | CPL 346 155 (01) |
| | | | | | +0.495(10) | [83Kr] | ME | 1977Ho** | JCP 66 2627 (77) |
| | 42 | 1.83 h | 1/2- | +0.591(2) d | | [83Kr] | CFBLS | 1995Ke04 | NP A586 219 (95) |
| 36 Kr 84 | 882 | 4.1 ps | 2+ | +0.54(2) | | | TF | 2001Me20 | PR C64 024314 (01) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|--------------|------|----------------|-----------|---|-------------|---------|-----------------------------------|------------------------------------|
| | 3236 | 1.84 μ s | 8+ | -1.97(2) | | | | TDPAD | 1982Za04 | R.Rou 27 33 (82) |
| | | | | | 0.36(4) | R | | LEMS | 2006SC22 | PR C74 034309 (06) |
| | 5373 | 45 ns | 12+ | +2.04(12) | | | | TDPAD | 1985Ro22 | PL 163B 323 (85) |
| | | | | +2.0(2) | | | | TDPAD | 1990RO10 | NP A514 401 (90) |
| 36 Kr 85 | 0 | 10.76 y | 9/2+ | -1.005(2) d | | | [83Kr] | CFBLS | 1995Ke04 | NP A586 219 (95) |
| | | | | 1.005(2) | | | [83Kr] | O | 1955Ra131981Th04 | ZP 141 160 (55) |
| | | | | -1.0055(4) | | | [83Kr] | LRFS | 1993Ca41 | PR A47 1148 (93) |
| | | | | | +0.443(3) | R | | [83Kr] | 2001Ke15 | CPL 346 155 (01) |
| | | | | | +0.440(5) | | | CFBLS/R | 1995Ke04 | NP A586 219 (95) |
| | | | | | +0.433(8) | | | LRFS | 1993Ca41 | PR A47 1148 (93) |
| | 305 | 4.48 h | 1/2- | +0.633(2) d | | | [83Kr] | CFBLS | 1995Ke04 | NP A586 219 (95) |
| 36 Kr 86 | 1565 | 0.26 ps | 2+ | +2.2(3) | | | | TF | 2001Me20 | PR C64 024314 (01) |
| 36 Kr 87 | 0 | 76.3 m | 5/2+ | -1.023(2) d | | | [83Kr] | CFBLS | 1995Ke04 | NP A586 219 (95) |
| | | | | | -0.300(3) | R | | CFBLS/R | 1995Ke04 | NP A586 219 (95) |
| 36 Kr 89 | 0 | 3.15 m | 3/2+ | -0.330(3) d | | | [83Kr] | CFBLS | 1995Ke04 | NP A586 219 (95) |
| | | | | | +0.166(2) | R | | CFBLS/R | 1995Ke04 | NP A586 219 (95) |
| 36 Kr 91 | 0 | 8.57 s | 5/2+ | -0.583(2) d | | | [83Kr] | CFBLS | 1995Ke04 | NP A586 219 (95) |
| | | | | | +0.303(3) | R | | CFBLS/R | 1995Ke04 | NP A586 219 (95) |
| 36 Kr 93 | 0 | 1.286 s | 1/2+ | -0.413(2) d | | | [83Kr] | CFBLS | 1995Ke04 | NP A586 219 (95) |
| 36 Kr 94 | 666 | 8.7 ps | 2+ | | -0.5(3) | R | | CER | 2012Al03 | PRL 108 062701 (2012) |
| 36 Kr 95 | 0 | 0.78 s | 1/2+ | -0.410(3) d | | | [83Kr] | CFBLS | 1995Ke04 | NP A586 219 (95) |
| 36 Kr 96 | 554 | 12.4 ps | 2+ | | 0.3(9) | | | CER | 2012Al03 | PRL 108 062701 (2012) |
| 37 Rb 76 | 0 | 39 s | 1(-) | -0.3726228(14) | | | [87Rb] | ABLS | 1986Du16/1981Th04 | JPPa 47 1903 (86)/PR C23 2720 (81) |
| | | | | | +0.46(20) | R | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) |
| 37 Rb 77 | 0 | 3.8 m | 3/2- | +0.6544680(16) | | | [87Rb] | ABLS | 1986Du16/1981Th04 | JPPa 47 1903 (86)/PR C23 2720 (81) |
| | | | | +0.652(7) | | | [85Rb] | AB | 1978Ek04 | NP A311 269 (78) |
| | | | | | +0.84(17) | R | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) |
| 37 Rb 78 | 103 | 6.3 m | 4- | +2.549(2) | | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | +2.56(3) | | | [85Rb] | AB | 1978Ek04 | NP A311 269 (78) |
| | | | | | +0.99(20) | R | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | | | |
|----------|--------|--------------|--------------|----------------|-----------|--------------------------|------------------|---------------|--------------------------|--------------------------|-----------------------------------|------------------------------------|------------------------------------|
| 37 Rb 79 | 0 | 23 m | 5/2+ | +3.3579(12) | | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) | | | |
| | | | | +3.36(4) | | | [85Rb] | AB | 1978Ek04 | NP A311 269 (78) | | | |
| | 97 | 18.6 ns | 9/2+ | +5.03(7) | -0.12(4) | R | | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) | | |
| | | | | | | | | TDPAD | 1994Io02 | ZP A349 129 (94) | | | |
| 37 Rb 80 | 0 | 30 s | 1+ | -0.0836(6) | | | | | | OP/RD,R | 1978Ek04 | NP A311 269(78) | |
| | | | | -0.083(2) | | | | | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | 494 | 1.63 μ s | 6+ | 6+ | +3.38(2) | +0.42(8) | R | | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) | |
| | | | | | +3.36(6) | | | | TDPAD | 1996Io01 | ZP A355 347 (96) | | |
| | | | | | TDPAD | 1979RaZR | BAPS 24 632 (79) | | | | | | |
| | | | | | TDPAD | | Th Stenzel (86) | | | | | | |
| 37 Rb 81 | 0 | 4.58 h | 3/2- | +2.0595(14) | | | | | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | | | | | | | +0.48(10) | [85Rb] | ABLS/R | 1981Th04 |
| | 86 | 32 m | 9/2+ | +5.598(2) | -0.90(19) | R | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) | | |
| | | | | | | | | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) | | |
| 37 Rb 82 | 0 | 1.25 m | 1+ | +0.5545083(11) | | | | | | [87Rb] | ABLS | 1986Du16/1981Th04 | JPPa 47 1903 (86)/PR C23 2720 (81) |
| | | | | +0.554(6) | | | | | | OP/RD,R | 1978Ek04 | NP A311 269 (78) | |
| | ~100 | 6.47 h | 5- | +1.5100082(2) | | R | | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) | | |
| | | | | | | | | +1.513(2) | [87Rb] | AB | 1976Fu06/1957Hu75 | JPCR 5 835 (76)/PR 107 723 (57) | |
| | | | | +1.51(2) | | | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) | | |
| | | | | | | | | [85Rb] | AB,R | 1978Ek04 | NP A311 269 (78) | | |
| | | | | | | R | | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) | | |
| | | | | | | | | TDPAD | 1996Io01 | ZP A355 347 (96) | | | |
| | 191 | 12.3 ns | 6+ | +4.02(5) | | | | | | | | | |
| | 3027 | 0.6 ps | 12- | (+)13(3) | | | | | | | TF | 2010YU03 | Chin Phys B19 062701 (10) |
| | 3500 | 0.6 ps | 13- | (+)13(3) | | | | | | | TF | 2010YU03 | Chin Phys B19 062701 (10) |
| | 4048 | 0.4 ps | 14- | (+)12(3) | | | | | | | TF | 2010YU03 | Chin Phys B19 062701 (10) |
| 4716 | <1 ps | 15- | (+)12(3) | | | | | | | TF | 2010YU03 | Chin Phys B19 062701 (10) | |
| 37 Rb 83 | 0 | 86.2 d | 5/2- | +1.4249(8) | | | | | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | | | | | | | +0.24(5) | [85Rb] | ABLS/R | 1981Th04 |
| 37 Rb 84 | 0 | 33 d | 2- | -1.324116(2) | | | | | | [87Rb] | AB | 1962Kh02 | BAPS 7 476 (62) |
| | | | | -1.325(2) | | | | | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | -1.30(1) | | | | [85Rb] | OD,OL | 1973Ac02 | ZP 260 87 (73) | | |
| | | | | | | | | -0.02(4) | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) | |
| | | | | | | R | | [85Rb] | OD,OL | 1973Ac02 | ZP 260 87 (73) | | |
| | | | | | | | | +0.005(13) | [87Rb] | ABLS | 1986Du16/1981Th04 | JPPa 47 1903 (86)/PR C23 2720 (81) | |
| 465 | 20.4 m | 6- | +0.212933(1) | | | | | | | ABLS | 1981Th04 | PR C23 2720 (81) | |
| 37 Rb 85 | 0 | stable | 5/2- | +1.35298(10) | | | | | | ABLS | 1993Du08 | NIMPR A325 465 (93) | |
| | | | | +1.3533515(8) | | | | | | [1H] | N | 1976Fu06/1954Wa37 | JPCR 5 835 (76)/ORNL-1775 (54) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|-----------------|-------|--------------|--------------|-------------|--------------|-----------------------------------|------------------------------------|
| | | | | +1.353028(3) | | | AB/D | 1968Eh01 | PR 167 1062 (68) |
| | | | | +1.35302(2) | | | OP/RD | 1968Wh01 | PR 174 23 (68) |
| | | | | +1.357(1) | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | | +0.276(1) | R | MS | 2008Py02 | Mol Phys 106 1965 (2008) |
| | | | | | +0.277(1) | | R | 99Ke12 | PR A60 3575 (99) |
| | | | | | +0.286(1) | | R | 99Ke12 | PR A60 3575 (99) |
| | | | | | +0.23(4) st | | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | | +0.274(2) st | | OD | 1973Fe05 | ZP 261 1 (73) |
| | | | | | +0.273(2) st | | MB, R | 1971St12 | PR A3 837 (71) |
| | 514 | 1.02 μ s | 9/2+ | +6.043(5) | | [87Rb] | OP/RD | 1991Ma21 | PRL 66 1681 (91) |
| | | | | +6.046(10) | | [85Rb] | OP/RD | 1984Sh24 | PRL 53 2230 (84) |
| | | | | +6.16(5) | | | TDPAD, SOPAD | 1974He22 | NP A234 81 (70) |
| | | | | | -0.9(2) | R | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.7(2) | | OP/RD | 1991Ma21 | PRL 66 1681 (91) |
| | 2826 | 12.5 ns | 19/2- | +1.3(4) | | | TDPAD | 1990Ka26 | HFI 59 101 (90) |
| 37 Rb 86 | 0 | 18.65 d | 2- | -1.6920(14) | | | AB/D | 1961Br16 | PR 123 1801 (61) |
| | | | | -1.698(2) | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | | +0.23(6) | R | ABLS/R | 1981Th04 | PR C23 2720 (81) |
| | | | | | +0.20(3) | | OD,OL | 1973Ac02 | ZP 260 87 (73) |
| | 556 | 1.02 m | (6-) | +1.815(1) | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | | +0.45(14) | R | ABLS/R | 1981Th04 | PR C23 2720 (81) |
| 37 Rb 87 | 0 | 4.9 10^{10} y | 3/2- | +2.75131(12) | | | ABLS | 1993Du08 | NIMPR A325 465 (93) |
| | | | | +2.751818(2) | | [2H] | N | 1967Lu06/1968Lu07 | PL 25A 440 (67)/ZNat 23a 1202 (68) |
| | | | | +2.751235(3) | | | OP/RD | 1968Wh01 | PR 174 23 (68) |
| | | | | | +0.1335(5) | R | MS | 2008Py02 | Mol Phys 106 1965 (2008) |
| | | | | | +0.134(1) | | R | 99Ke12 | PR A60 3575 (99) |
| | | | | | +0.138(1) | | R | 99Ke12 | PR A60 3575 (99) |
| | | | | | +0.132(1) st | | OD | 1973Fe05 | ZP 261 1 (73) |
| | | | | | +0.127(1) st | | TDPAD, R | 1971St12 | PR A3 837 (71) |
| | | | | | +0.13(2) st | | ABLS | 1981Th04 | PR C23 2720 (81) |
| 37 Rb 88 | 0 | 17.7 m | 2- | 0.508(5) | | [85Rb] | AB | 1968Va03 | PR 166 1131 (68) |
| | | | | 0.50761(1) | | [87Rb] | AB,R | 1979Ek02 | PS 19 516 (79) |
| | | | | +0.512(3) | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | | -0.01(11) | R | ABLS/R | 1981Th04 | PR C23 2720 (81) |
| 37 Rb 89 | 0 | 15.2 m | 3/2- | +2.3836(7) | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | +2.378(4) | | [85Rb] | AB | 1979Ek02 | PS 19 516 (79) |
| | | | | +2.377(5) | | [87Rb] | CFBLS | 1979KI03 | PL 82B 47 (79) |
| | | | | | +0.17(3) | R | ABLS/R | 1981Th04 | PR C23 2720 (81) |
| | | | | | 0.16(3) st | | CFBLS | 1979KI03 | PL 82B 47 (79) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|---------|--------|-------------|--------------|---|-------------|--------------------------|-----------------------------------|---|
| 37 Rb 90 | 107 | 4.26 m | 3- | +1.6160(6) | | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | +1.612(5) | | | [85Rb] | AB | 1979Ek02 | PS 19 516 (79) |
| | | | | | +0.25(7) | R | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) |
| 37 Rb 91 | 0 | 58 s | 3/2(-) | +2.1815(15) | | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | +2.177(5) | | | [87Rb] | CFBLS | 1979KI03 | PL 82B 47 (79) |
| | | | | +2.177(3) | | | [85Rb] | AB | 1979Ek02 | PS 19 516 (79) |
| | | | | | +0.19(5) | R | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) |
| | | | | 0.14(3) st | | | CFBLS | 1979KI03 | PL 82B 47 (79) | |
| 37 Rb 93 | 0 | 5.85 s | 5/2- | +1.410(2) | | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | +1.400(6) | | | [85Rb] | CFBLS | 1979KI03 | PL 82B 47 (79) |
| | | | | | +0.21(6) | R | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) |
| | | | | | 0.27(6) st | | | CFBLS | 1979KI03 | PL 82B 47 (79) |
| 37 Rb 94 | 0 | 2.73 s | 3(-) | +1.498(2) | | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | | +0.20(7) | R | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) |
| 37 Rb 95 | 0 | 0.38 s | 5/2- | +1.334(3) | | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | | +0.26(9) | R | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) |
| 37 Rb 96 | 0 | 0.20 s | 2+ | +1.466(2) | | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | | +0.30(9) | R | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) |
| 37 Rb 97 | 0 | 0.17 s | 3/2- | +1.841(2) | | | [87Rb] | ABLS | 1981Th04 | PR C23 2720 (81) |
| | | | | | +0.70(15) | R | [85Rb] | ABLS/R | 1981Th04 | PR C23 2720 (81) |
| 38 Sr 77 | 0 | 9 s | 5/2+ | -0.348(4) | | | [87Sr] | CFBLS | 1992Li11 | PR C46 797 (92) |
| | | | | | +1.27(5) | R | [87Sr] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +1.40(11) st | | [87Sr] | CFBLS | 1992Li11 | PR C46 797 (92) |
| 38 Sr 79 | 0 | 2.25 m | (3/2-) | -0.474(4) | | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) |
| | | | | | +0.661(6) | R | [87Sr] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.708(6) | | calc efg | R | 2002Ma09 | JP B35 917 (02) |
| | | | | | +0.73(6) st | | | CFBLS | 1990Bu12 | PR C41 2883 (90) |
| 38 Sr 81 | 0 | 22.3 m | 1/2- | +0.543(4) | | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) |
| | | | | | +0.542(4) | | [87Sr] | ABLFS | 1987An02 | ZP A326 493 (87) |
| 38 Sr 82 | 573 | 8.9 ps | 2+ | +0.94(16) | | | | TF | 2008YU04/2010FA08 | Chin Phys Lett 25 3617 (08)/NP A834 107c (2010) |
| | 1328 | 1.0 ps | 4+ | +1.9(3) | | | | TF | 2008YU04/2010FA08 | Chin Phys Lett 25 3617 (08)/NP A834 107c (2010) |
| | 2229 | 0.37 ps | 6+ | +3.5(5) | | | | TF | 2008YU04/2010FA08 | Chin Phys Lett 25 3617 (08)/NP A834 107c (2010) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|----------|------|---------|------|----------------|-------------|-------------|----------|-----------------------------------|---|---------------------------------|
| | 2817 | 3.0 ps | 5- | +2(2) | | [84Sr 793] | TF | 1989Ku11 | JP G15 1039 (89) | |
| | 3243 | 0.24 ps | 8+ | +6.6(8) | | | TF | 2008YU04/2010FA08 | Chin Phys Lett 25 3617 (08)/NP A834 107c (2010) | |
| | 3623 | - | 8+ | +5.6(8) | | [84Sr 793] | TF | 1989Ku11 | JP G15 1039 (89) | |
| | 4424 | 0.9 ps | 10+ | +11(5) | | [84Sr 793] | TF | 1989Ku11 | JP G15 1039 (89) | |
| 38 Sr 83 | 0 | 32.4 h | 7/2+ | -0.829(2) | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) | |
| | | | | -0.8298(3) | | [87Sr] | ABLFS | 1987An02 | ZP A326 493 (87) | |
| | | | | | +0.708(11) | R | [87Sr] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.761(12) | | calc efg | R | 2002Ma09 | JP B35 917 (02) |
| | | | | | +0.78(7) st | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) |
| | | | | | +0.82(5) st | | [87Sr] | ABLFS | 1987An02 | ZP A326 493 (87) |
| | 259 | 5.0 s | 1/2- | +0.581(4) | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) | |
| 38 Sr 84 | 793 | 2.9 ps | 2+ | +0.96(2) | | | TF | 2012Ku14 | PR C85 044322 (12) | |
| | | | | +0.84(9) | | | TF | 1988Ku01 | JP G14 65 (88) | |
| | 2769 | 9.5 ps | 5- | +8.0(10) | | [84Sr 793] | TF | 1989Ku11 | JP G15 1039 (89) | |
| | 3332 | 157 ps | 8+ | -1(2) | | [84Sr 793] | TF | 1989Ku11 | JP G15 1039 (89) | |
| | | | | -1.1(6) | | [90Se 666] | TFL | 1981Br20 | PL 105B 119 (81) | |
| | 3488 | 4.4 ps | 7- | +4.2(14) | | [84Sr 793] | TF | 1989Ku11 | JP G15 1039 (89) | |
| | 3680 | 3.3 ps | 8+ | +7.2(8) | | [84Sr 793] | TF | 1989Ku11 | JP G15 1039 (89) | |
| | 4448 | 2.2 ps | 10+ | +2.0(10) | | [84Sr 793] | TF | 1989Ku11 | JP G15 1039 (89) | |
| | 4534 | 1.66 ps | 10+ | +8(2) | | [84Sr 793] | TF | 1989Ku11 | JP G15 1039 (89) | |
| | 4636 | 2.5 ps | 9- | 0(4) | | [84Sr 793] | TF | 1989Ku11 | JP G15 1039 (89) | |
| 38 Sr 85 | 0 | 64.8 d | 9/2+ | -1.000(2) | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) | |
| | | | | -1.0005(3) | | [87Sr] | ABLFS | 1987An02 | ZP A326 493 (87) | |
| | | | | | +0.263(14) | R | [87Sr] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.282(15) | | calc efg | R | 2002Ma09 | JP B35 917 (02) |
| | | | | | +0.29(3) st | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) |
| | 239 | 68 m | 1/2- | +0.600(4) | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) | |
| | | | | +0.599(2) | | [87Sr] | ABLFS | 1987An02 | ZP A326 493 (87) | |
| 38 Sr 86 | 1077 | 1.4 ps | 2+ | +0.57(3) | | | TF | 2012Ku14 | PR C85 044322 (12) | |
| | | | | +0.55(10) | | | TF | 1988Ku01 | JP G14 65 (88) | |
| | 1854 | 0.39 ps | 2+ | +0.8(3) | | | TF | 2012Ku14 | PR C85 044322 (12) | |
| | 2230 | 1.7 ps | 4+ | -3(2) | | | TF | 2012Ku14 | PR C85 044322 (12) | |
| | 2956 | 457 ns | 8+ | -1.93(2) | | | TDPAD | 1978Ha52 | HFI 4 196 (78) | |
| 38 Sr 87 | 0 | stable | 9/2+ | -1.0928(7) | | [23Na] | OP/RD | 1972OIO1 | ZP 249 205 (72) | |
| | | | | -1.0936030(13) | | [2H] | N | 1974Sa25 | ZNat 29a 1763 (74) | |
| | | | | | +0.305(2) | R | AB | 2008Py02/2006Sa21 | Mol Phys 106 1965 (2008)/PR A73 062501 (2006) | |
| | | | | | +0.33(2) | | calc efg | R | 2002Ma09 | JP B35 917 (02) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|---------|---------|------------|-------------|---|-------------|--------|--------------------------|---------------------------------|
| | 388 | 2.80 h | 1/2- | +0.624(4) | +0.34(2) st | | [87Sr] | AB | 1977He21 | PR A16 1371 (77) |
| | | | | +0.788(9) | | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) |
| | | | | | | | | ABLFS | 1987An02 | ZP A326 493 (87) |
| 38 Sr 88 | 1836 | 0.15 ps | 2+ | +2.4(2) | | | | TF | 2012Ku14 | PR C85 044322 (12) |
| | | | | +2.3(3) | | | | TF | 1988Ku01 | JP G14 65 (88) |
| 38 Sr 89 | 0 | 50.5 d | 5/2+ | -1.147(2) | | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) |
| | | | | -1.1481(8) | | | [87Sr] | ABLFS | 1987An02 | ZP A326 493 (87) |
| | | | | | -0.253(8) | R | [87Sr] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.271(9) | | calc efg | R | 2002Ma09 | JP B35 917 (02) |
| | | | | | -0.28(3) st | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) |
| | | | | | -0.32(2) st | | [87Sr] | ABLFS | 1987An02 | ZP A326 493 (87) |
| 38 Sr 91 | 0 | 9.5 h | 5/2+ | -0.885(2) | | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) |
| | | | | | +0.042(10) | R | [87Sr] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.045(11) | | calc efg | R | 2002Ma09 | JP B35 917 (02) |
| | | | | | +0.047(12) | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) |
| | 94 | 88.9 ns | 3/2+ | -0.35(2) | | | | TDPAC | 1993Wo07 | PR C48 562 (93) |
| | | | | 0.120(3) | | | | TDPAC | 1994Ka40 | HFI 84 329 (94) |
| 38 Sr 93 | 0 | 7.4 m | 5/2+ | -0.793(2) | | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) |
| | | | | | +0.240(10) | R | [87Sr] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.258(11) | | calc efg | R | 2002Ma09 | JP B35 917 (02) |
| | | | | | +0.26(3) | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) |
| | 213 | 4.6 ns | (3/2+) | -0.34(2) | | | | TDPAC | 2004SA69 | HFI 159 251 (2004) |
| 38 Sr 95 | 0 | 10.3 m | 1/2- | -0.537(2) | | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) |
| 38 Sr 97 | 0 | 0.40 s | 1/2- | -0.498(2) | | | [87Sr] | CFBLS | 1990Bu12 | PR C41 2883 (90) |
| 38 Sr 98 | 144 | 2.8 ns | 2+ | 0.76(14) | | | | IPAC | 1989Wo05 | PR C40 932 (89) |
| 38 Sr 99 | 0 | 0.269 s | 3/2+ | -0.261(5) | | | [88,98Sr] | CFBLS | 1991Li05 | PL B256 141 (91) |
| | | | | | +0.76(4) | R | [87Sr] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.84(8) | | [88,98Sr] | CFBLS | 1991Li05 | PL B256 141 (91) |
| 39 Y 83 | 145 | 119 ps | (7/2+) | +2.1(6) | | | | IMPAD | 1990Bh03 | HFI 59 109 (90) |
| | 595 | 5.4 ps | (13/2+) | +8(3) | | | | IMPAD | 1990Bh03 | HFI 59 109 (90) |
| | | | | +4.4(7) | | | | TF | 1998LuZU | ARBT 96/7 35 (98) |
| | 1406 | 1.0 ps | (17/2+) | +8(2) | | | | TF | 1998LuZU | ARBT 96/7 35 (98) |
| | 2371 | 0.6 ps | (21/2+) | +11(2) | | | | TF | 1998LuZU | ARBT 96/7 35 (98) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|---------|------|---------|---------|---------------|------------|-------------|-------------------|-----------------------------------|---|------------------|
| | 2560 | 46 ps | (17/2-) | +2.5(5) | | | IMPAD | 1990Bh06 | PL B252 540 (90) | |
| | 3451 | | (25/2+) | +7.0(12) | | | TF | 1998LuZU | ARBT 96/7 35 (98) | |
| | 4643 | | (29/2+) | +8(2) | | | TF | 1998LuZU | ARBT 96/7 35 (98) | |
| | 5983 | | (33/2+) | +8(2) | | | TF | 1998LuZU | ARBT 96/7 35 (98) | |
| 39 Y 84 | 112 | 79 ns | (4+) | +2.31(3) | | | TDPAD | 2005IO02 | PR C72 044313 (05) | |
| | 210 | 292 ns | (4-) | +0.94(2) | | | TDPAD | 2005IO02 | PR C72 044313 (05) | |
| 39 Y 85 | 20 | 4.9 h | 9/2+ | 6.2(5) | | [87Y 381] | NO/S | 1988Be46 | HFI 43 477 (88) | |
| | 266 | 170 ns | 5/2- | +1.36(2) | | | TDPAD | 2000Io02 | PR C62 014306 (00) | |
| | | | | +1.33(8) | | | TDPAD | 1982RaZY | BAPS 27 26 (82) | |
| 39 Y 86 | 0 | 14.5 h | 4- | <0.6 | | [87Y 381] | NO/S | 1988Be46 | HFI 43 477 (88) | |
| | 208 | 70 ns | 5- | -0.415(15) | | | TDPAD | 2010Ru03 | Eur Phys J A44 31 (2011) | |
| | 218 | 46 m | 8+ | 4.8(3) | | [87Y 381] | NO/S | 1988Be46 | HFI 43 477 (88) | |
| | 243 | 28.5 ns | 2- | -1.06(6) | | | TDPAC | 1968Tr11 | Cf 67HI 145 (67) | |
| | 302 | 125 ns | 6+ | +3.78(12) | | | TDPAD/R | 2000Io02/2010Ru03 | PR C62 014306 (00)/Eur Phys J A44 31 (2010) | |
| 39 Y 87 | 0 | 79.8 h | 1/2- | -0.19(2) | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | 381 | 13.4 h | 9/2+ | +6.24(2) | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | | | | 6.06(7) | | | NMR/ON | 1991Hi04 | PRL 66 96 (91) | |
| | | | | | -0.50(6) | R | [90Y] | CLS | 2007Ch07 | PL B645 133 (07) |
| 39 Y 88 | 0 | | 4- | -0.42(1) | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | | | | | +0.16(3) | R | [90Y] | CLS | 2007Ch07 | PL B645 133 (07) |
| | 675 | 14 ms | 8+ | +4.88(3) | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | | | | +4.87(5) | | | NMR/ON | 1980KI01 | PR C21 1670 (80) | |
| | | | | | +0.06(6) | R | [90Y] | CLS | 2007Ch07 | PL B645 133 (07) |
| 39 Y 89 | 0 | stable | 1/2- | -0.1374154(3) | | [2H] | N | 1977Ha12 | ZP A280 117 (77) | |
| | | | | -0.1374208(4) | | [14N] | N | 1965Ba42/1954Br09 | PR 137 A1828 (65)/PR 93 172 (54) | |
| | 909 | 16.1 s | 9/2+ | +6.37(4) | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | | | | 6.23(7) | | | NMR/ON | 1991Hi04 | PRL 66 96 (91) | |
| | | | | positive sign | | | NMR/ON(β) | 1996Oh03 | PR C54 1129 (96) | |
| | | | | | -0.43(6) | R | [90Y] | CLS | 2007Ch07 | PL B645 133 (07) |
| 39 Y 90 | 0 | 64.1 h | 2- | -1.630(8) | | [89Y] | AB | 1962Pe01 | PR 125 284 (62) | |
| | | | | | -0.125(11) | R | calc efg | 1962Pe01/1998BI20 | PR 125 284 (62)/PR A58 4401 (98) | |
| | | | | | -0.155(3) | | AB | 1962Pe01 | PR 125 284 (62) | |
| | 203 | 250 ps | 3- | -0.85(7) | | | IPAC | 1974KI06 | NP A224 1 (74) | |
| | 682 | 3.19 h | 7+ | +5.28(3) | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | | | | 5.1(5) | | [87Y 381] | NO/S | 1988Be46 | HFI 43 477 (88) | |
| | | | | | -0.65(8) | R | [90Y] | CLS | 2007Ch07 | PL B645 133 (07) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|----------|--------|--------|----------|------------------------|-------------------------|-------|-------------|--------------------------|-----------------------------------|---|------------------|
| 39 Y 91 | 0 | 58.5 d | 1/2- | 0.1641(8) | | | [89Y] | AB | 1962Pe21 | PR 128 1740 (62) | |
| | 556 | 49.7m | 9/2+ | 5.96(4) | | | | NMR/ON | 1991Be18 | PR C44 104 (91) | |
| | | | | 5.97(7) | | | | NMR/ON | 1991Hi04 | PRL 66 96 (91) | |
| 39 Y 92 | 0 | 3.54 h | 2- | -0.67(2) | | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | | | | | 0.00(2) | R | [90Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| 39 Y 93 | 0 | 10.2 h | 1/2- | -0.12(3) | | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | | | | -0.1390(9) | | | [91Y] | β -NMR/ON | 2004NI21 | HFI 159 239 (2004) | |
| | 758 | 0.82 s | 9/2+ | +6.04(3) | | | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) |
| | | | | | -0.64(8) | R | [90Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| 39 Y 94 | 0 | 18.7 m | 2- | -0.24(2) | | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | | | | | -0.03(3) | R | [90Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| 39 Y 95 | 0 | 10.3 m | 1/2- | -0.16(3) | | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| 39 Y 96 | 1140 | 9.6 s | 8+ | +6.57(3) | | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | | | | | -0.98(11) | R | [90Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| 39 Y 97 | 0 | 3.75 s | 1/2- | -0.12(1) | | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | | | | | | | | | | | |
| | 668 | 1.17 s | 9/2+ | +5.88(2) | | | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) |
| | | | | | -0.76(8) | R | [90Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| 3522 | 142 ms | (27/2) | +5.64(3) | | | | [89Y] | CLS | 2007Bi14 | PL B645 330 (07) | |
| | | | | -1.21(14) | R | [90Y] | CLS | 2007Bi14 | PL B645 330 (07) | | |
| 39 Y 98 | 410 | 2.0 s | 4 or 5 | + 2.98(2) or + 3.11(2) | | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | | | | | +1.7(2) or + 1.8(2) | R | [90Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| 39 Y 99 | 0 | 1.47 s | 5/2+ | +3.18(2) | | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | | | | | + 1.55(17) | R | [90Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| 39 Y 100 | (143) | 0.94 s | 4 | +2.75(1) | | | [89Y] | CLS/R | 2007Ch07/2010BA31 | PL B645 133 (07)/J Phys G37 105103 (10) | |
| | | | | | +1.85(20) | R | [90Y] | CLS/R | 2007Ch07/2010BA31 | PL B645 133 (07)/J Phys G37 105103 (10) | |
| 39 Y 101 | 0 | 0.45 s | 5/2+ | +3.22(2) | | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | | | | | +1.53(17) | R | [90Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| 39 Y 102 | 0 + x | 0.3 s | 2 or 3 | +2.34(5) or + 2.68(1) | | | [89Y] | CLS | 2007Ch07 | PL B645 133 (07) | |
| | | | | | + 1.17(13) or +1.36(16) | R | [90Y] | CLS | 2007Ch07 | PL B645 133 (07) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|--------------|----------|--------------------|--------|--------|-------------|-------------------------------|----------------------------------|----------------------------------|
| 40 Zr 84 | 540 | 14.1 ps | 2+ | +0.5(7) | | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| | | | | 1.0(2) | | | | TF | 1992Mo07 | PL B279 228 (92) |
| | 1263 | 2.8 ps | 4+ | +3(3) | | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| | | | | 1.6(12) | | | | TF | 1992Mo07 | PL B279 228 (92) |
| | 2136 | 1.8 ps | 6+ | +1(3) | | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| | | | | 11(7) | | | | TF | 1992Mo07 | PL B279 228 (92) |
| | 3088 | 1.4 ps | 8+ | 12(5) | | | | TF | 1992Mo07 | PL B279 228 (92) |
| | | | | 4067 | 1.0 ps | 10+ | 5(8) | | | TF |
| | 5134 | 0.6 ps | 12+ | 11(8) | | | | TF | 1992Mo07 | PL B279 228 (92) |
| | 6300 | 0.35 ps | 14+ | 18(7) | | | | TF | 1992Mo07 | PL B279 228 (92) |
| 8+ - 14+ | | | | g(avge) = 0.87(10) | | | TF | 1992Mo07 | PL B279 228 (92) | |
| 40 Zr 85 | 2625 | - | (17/2-) | +11(4) | | | | TF | 2007YU03 | HI 180 49 (2007) |
| | 2958 | - | (19/2-) | +11(3) | | | | TF | 2007YU03 | HI 180 49 (2007) |
| | 3387 | - | (21/2-) | +9(3) | | | | TF | 2007YU03 | HI 180 49 (2007) |
| | 3838 | - | (23/2-) | +6(2) | | | | TF | 2007YU03 | HI 180 49 (2007) |
| 40 Zr 86 | - | - | 5-/7-/9- | g(avge) = +0.5(2) | | | | TF | 1995Mo02 | PR C51 513 (95) |
| | 3298 | 62 ps | 8+ | -0(3) | | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| | | | | +2(4) | | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| | | | | -0.2(7) | | | | IMPAD | 1995We03 | NP A584 133 (95) |
| | | | | -8(5) | | | | TF | 1995Mo02 | PR C51 513 (95) |
| | 3532 | <4 ps | 8+ | +15(12) | | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| | - | - | | +10(2)[avge8+/10+] | | | | TF | 95Mo02/92Mo07 | PR C51 513 (95)/PL B279 228 (92) |
| | 4326 | 2.1 ps | 10+ | -7(11) | | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| | | | | -5(10) | | | | TF | 95Mo02/92Mo07 | PR C51 513 (95)/PL B279 228 (92) |
| | 5396 | 2.6 ps | 12+ | -20(9) | | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| | | | | -4(10) | | | | TF | 95Mo02/92Mo07 | PR C51 513 (95)/PL B279 228 (92) |
| | 5524 | - | 12+ | +7(2) | | | | TF | 95Mo02/92Mo07 | PR C51 513 (95)/PL B279 228 (92) |
| | 6321 | 5.2 ps | 14+ | +30(8) | | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| +28(6) | | | | | | | CRDTF | 98Ju10 | NuoC 111 719 (98) | |
| +26(9) | | | | | | | TF | 95Mo02/92Mo07 | PR C51 513 (95)/PL B279 228 (92) | |
| 40 Zr 87 | 0 | 1.68 h | 9/2+ | -0.895(5) | | | [91Zr] | CLS | 2003TH03 | JP G29 2247 (03) |
| | | | | +0.42(5) | R | [91Zr] | CLS | 2003TH03 | JP G29 2247 (03) | |
| | 336 | 14.0 s | 1/2- | +0.642(16) | | | [91Zr] | CLS | 2003TH03 | JP G29 2247 (03) |
| 40 Zr 88 | 1057 | 2.5 ps | 2+ | +0.6(2) | | | | TF | 2012Ku14 | PR C85 044322 (12) |
| | 2140 | 1.5 ps | 4+ | +2.6(7) | | | | TF | 2012Ku14 | PR C85 044322 (12) |
| | 2889 | 1.32 μ s | 8+ | -1.81(2) | | | | TDPAD | 1978Ha52 | HFI 4 196 (78) |
| | | | | -1.60(16) | | | | TDPAD | 1978Ki06 | NP A302 159 (78) |
| | | | | +0.44(3) | R | [91Zr] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|----------|------|-------------|-------|-------------|--------------|-------------|-------------------|-----------------------------------|---------------------------------|---------------------------------|
| | | | | | +0.51(3) | [91Zr] | TDPAD | 1985Ra09 | PRL 54 2592 (85) | |
| | | | | | sign of Q | | TFLD | 1986Be06 | PR C33 1517 (86) | |
| 40 Zr 89 | 0 | 78.4 h | 9/2+ | -1.046(6) | | [91Zr] | CLS | 2002Fo12 | JP G28 L63 (02) | |
| | | | | -1.08(2) | | | NMR/ON(β) | 1996Oh03 | PR C54 1129 (96) | |
| | | | | -1.07(3) | | | NMR/ON | 1997Hi06 | NP A620 317 (97) | |
| | | | | | +0.28(10) | R | [91Zr] | CLS | 2003TH03 | JP G29 2247 (03) |
| | 588 | 4.16 m | 1/2- | +0.795(18) | | [91Zr] | CLS | 2003TH03 | JP G29 2247 (03) | |
| | 2995 | 5.2 ns | 21/2+ | +9.4(4) | | | TDPAD | 1988Ba11 | ZP A329 429 (88) | |
| 40 Zr 90 | 2186 | 0.087 ps | 2+ | +2.5(4) | | | TF | 2000Ja11 | PL B494 187 (00) | |
| | 2319 | 0.8 s | 5- | 6.25(13) | | | NMR/ON | 1987Ed02 | NP A468 348 (87) | |
| | 2748 | 140 ps | 3- | +3.0(2) | | | TF | 2000Ja11 | PL B494 187 (00) | |
| | 3589 | 134 ns | 8+ | +10.84(6) | | | TDPAD | 1977Ha49/1978Ha52 | NP A293 248 (77)/HFI 4 196 (78) | |
| | | | | | -0.44(3) | R | [91Zr] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.51(3) | [91Zr] | TDPAD | 1985Ra09 | PRL 54 2592 (85) | |
| | | | | | | | TFLD | 1986Be06 | PR C33 1517 (86) | |
| 40 Zr 91 | 0 | stable | 5/2+ | -1.30362(2) | | [2H] | N | 1957Br26 | PR 105 1929 (57) | |
| | | | | | -0.176(3) | R | [calc efg] | MS | 2000Ke03 | CPL 318 222 (00) |
| | | | | | (-)0.257(13) | | | R | 1993Yo** | PR A48 173 (93) |
| | | | | | -0.21(2) | | | AB | 1978Bu12 | Z Phys A286 125 (78) |
| | | | | | -0.23(2) a | | | R | 1998Bo35 | EurPJ D4 39 (98) |
| | 2287 | 29 ns | 15/2- | +5.25(8) | | | TDPAD | 1976Ba02 | NP A257 135 (76) | |
| | 3167 | 3.6 μ s | 21/2+ | +9.82(8) | | [90Zr 3589] | TDPAD | 1982RaZR | BAPS 27 727 (82) | |
| | | | | | 0.71(4) | R | [91Zr] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.86(5) | [91Zr] | TDPAD | 1985Ra09 | PRL 54 2592 (85) | |
| 40 Zr 92 | 934 | 4.85 ps | 2+ | -0.36(4) | | | TF | 2008WE07 | PRC C78 031301(R) (08) | |
| | | | | -0.36(2) | | | TF | 99Ja13 | PL B468 13 (99) | |
| | | | | -0.06(10) | | | TF | 1980Ha31 | PR C22 1065 (80) | |
| | 1495 | 102 ps | 4+ | -2.0(4) | | | TF | 99Ja13 | PL B468 13 (99) | |
| | 1847 | 0.096 ps | 2+ | 1.5(10) | | | TF | | | |
| 40 Zr 94 | 918 | 7.3 ps | 2+ | 0.68(4) | | | TF | 2008WE07 | PRC C78 031301(R) (08) | |
| | | | | -0.66(3) | | | TF | 99Ja13 | PL B468 13 (99) | |
| | | | | -0.52(12) | | | TF | 1980Ha31 | PR C22 1065 (80) | |
| | | | | -0.10(10) | | [110Cd 658] | IMPAC | 1978Ge19 | HFI 4 257 (78) | |
| | 1470 | 500 ps | 4+ | -3.2(16) | | | TF | 99Ja13 | PL B468 13 (99) | |
| | 1671 | 0.12 ps | 2+ | +1.8(5) | | | TF | 2008WE07 | PRC C78 031301(R) (08) | |
| 40 Zr 95 | 0 | 64.0 d | 5/2+ | 1.13(2) | | | NMR/ON | 1991Be18 | PR C44 104 (91) | |
| | | | | | +0.22(2) | R | [90Zr(m) calc] | MAPON | 1998Se01 | PRL 80 924 (98) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|-------|------------|------------------------------|-------------|-------------|--------------------------|--------------------------|
| | | | | | (+)0.29(5) if Vzz (ZrZr) +ve | | | 1992Be50 | HFI 75 93 (92) |
| 40 Zr 96 | 1750 | 0.57 ps | 2+ | +0.06(14) | | | TF | 2003Ku11 | PL B562 193 (03) |
| | 1897 | 67.8 ps | 3- | +2.9(5) | | | TF | 2003Ku11 | PL B562 193 (03) |
| 40 Zr 97 | 0 | 16.8 h | 1/2+ | -0.937(5) | | [91Zr] | CLS | 2003TH03 | JP G29 2247 (03) |
| | 1264 | 102 ns | 7/2+ | +1.37(14) | | | TDPAC | 1985Be20 | PL 156B 159 (85) |
| 40 Zr 99 | 0 | 2.2 s | 1/2+ | -0.930(4) | | [91Zr] | CLS | | |
| | 122 | 1.07 ns | 3/2+ | +0.42(6) | | | IPAC | 1995Wo01 | PR C51 2381 (95) |
| 40 Zr 100 | 213 | 0.61 ns | 2+ | +0.60(6) | | | IPAC | 2004SM04 | PL B591 55 (04) |
| | | | | 0.52(12) | | | IPAC | 1989Wo05 | PR C40 932 (89) |
| | | | | 0.44(10) | | | IPAC | 1980Wo09 | PL 97B 195 (80) |
| 40 Zr 101 | 0 | 2.4s | 3/2+ | -0.272(8) | | [91Zr] | CLS | 2003TH03 | JP G29 2247 (03) |
| | | | | | +0.81(6) | R | [91Zr] | CLS | 2002Ca37 |
| | 98 | 0.6 ns | 5/2+ | +0.12(7) | | | IPAC | 2006OR05 | PR C73 054310 (06) |
| | 217 | 0.33 ns | 5/2- | -0.5(3) | | | IPAC | 2006OR05 | PR C73 054310 (06) |
| | 232 | <7 ps | 7/2+ | +0.6(4) | | | IPAC | 2006OR05 | PR C73 054310 (06) |
| | 321 | 0.27 ns | 7/2- | -0.14(11) | | | IPAC | 2006OR05 | PR C73 054310 (06) |
| 40 Zr 102 | 152 | 1.9 ns | 2+ | +0.44(10) | | | IPAC | 2004SM04 | PL B591 55 (04) |
| 41 Nb 87 | 2412 | 58 ps | 17/2- | +7.0(9) | | | IMPAD | 1995We03 | NP A584 133 (95) |
| | 2491 | 13.8 ps | 21/2+ | +4.3(14) | | | IMPAD | 1995We03 | NP A584 133 (95) |
| | | | | +3.8(12) | | | CRDTF | 1998Ju02 | PRL 80 2793 (98) |
| | 2858 | 0.8 ps | 21/2+ | -6(11) | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| | 3217 | 0.6 ps | 23/2+ | +16(9) | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| | 3443 | 1.7 ps | 25/2+ | +3(2) | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| | 3739 | | 25/2+ | +1(3) | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| | 4127 | 3.0 ps | 25/2- | +6(5) | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| | 5010 | 3.5 ps | 29/2- | +7(2) | | | CRDTF | 1999Te02 | PR C59 1943 (99) |
| | | | | +8(3) | | | CRDTF | 1998Ju02 | PRL 80 2793 (98) |
| 41 Nb 89 | 0 | 2.0 h | 9/2+ | 6.216(5) | | | NMR/ON | 1997Hi06 | NP A620 317 (97) |
| | 2193 | 14 ns | 21/2+ | +3.40(7) | | | TDPAD | 1994Kr01 | PR C49 705 (94) |
| 41 Nb 90 | 0 | 14.6 h | 8+ | +4.952(4) | | [93Nb] | CLS | 2009CH25 | PRL 102 222501 (09) |
| | | | | 4.961(4) | | [93Nb] | NMR/ON | 1981Ha24 | NP A365 13 (81) |
| | | | | | +0.01(4) | R | [93Nb] | CLS | 2009CH25 |
| | | | | | +0.046(7) | | [95Nb calc] | MAPON | 1998Se01 |
| | 125 | 18.8 s | 4- | -0.018(9) | | [93Nb] | CLS | 2009CH25 | PRL 102 222501 (09) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | R | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------------------|-------|-------------------|-------------------------|---|-------------|--------------|---|---------------------------------|
| | | | | | -0.26(4) | R | [93Nb] | CLS | 2009CH25 | PRL 102 222501 (09) |
| | 122 | 66 μ s | 6+ | +3.72(2) | | | | TDPAD | 1975Ho16 | PL 58B 43 (75) |
| | 1881 | 477 ns | 11- | +8.78(3) | | | | TDPAD | 1978Ha52 | HFI 4 196 (78) |
| 41 Nb 91 | 0 | 680 y | 9/2+ | +6.521(2) | | | [93Nb] | CLS | 2009CH25 | PRL 102 222501 (09) |
| | | | | | -0.25(3) | R | [93Nb] | CLS | 2009CH25 | PRL 102 222501 (09) |
| | 105 | 60.9 d | 1/2- | -0.101(2) | | | [93Nb] | CLS | 2009CH25 | PRL 102 222501 (09) |
| | 1985 | 10 ns | 13/2- | +9.14(13) | | | | TDPAD | 1977ZaZW | Cf77Tash 374 (77) |
| | 2037 | 3.4 μ s | 17/2- | +10.82(14) | | | | TDPAD | 1977Ha49 | NP A293 248 (77) |
| | | | | +10.81(15) | | | | TDPAD | 1979PI05 | RRou 24 661 (79) |
| | 3467 | 0.9 ns | 21/2+ | +12(2) | | | | IPAD | 1977Ba34 | APPo B8 147 (77) |
| 41 Nb 92 | 0 | 3.5×10^7 y | 7+ | +5.136(4) | | | [93Nb] | CLS | 2009CH25 | PRL 102 222501 (09) |
| | | | | | -0.35(3) | R | [93Nb] | CLS | 2009CH25 | PRL 102 222501 (09) |
| | 135 | 10.15 d | 2+ | (+)6.137(4) | | | [93Nb] | NMR/ON | 1981Ha24 | NP A365 13 (81) |
| | 225 | 4.3 μ s | 2- | -1.398(14) | | | | SOPAD, TDPAD | 1974Le05 | NP A221 319 (74) |
| | 2203 | 167 ns | 11- | +9.7(3) | | | | TDPAD | 1977Br12 | PR C15 2044 (77) |
| 41 Nb 93 | 0 | stable | 9/2+ | +6.1705(3) | | | [45Sc] | N,O | 1951Sh33 , 1947Me27 | PR 82 651 (51), PR 72 451 (47) |
| | | | | | -0.32(2) | R | | Mu-X | 1973Po15 | NP A217 573 (73) |
| | | | | | -0.37(2) | | | AB,R | 1989Ra17 | Bk82HFS (83) |
| 41 Nb 95 | 0 | 35.2 d | 9/2+ | 6.141(5) | | | [93Nb] | NMR/ON | 1986Ed01 | NP A451 46 (86) |
| | | | | 6.140(6) | | | [93Nb] | NMR/ON | 1085Oh08 | NP A445 29 (85) |
| | | | | 6.143(5) | | | [93Nb] | NMR/ON | 1981Ha24 , 1977Ko31 | NP A365 13 (81), HFI 3 321 (77) |
| | | | | 6.004(12) | | | | BFNMR/ON | 1989Ra17 | JLTP 27 651 (77) |
| | | | | | Q -ve if Vzz (NbZr) +ve | | | | 1992Be50 | HFI 75 93 (92) |
| 41 Nb 96 | 0 | 23.4 h | 6+ | 4.976(4) | | | [93Nb] | NMR/ON | 1986Ed01 | NP A451 46 (86) |
| | | | | 4.975(4) | | | [93Nb] | NMR/ON | 1985Oh08 | NP A445 29 (85) |
| 41 Nb 97 | 0 | 72.1 m | 9/2+ | 6.153(5) | | | | NMR/ON | 1991Be18 | PR C44 104 (91) |
| 41 Nb 99 | 0 | 15 s | 9/2+ | +5.97(3) | | | [93Nb] | CLS | 2009CH25 | PRL 102 222501 (09) |
| | | | | | -0.42(14) | R | [93Nb] | CLS | 2009CH25 | PRL 102 222501 (09) |
| 41 Nb 101 | 0 | 7.1 s | 5/2+ | +3.190(2) | | | [93Nb] | CLS | 2009CH25 | PRL 102 222501 (09) |
| | | | | | +1.05(7) | R | [93Nb] | CLS | 2009CH25 | PRL 102 222501 (09) |
| 41 Nb 103 | 0 | 1.5 s | 5/2+ | +3.137(4) | | | [93Nb] | CLS | 2009CH25 | PRL 102 222501 (09) |
| | | | | | +1.08(9) | R | [93Nb] | CLS | 2009CH25 | PRL 102 222501 (09) |
| 42 Mo 88 | - | - | 6+,8+ | g(avge) = +0.5(3) | | | | IMPAD | 1995We03 | NP A584 133 (95) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|-------------|-------|------------|----------------------|---|-------------|---------|--------------------------|---------------------------------|
| 42 Mo 89 | 2584 | 9.5 ns | 21/2+ | +8.3(4) | | | [90Mo 2875] | TDPAD | 1995We12 | ZP A353 7 (95) |
| 42 Mo 90 | 2594 | 16 ps | 5- | +5.5(14) | | | | IMPAD | 1994We09 | JP G20 L77 (94) |
| | 2875 | 1.1 μ s | 8+ | -1.391(14) | | | | TDPAD | 1978Ha52 | HFI 4 196 (78) |
| | | | | | 0.61(3) | R | [92Mo 2760] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.58(3) | | [92Mo 2760] | TDPAD | 1985Ra09 | PRL 54 2592 (85) |
| | 4842 | 39 ps | 11- | +4.6(14) | | | | IMPAD | 1994We09 | JP G20 L77 (94) |
| | 4556 | 526 ps | 12+ | +6.0(7) | | | | IMPAD | 1994We09 | JP G20 L77 (94) |
| 42 Mo 91 | 0 | 15.5 m | 9/2+ | -0.932(3) | | | [95,97Mo] | TLS | 2009CH09 | PL B674 23 (09) |
| | 2267 | 47 ns | 21/2+ | +8.81(8) | | | [90Mo 2875] | TDPAD | 1983Ra08 | PR C27 1532 (83) |
| | | | | +8.97(9) | | | | TDPAD | 1977Ha49 | NP A293 248 (77) |
| | 2279 | 38 ns | 17/2- | +4.51(6) | | | [90Mo 2875] | TDPAD | 1983Ra08 | PR C27 1532 (83) |
| 42 Mo 92 | 1509 | 0.38 ps | 2+ | +2.3(3) | | | | TF | 2001Ma17 | PR C63 034312 (01) |
| | 2760 | 190 ns | 8+ | +11.30(5) | | | | TDPAD | 1977Ha49 | NP A293 248 (77) |
| | | | | +11.35(8) | | | | TDPAD,R | 1977Ku22 | IzF 41 1624 (77) |
| | | | | | (-)0.36 | R | [B(E2)] | TDPAD | 1991Ha04 | PR C43 2140 (91) |
| | | | | | 0.34 | | [B(E2)] | TDPAD | 1985Ra09 | PRL 54 2592 (85) |
| | 4486 | 9.2 ns | 11- | +13.9(3) | | | | TDPAD | 1977Ha49 | NP A293 248 (77) |
| | | | | +14.17(13) | | | | TDPAD,R | 1977Ku22 | IzF 41 1624 (77) |
| 42 Mo 93 | 2425 | 6.85 h | 21/2+ | (+)9.93(8) | | | [95Mo] | NMR/ON | 1981Ha12 | PR C23 2252 (81) |
| 42 Mo 94 | 871 | 2.9 ps | 2+ | +0.62(9) | | | | TF | 2001Ma17 | PR C63 034312 (01) |
| | | | | | -0.13(8) or +0.01(8) | R | | CER | 1976Pa13 | PR C14 835 (76) |
| | 2956 | 98 ns | 8+ | +10.46(7) | | | | TDPAD | 1979LeZL | Cf79Riga 243 (79) |
| | | | | +10.54(12) | | | | TDPAD | 1975Fa04 | ZP A273 157 (75) |
| | | | | | 0.50(1) | R | [92Mo 2760] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.47(1) | | [92Mo 2760] | TDPAD | 1985Ra09 | PRL 54 2592 (85) |
| 42 Mo 95 | 0 | stable | 5/2+ | -0.9142(1) | | | [97Mo] | N | 1951Pr02 | PR 81 20 (51) |
| | | | | | -0.022(1) | R | [97Mo] | AB | | Bk82HFS 83 (82) |
| | | | | | -0.015(4) | | | ABLDF | 1978Du24 | PL 65A 109 (78) |
| | 204 | 0.75 ns | 3/2+ | -0.404(12) | | | | IPAC | 1984Al11 | ZP A317 107 (84) |
| | | | | -0.378(15) | | | | IPAC | 1976Jo03 | PS 14 260 (76) |
| 42 Mo 96 | 778 | 3.7 ps | 2+ | +0.79(6) | | | | TF | 2001Ma17 | PR C63 034312 (01) |
| | | | | | -0.20(8) or +0.04(8) | R | | CER | 1976Pa13 | PR C14 835 (76) |
| 42 Mo 97 | 0 | stable | 5/2+ | -0.9335(1) | | | [14N] | N | 1951Pr02 | PR 81 20 (51) |
| | | | | | +0.255(13) | R | | AB, R | | Bk82HFS 83 (82) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|------------|--------|--------------|----------------------|-------------|--------|--------------------------|------------------------------|
| | | | | | +0.17(4) | | ABLDF | 1978Du24 | PL 65A 109 (78) |
| | | | | | 0.27(10) a | | Mu-X | 1980Sc01 | NP A333 333 (80) |
| 42 Mo 98 | 787 | 3.5 ps | 2+ | +0.97(6) | | [106Pd 512] | TF | 2011Ch23 | PR C83 054318 (2011) |
| | | | | +0.97(7) | | | TF | 2001Ma17 | PR C63 034312 (01) |
| | | | | +0.7(4) | | | IMPAC | 1969He11 | NP A133 310 (69) |
| | | | | | -0.26(9) | R | CER, R | 1979Pa11 | PR C20 1201 (79) |
| 42 Mo 99 | 0 | 65.9 h | 1/2+ | 0.375(3) | | [95Mo] | AB | 1978Ru04 | PS 18 209 (78) |
| | 98 | 17 μ s | 5/2+ | -0.775(5) | | | TDPAD | 1978Ra21 | PR C18 2494 (78) |
| | 536 | 10.3 ps | 2+ | +0.94(7) | | | TF | 2001Ma17 | PR C63 034312 (01) |
| 42 Mo 100 | 536 | 10.3 ps | 2+ | +0.94(7) | | | TF | 2001Ma17 | PR C63 034312 (01) |
| | | | | +0.7(4) | | | IMPAC | 1969He11 | NP A133 310 (69) |
| | | | | | -0.25(7) | R | CER | 2011WR01 | Acta Phys Pol B42 803 (2011) |
| | | | | | -0.42(9) or -0.10(9) | | CER | 1976Pa13 | PR C14 835 (76) |
| | | | | | -0.39(8) or -0.13(8) | | CER | 1977Na06 | JP G3 507 (77) |
| 42 Mo 102 | 297 | 0.11 ns | 2+ | 0.84(14) | | | IPAC | 1985Me13 | ZP A321 593 (85) |
| | | | | +0.8(4) | | | IPAC | 2004SM04 | PL B591 55 (04) |
| 42 Mo 103 | 0 | 67.5 s | 3/2+ | -0.27(2) | | [95,97Mo] | TLS | 2009CH09 | PL B674 23 (09) |
| | 103 | 0.43 ns | 5/2+ | +0.14(3) | | | IPAC | 2006OR05 | PR C73 054310 (06) |
| | 354 | 1.20 ns | 7/2- | -0.33(11) | | | IPAC | 2006OR05 | PR C73 054310 (06) |
| 42 Mo 104 | 192 | 0.9 ns | 2+ | +0.50(4) | | | IPAC | 2002Pa14 | JP G28 649 (02) |
| | | | | +0.54(4) | | | IPAC | 2004SM04 | PL B591 55 (04) |
| | | | | 0.4(2) | | | IPAC | 1985Me13 | ZP A321 593 (85) |
| 42 Mo 105 | 0 | 35.6 s | (5/2-) | -0.55(2) | | [95,97Mo] | TLS | 2009CH09 | PL B674 23 (09) |
| | 95 | 0.48 ns | 7/2- | -0.22(3) | | | IPAC | 2006OR05 | PR C73 054310 (06) |
| | 234 | 0.11 ns | 9/2- | -0.12(16) | | | IPAC | 2006OR05 | PR C73 054310 (06) |
| 42 Mo 106 | 172 | 1.25 ns | 2+ | +0.42(4) | | | IPAC | 2004SM04 | PL B591 55 (04) |
| 42 Mo 107 | 66 | 245 ns | | g = -0.92(3) | | | TDPAC | 1976ChZD | Cf76Carg 471 (76) |
| 42 Mo 108 | 193 | 0.50 ns | 2+ | +1.0(6) | | | IPAC | 2004SM04 | PL B591 55 (04) |
| 43 Tc 92 | 2002 | 3.2 ns | 11- | +8.9(3) | | | TDPAD | 1996Tu03 | PR C54 2904 (96) |
| 43 Tc 93 | 0 | 2.75 h | 9/2+ | 6.32(6) | | | NMR/ON | 1995Hi06 | ZP A350 311 (95) |
| | | | | 6.26(10) | | | NMR/ON | 1981Ha16 | NP A 361 355 (81) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|-----------------------|-------|--------------|------------|-------------|--------|--------------------------|---------------------|
| | 2186 | 10.1 μ s | 17/2- | +10.46(5) | | | TDPAD | 1977Ha49 | NP A293 248 (77) |
| 43 Tc 94 | 0 | 293 m | 7+ | 5.12(5) | | | NMR/ON | 1995Hi06 | ZP A350 311 (95) |
| | | | | 5.08(8) | | | NMR/ON | 1981Ha16 | NP A361 355 (81) |
| | | | | 5.0(3) | | | NO/S | 1977Be19 | PR C15 1839 (77) |
| 43 Tc 95 | 0 | 20.0 h | 9/2+ | 5.94(6) | | | NMR/ON | 1995Hi06 | ZP A350 311 (95) |
| | | | | 5.89(10) | | | NMR/ON | 1981Ha16 | NP A361 355 (81) |
| | | | | 5.82(12) | | | NO/S | 1977Wi10 | HFI 3 157 (77) |
| 43 Tc 96 | 0 | 4.28 d | 7+ | 5.09(5) | | | NMR/ON | 1995Hi06 | ZP A350 311 (95) |
| | | | | +5.04(8) | | | NMR/ON | 1981Ha16 | NP A361 355 (81) |
| | | | | 5.4(2) | | | NMR/ON | 1975Sa18 | HFI 1 183 (75) |
| | 120 | 26 ns | (2)- | -0.47(2) | | | TDPAD | 1977BeWG | Cf77Tash 370 (77) |
| 43 Tc 99 | 0 | 2.1x10 ⁵ y | 9/2+ | +5.6847(4) | | [2H] | N | 1952Wa02 | PR 85 479 (52) |
| | | | | | -0.129(6) | R | AB | | Bk82HFS 83 (82) |
| | 141 | 0.205 ns | 7/2+ | +4.48(15) | | [99Tc] | IPAC | 1993Al23 | ZP A347 1 (93) |
| | | | | 3.6(9) | | | ME | 1973Sh21 | JP A6 L144 (73) |
| | | | | +4.4(9) | | | IPAC | 1969In07 | PR 188 605 (69) |
| | 181 | 3.44 ns | 5/2+ | 3.48(4) | | | NMR/ON | 1995Hi06 | ZP A350 311 (95) |
| | | | | +3.62(5) | | | IPAC | 1993Al23 | ZP A347 1 (93) |
| | | | | +3.29(6) | | | TDPAC | 1971Wi08 | ZP 243 166 (71) |
| 43 Tc 108 | >153 | 100 ns | | g = +0.50(4) | | | TDPAC | 1976ChZD | Cf76Carg 471 (76) |
| 44 Ru 93 | 2082 | 2.4 μ s | 21/2+ | +8.97(2) | | | TDPAD | 1983Gr33 | HFI 15 65 (83) |
| | | | | | (+)0.04(1) | R | TDPAD | 1991Ha04 | PR C43 2140 (91) |
| | 2279 | 35 ns | 17/2- | +4.4(2) | | | TDPAD | 1983Gr33 | HFI 15 65 (83) |
| 44 Ru 94 | 2498 | 65 ns | 6+ | +8.12(5) | | | TDPAD | 1977Ha49 | NP A293 248 (77) |
| | | | | +8.10(7) | | | TDPAD | 1979LeZK | CF79Riga 243 (79) |
| | 2643 | 68 μ s | 8+ | +11.10(4) | | | TDPAD | 1977Ha49 | NP A293 248 (77) |
| | 4489 | 1.10 ns | 11- | 14.1(1.7) | | | IMPAD | 99Ju04 | EurPJ A6 29 (99) |
| | 4716 | 34.3 ps | 12+ | 12.4(1.7) | | | IMPAD | 99Ju04 | EurPJ A6 29 (99) |
| 44 Ru 95 | 0 | 1.64 h | 5/2+ | 0.861(7) | | | NMR/ON | 1991Hi17 | NP A534 339 (91) |
| | 2285 | 3 ns | 17/2+ | +6.98(14) | | | TDPAC | 1976LE30 | BRASP 40 6-128 (76) |
| | 2540 | 10 ns | 21/2+ | +9.17(7) | | | TDPAD | 1988Gr34 | PRL 61 1249 (88) |
| | 3908 | 36 ps | 25/2- | 11(4) | | | IMPAD | 99Ju04 | EurPJ A6 29 (99) |
| | 6211 | 9.5 ps | 29/2+ | 9(5) | | | IMPAD | 99Ju04 | EurPJ A6 29 (99) |
| | 7624 | 21 ps | 35/2+ | 7(2) | | | IMPAD | 99Ju04 | EurPJ A6 29 (99) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|------|---------|--------|-------------------------------|----------------------|-------------|--------------------------|-----------------------------------|-----------------------------------|----------------------------------|
| 44 Ru 96 | 833 | 2.7 ps | 2+ | +0.89(6) | | | TF | 2011Ch23 | PR C83 054318 (11) | |
| | | | | +0.94(6) | | | TF | 2011Ta06 | PR C83 044315 (11) | |
| | | | | +0.92(4) | | | TF | 2012To01 | PR C85 017305 (12) | |
| | | | | | -0.15(8) | R | CER | 1991Ha04 | PR C43 2140 (1991) | |
| | | | | | -0.13(9) | | | CER | 1980La01 | PR C21 588 (80) |
| | | | | | -0.1(2) | | | CER | 1977Ma41 | JP G3 1735 (77) |
| | | | | | -0.2(3) | | | CERP | 1978Fa08 | PS 18 47 (78) |
| | | 1515 | 6.9 ps | 4+ | +2.3(3) | | | TF | 2012To01 | PR C85 017305 (12) |
| 44 Ru 97 | 0 | 2.88 d | 5/2+ | (-0.787(8) | | [101Ru] | NMR/ON | 1985Ed06/1980Le09 | PR C32 1707 (85)/PR C21 2581 (80) | |
| | | | | 0.73(5) | | [101Ru] | NO/S | 1981Lu04 | ZP A299 353 (81) | |
| | 2739 | 7.8 ns | 21/2+ | +9.2(8) | | | TDPAD | 1982Di18 | RRou 27 731 (82) | |
| 44 Ru 98 | 653 | 5.9 ps | 2+ | +0.82(6) | | | TF | 2011Ch23 | PR C83 054318 (11) | |
| | | | | +0.94(6) | | | TF | 2011Ta06 | PR C83 044315 (11) | |
| | | | | +0.8(6) | | | IMPAC | 1974Hu01 | PR C9 1954 (74) | |
| | | | | | -0.21(8) or -0.01(9) | R | CER | 1991Ha04 | PR C43 2140 (1991) | |
| | | | | | -0.20(9) or -0.01(9) | | CER | 1980La01 | PR C21 588 (80) | |
| | | | | -0.03(14) | [102Ru 475] | CER | 1977Ma41 | JP G3 1735 (77) | | |
| 44 Ru 99 | 0 | stable | 5/2+ | -0.641(5) | | | AB/D | 1977Bu04 | ZP A280 217 (77) | |
| | | | | $g(99/101)_{gs}=0.8922344(4)$ | | [101Ru] | N | 1982Br28 | ZP A309 119 (82) | |
| | | | | | +0.079(4) | R | [101Ru] | AB, R | 1977Bu04 | Bk82HFS 83 (82)/ZP A280 217 (77) |
| | 90 | 20.5 ns | 3/2+ | -0.284(6) | | | TDPAC | 1965Ma27 | PR 139 B532 (65) | |
| | | | | -0.292(3) | | [99Ru] | ME | 1989Ra17 | JDal 1253 (73) | |
| | | | | | +0.231(13) | R | [99Ru] | ME | 1976Ki02/1974Gi12 | PR C13 1132 (76)/CPL 29 379 (74) |
| 44 Ru 100 | 540 | 12 ps | 2+ | +0.86(5) | | | TF | 2011Ch23 | PR C83 054318 (11) | |
| | | | | +0.88(6) | | | TF | 2011Ta06 | PR C83 044315 (11) | |
| | | | | +1.02(13) | | | IPAC | 1966Au06 | PL 23 367 (66) | |
| | | | | | -0.44(4) or -0.27(7) | R | CER | 1998Hi01 | PR C57 76 (98) | |
| | | | | | -0.54(7) or -0.33(7) | | CER | 1998Hi01 | PR C57 76 (98) | |
| | | | | | -0.43(7) or -0.20(7) | | CER | 1980La01 | PR C21 588 (80) | |
| | | | | | -0.54(7) or -0.33(7) | | CER | 1980HiZV | Cf80Berk 102 (80) | |
| | | | | | -0.40(12) | | CERP | 1978Fa08 | PS 18 47 (78) | |
| | | | | -0.13(7) | [102Ru 475] | CER | 1977Ma41 | JP G3 1735 (77) | | |
| 44 Ru 101 | 0 | stable | 5/2+ | -0.719(6) | | | AB/D | 1977Bu04 | ZP A280 217 (77) | |
| | | | | -0.716(6) | | [99Ru] | N | 1974Mu09 | JPJa 36 634 (74) | |
| | | | | | +0.46(2) | R | AB, R | 1977Bu04 | Bk82HFS 83 (82)/ZP A280 217 (77) | |
| | 127 | 0.65 ns | 3/2+ | -0.210(5) | | [99Ru 90] | TDPAC | 1986Sc15 | PR C33 2176 (86) | |
| | | | | -0.236(12) | | | IPAC | 1984Al11 | ZP A317 107 (84) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|----------|-------------|-------------|-----------------|--------------------------|-----------------|--------------------------|--------------------------|-----------------------------------|
| 44 Ru 102 | 475 | 18 ps | 2+ | +0.91(5) | | | TF | 2011Ch23 | PR C83 054318 (11) |
| | | | | +0.86(6) | | | TF | 2011Ta06 | PR C83 044315 (11) |
| | | | | +0.74(6) | | | IPAC | 1972Jo06 | NP A188 600 (72) |
| | | | | | -0.63(4) or -0.34(3) | R | CER | 1998Hi01 | PR C57 76 (98) |
| | | | | | -0.64(5) or -0.33(4) | | CER | 1998Hi01 | PR C57 76 (98) |
| | | | | | -0.57(7) or -0.35(7) | | CER | 1980La01 | PR C21 588 (80) |
| | | | | -0.68(8) | | | CER | 1979Bo28 | ZP A292 265 (79) |
| 44 Ru 103 | 0 | 39.4 d | 3/2+ | 0.206(3) | | | NMR/ON | 1990Hi02 | NP A509 541 (90) |
| | | | | 0.200(7) | | | NMR/ON | 1983Kr01 | PR C27 411 (83) |
| | | | | 0.19(2) | | [101Ru] | NO/S | 1981Mu18 | HFI 11 127 (81) |
| | | | | (-)0.23(6) | | [101Ru] | NO/S | 1981Lu04 | ZP A299 353 (81) |
| | | | | | (+)0.62(2) | R | [99Ru 90] | NO/S | 1986Gr26/1983Ko49 |
| 44 Ru 104 | 358 | 58 ps | 2+ | +0.81(4) | | | TF | 2011Ch23 | PR C83 054318 (11) |
| | | | | +0.78(6) | | | TF | 2011Ta06 | PR C83 044315 (11) |
| | | | | +0.82(10) | | | IMPAC, R | 1974Hu01 | PR C9 1954 (74) |
| | | | | | -0.78(7) or -0.20(12) | R | CER | 1998Hi01 | PR C57 76 (98) |
| | | | | | -0.62(8) or -0.05(7) | | CER | 1998Hi01 | PR C57 76 (98) |
| | | | | | -0.70(8) or -0.35(8) | | CER | 1980La01 | PR C21 588 (80) |
| | | | | | -0.8(2) | | CERP | 1978Fa08 | PS 18 47 (78) |
| | -0.66(5) | | [102Ru 475] | CER | 1977Ma41 | JP G3 1735 (77) | | | |
| 44 Ru 105 | 0 | 4.44h | 3/2+ | (-)0.32(+8/-20) | | [101Ru] | NO/S | 1981Lu04 | ZP A299 353 (81) |
| 44 Ru 106 | 270 | est 0.20 ns | 2+ | +0.6(2) | | | IPAC | 2004SM04 | PL B591 55 (04) |
| 44 Ru 108 | 242 | 0.34 ns | 2+ | +0.46(8) | | | IPAC | 2004SM04 | PL B591 55 (04) |
| | | or 0.29 ns | | +0.56(8) | | IPAC | 2005SM08 | J Phys. G 31 S1433 (05) | |
| 44 Ru 109 | >95 | 780 ns | — | g = -0.22(1) | | | TDPAD | 1976ChZD | Cf76Carg 471 (76) |
| 44 Ru 110 | 241 | 0.30 ns | 2+ | +0.88(14) | | | IPAC | 2004SM04 | PL B591 55 (04) |
| | | or 0.33 ns | | +0.82(12) | | IPAC | 2005SM08 | J Phys. G 31 S1433 (05) | |
| 44 Ru 112 | 237 | 0.32 ns | 2+ | +0.9(2) | | | IPAC | 2004SM04 | PL B591 55 (04) |
| 45 Rh 95 | 2236 | 19 ns | 17/2- | +10.9(3) | | | TDPAD | 1983Gr33 | HFI 15 65 (83) |
| 45 Rh 99 | 65 | 4.7 h | 9/2+ | 5.62(6) | | | NMR/ON, R | 1995Se20 | PR B51 11484 (95) |
| | | | | 5.668(12) | | [100Rh 75] | NMR/ON | 1985Ed06 | PR C32 1707 (85) |
| | | | | 5.666(14) | | [100Rh 75] | NMR/ON | 1986Ni02 | NP A451 233 (86) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-----------|--------------|-----------------------------------|---------------|--------------------------|------------------|--------------------------|-----------------------------------|---|
| 45 Rh 100 | 75 | 215 ns | 2+ | +4.324(8) | 0.153(18) | R | TDPAC | 1966Ma54 | NIM 45 309 (66) |
| | | | | | | | PAC | 2008Py02/1996Bi15 | Mol Phys 106 1965 (2008)/HFI 97/98 3 (1996) |
| | 112+x | 140 ns | 7+ | +4.69(14) | | | TDPAD | 1990Bi03 | ZP A335 365 (90) |
| | | | | +4.8(4) | | | TDPAD | 1986RaZU | BAPS 31 1210 (86) |
| 45 Rh 101 | 157 | 4.34 d | 9/2+ | 5.43(6) | | | NMR/ON, R | 1995Se20 | PR B51 11484 (95) |
| | | | | +5.475(12) | | | NMR/ON | 1985Ed06/1973Ka28 | PR C32 1707 (85)/PR C8 1074 (73) |
| | | | | 5.472(14) | | | NMR/ON | 1986Ni02 | NP A451 233 (86) |
| 45 Rh 102 | 0 | 206 d | 2- | 0.5(4) | | | NO/S | 1975Sc09 | NP A243 309 (75) |
| | | | | 4.01(4) | | | NMR/ON, R | 1995Se20 | PR B51 11484 (95) |
| | 141 | 2.9 y | 6+ | 4.040(9) | | | NMR/ON | 1989Hi12 | NP A504 467 (89) |
| | | | | 4.044(12) | | | NMR/ON | 1986Ni02 | NP A451 233 (86) |
| 45 Rh 103 | 0 | stable | 1/2- | -0.8840(2) | | [2H] | N | 1955So10 | PR 98 1316 (55) |
| | | | | 40 | | | 56.1 m | 7/2+ | 4.50(5) |
| | 4.540(11) | NMR/ON | 1985Ed06/1977Ke10 | | | | | | PR C32 1707 (85)/ZP A281 341 (77) |
| | 93 | 1.06 ns | 9/2+ | +4.9(8) | | | IPAC | 1973Ba52 | PS 8 90 (73) |
| | | | | 295 | | | 6.7 ps | 3/2- | +0.81(8) |
| | +0.69(12) | TF | 1988Be45 | | | | | | HFI 43 457 (88) |
| | 357 | 73 ps | 5/2- | +1.08(8) | | | CERP | 1976Ge19 | ZP A279 183 (76) |
| | | | | +0.9(2) | | | TF | 1989La14 | NP A496 589 (89) |
| | | | | +1.09(5) | | | TF | 1988Be45 | HFI 43 457 (88) |
| | | | | -0.4(2) | | | CEAD | 1972Sz03 | NP A196 58 (72) |
| 848 | 1.9 ps | 7/2- | +2.0(6) | CERP | 1976Ge19 | ZP A279 183 (76) | | | |
| | | | 920 | 5.6 ps | 9/2- | +2.8(5) | TF | 1989La14 | NP A496 589 (89) |
| | | | | | | TF | 1989La14 | NP A496 589 (89) | |
| | | | 45 Rh 104 | 215.5 + x | 47 ns | 6- | +2.00(6) | | |
| 45 Rh 105 | 0 | 35.4 h | 7/2+ | 4.41(5) | | | NMR/ON,R | 1995Se20 | PR B51 11484 (95) |
| | | | | 4.452(10) | | | NMR/ON | 1985Ed06/1981Ha19 | PR C32 1707 (85)/PR C23 2683 (81) |
| | | | | 4.36(12) | | | NO/S | 1977Wi10 | HFI 3 157 (77) |
| 45 Rh 106 | 0 | 29.8 s | 1+ | 2.575(7) | | [100Rh 75] | NMR/ON | 1990Oh01 | PR C41 243 (90) |
| | | | | 3.09(9) | | | NO/S | 1977Ru08 | HFI 3 479 (77) |
| | | | | sign positive | | | NO/ β S | 1992Ma54 | HFI 75 415 (92) |
| 46 Pd 96 | 2532 | 2.22 μ s | 8+ | +10.97(6) | | | TDPAD | 1983Gr01 | PL 120B 63 (83) |
| | | | | 7039 | | | 35 ns | (15+) | (+) μ 12.5(6) |
| 46 Pd 100 | 666 | 6.2 ps | 2+ | +0.6(3) | | | TF | 2011To09 | PR C84 044327 |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|-------|------------|----------------------|-------------|-------------|--------------------------|----------------------|
| | 1416 | 2.5 ps | 4+ | +1.8(6) | | | TF | 2011To09 | PR C84 044327 |
| 46 Pd 101 | 0 | 8.5 h | 5/2+ | (-)0.66(2) | | [105Pd] | NMR/ON | 1986Ni02 | NP A451 233 (86) |
| 46 Pd 102 | 556 | 11.3 ps | 2+ | +0.82(6) | | [106Pd 512] | TF | 2011Ch23 | PR C83 054318 (2011) |
| | | | | +0.82(8) | | [106Pd 512] | TF | 1980Br01 | PR C21 574 (80) |
| | | | | +0.78(10) | | [106Pd 512] | TF | 1985ThZX | BAPS 30 1264 (85) |
| | | | | | -0.20(15) | R | CERP | 1977Fa11 | NIM 146 329 (77) |
| | | | | | -0.2(2) | | CER | 1977La16 | NP A292 301 (77) |
| 46 Pd 103 | 785 | 25 ns | 11/2- | -1.05(6) | | | TDPAD | 1981KaZE | ZfK-455 27 (81) |
| 46 Pd 104 | 556 | 9.7 ps | 2+ | +0.89(6) | | [106Pd 512] | TF | 2011Ch23 | PR C83 054318 (2011) |
| | | | | +0.92(8) | | [106Pd 512] | TF | 1980Br01 | PR C21 574 (80) |
| | | | | +0.76(8) | | [106Pd 512] | TF | 1985ThZX | BAPS 30 1264 (85) |
| | | | | 0.80(10) | | [106Pd 512] | RIGV | 1979LaZL | DisA 40 803B (79) |
| | | | | | -0.46(11) | R | CERP | 1977Fa11 | NIM 146 329 (77) |
| 46 Pd 105 | 0 | stable | 5/2+ | -0.642(3) | | | N | 1964Se13 | PR 136 A1119 (64) |
| | | | | | 0.660(11) | R | Mu-X | 1978Vu01 | NP A294 273 (78) |
| | | | | | +0.65(3) | | AB, R | | Bk82HFS 83 (82) |
| | 280 | 67 ps | 3/2+ | -0.074(13) | | [105Pd 645] | IPAC | 1981Al19 | ZP A302 223 (81) |
| | 319 | 38 ps | 5/2+ | +1.0(2) | | [105Pd 645] | IPAC | 1981Al19 | ZP A302 223 (81) |
| | 645 | 126 ps | 7/2- | -1.49(9) | | | IPAC | 1981Al19 | ZP A302 223 (81) |
| 46 Pd 106 | 512 | 12 ps | 2+ | +0.79(5) | | | R | 2011Ch23 | PR C83 054318 (2011) |
| | | | | +0.78(3) | | | R | 2010GU20 | PR C82 064301 (10) |
| | | | | +0.80(4) | | | IPAC,R | 1980Br01 | PR C21 574 (80) |
| | | | | | -0.51(7) | R | ES | 1973Ho05 | PRL 30 388 (73) |
| | | | | | -0.56(8) or -0.41(8) | | CER,R | 1972Lu08 | PR C6 1385 (72) |
| | 1128 | 3.1 ps | 2+ | +0.96(18) | | [106Pd 512] | TF | 2010GU20 | PR C82 064301 |
| | | | | +0.60(12) | | | IPAC | 1970Si20 | JPJa 29 1111 (70) |
| | | | | | | | | 1968Bo15 | PRL 20 1176 (68) |
| | | | | | | | | 1968We16 | NP A122 577 (68) |
| | 1229 | 1.5 ps | 4+ | +1.8(4) | | [106Pd 512] | TF | 2010GU20 | PR C82 064301 |
| 46 Pd 108 | 434 | 23 ps | 2+ | +0.69(4) | | [106Pd 512] | TF | 2011Ch23 | PR C83 054318 (2011) |
| | | | | +0.72(6) | | [106Pd 512] | TF | 1980Br01 | PR C21 574 (80) |
| | | | | +0.76(6) | | | IMPAC, R | 1974Hu01 | PR C9 1954 (74) |
| | | | | +0.64(6) | | [106Pd 512] | TF | 1985ThZX | BAPS 30 1264 (85) |
| | | | | 0.84(10) | | [106Pd 512] | RIGV | 1979LaZL | DisA 40 803B (79) |
| | | | | | -0.58(4) | R | ES | 1978Ar07 | JP G4 961 (78) |
| | | | | | -0.48(5) | | [110Pd 374] | 1977Ma41 | JP G3 1735 (77) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-----|---------|--------|------------|----------------------|-------------|-------------|-----------------------------------|-----------------------------------|
| | | | | | -0.51(6) or -0.30(6) | | CER | 1972Lu08 | PR C6 1385 (72) |
| | | | | | -0.7(2) | | CERP | 1976Ha21 | NP A264 341 (76) |
| | | | | | -0.7(3) | | ES, R | 1981Ko06 | JP G7 L63 (81) |
| 46 Pd 110 | 374 | 46 ps | 2+ | +0.67(4) | | [106Pd 512] | TF | 2011Ch23 | PR C83 054318 (2011) |
| | | | | +0.62(6) | | [106Pd 512] | TF | 1980Br01 | PR C21 574 (80) |
| | | | | +0.62(6) | | | IMPAC, R | 1974Hu01 | PR C9 1954 (74) |
| | | | | +0.70(6) | | [106Pd 512] | TF | 1985ThZx | BAPS 30 1264 (85) |
| | | | | 0.74(6) | | [106Pd 512] | RIGV | 1979LaZL | DisA 40 803B (79) |
| | | | | | -0.47(3) | | ES | 1976Li19 | PR C14 952 (76) |
| | | | | | -0.55(8) or -0.35(8) | R | CER, R | 1972Lu08 | PR C6 1385 (72) |
| 46 Pd 114 | 333 | 117 ps | 2+ | +0.5(2) | | | IPAC | 2004SM04 | PL B591 55 (04) |
| 46 Pd 116 | 341 | 0.11 ns | 2+ | +0.4(2) | | | IPAC | 2004SM04 | PL B591 55 (04) |
| 47 Ag 97 | 0 | 25.5 s | (9/2+) | +6.13(2) | | [109Ag] | GCLS | 2014Fe01 | PL B728 191 (2014) |
| 47 Ag 98 | 0 | 47.5 s | if 6 | +4.64(7) | | [109Ag] | GCLS | 2014Fe01 | PL B728 191 (2014) |
| | | | if 5 | +4.57(7) | | [109Ag] | GCLS | 2014Fe01 | PL B728 191 (2014) |
| 47 Ag 99 | 0 | 124 s | (9/2+) | +5.81(3) | | [109Ag] | GCLS | 2014Fe01 | PL B728 191 (2014) |
| 47 Ag 100 | 0 | 2.01 m | 5- | +4.37(3) | | [109Ag] | GCLS | 2014Fe01 | PL B728 191 (2014) |
| 47 Ag 101 | 0 | 11.4 m | 9/2+ | +5.57(4) | | [109Ag] | GCLS | 2014Fe01 | PL B728 191 (2014) |
| | | | | +5.627(11) | | [106mAg] | CLS | 1989DI12 | NP A503 331 (89) |
| | | | | 5.7(4) | | [110Ag 118] | NO/S | 1983Va09 | NP A396 115c (83) |
| | | | | | +0.35(5) | | [110Ag 118] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.33(5) | R | [calc efg] | 1989DI12 | NP A503 331 (89) |
| 47 Ag 102 | 0 | 13 m | 5+ | 4.6(7) | | [110Ag 118] | NO/S | 1985Va06/1983Va09 | HFI 22 483 (85)/NP A396 115c (83) |
| | 9 | 7.7 m | 2+ | 4.1(3) | | [107Ag] | AB | 1974Gr10 | PR C9 2028(74) |
| | 181 | 3.5 ns | 7+ | 4.6(3) | | | IPAD | 1989VoZR | Cf89Tshkt 71 (89) |
| 47 Ag 103 | 0 | 1.10 h | 7/2+ | +4.432(2) | | [106mAg] | CLS | 1989DI12 | NP A503 331 (89) |
| | | | | +4.47(5) | | | AB/D | 1970Wa35 | PS 1 238 (70) |
| | | | | | +0.84(9) | | [110Ag 118] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.80(9) | R | [calc efg] | 1989DI12 | NP A503 331 (89) |
| 47 Ag 104 | 0 | 69 m | 5+ | 3.919(3) | | [106mAg] | CLS | 1989DI12 | NP A503 331 (89) |
| | | | | 3.916(8) | | [110Ag 118] | R | 2010GO08 | PR C81 054323 (2010) |
| | | | | 3.917(8) | | [110Ag 118] | NMR/ON | 1986Va27 | PRL 57 2641 (86) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | R | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|-------|-----------------|-------------|---|-------------|--------------|-----------------------------------|-----------------------------------|
| | | | | | +1.06(11) | R | [110Ag 118] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +1.01(11) | | [calc efg] | CLS | 1989DI12 | NP A503 331 (89) |
| | 7 | 33 m | 2+ | 3.691(3) | | | [104Ag] | NMR/ON | 2010GO08 | PR C81 054323 (2010) |
| | | | | +3.7(2) | | | [107Ag] | AB | 1961Am02 | PR 123 1793 (61) |
| | | | | 4.1(3) | | | [110Ag 118] | NO/S | 1989Ra17 | ARLe 12 (85) |
| | 212 | 1.4 ns | 7+ | 4.8(3) | | | | IPAD | 1989VoZR | Cf89Tshkt 71 (89) |
| 47 Ag 105 | 0 | 41.3 d | 1/2- | 0.1014(10) | | | [107Ag] | AB | 1963Ew02 | PR 129 1617 (63) |
| | 25 | 7.2 m | 7/2+ | +4.414(13) | | | [106mAg] | CLS | 1989DI12 | NP A503 331 (89) |
| | | | | | +0.85(11) | R | [110Ag 118] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.81(11) | | [calc efg] | CLS | 1989DI12 | NP A503 331 (89) |
| | 1734 | 6.0 ns | 15/2+ | +3.73(14) | | | | TDPAD | 1980Le05 | IzF 44 202 (80) |
| | | | | +3.8(2) | | | | TDPAD | 1985Ke09 | NP A444 261 (85) |
| | | | | +4.4(5) | | | | TDPAD | 1979Ka05 | NP A315 334 (79) |
| 47 Ag 106 | 0 | 24 m | 1+ | +2.8(2) | | | [107Ag] | AB | 1974Gr10 | PR C9 2028 (1974) |
| | 90 | 85 d | 6+ | (+)3.705(4) | | | [110Ag 118] | BFNMR/ON | 2001OH03 | PR C63 044314 |
| | | | | +3.709(4) | | | [107Ag] | CLS | 1989DI12 | NP A503 331 (89) |
| | | | | (+)3.709(4) | | | | NMR/ON | 1984Ed02 | PR C30 676 (84) |
| | | | | (+)3.82(8) | | | [110Ag 118] | NO/S | 1984Be53 | PR C30 2026 (84) |
| | | | | | +1.06(16) | | [calc efg] | CLS | 1989DI12 | NP A503 331 (89) |
| | | | | | +1.11(11) | R | [110Ag 118] | NO/S | 1984Be53 | PR C30 2026 (84) |
| 47 Ag 107 | 0 | stable | 1/2- | -0.11357(2) | | | | AB/D | 1973Bu24 | ZNat 28a 1753 (73) |
| | | | | -0.11367965(15) | | | [2H] | N | 1974Sa25 | ZNat 29a 1763 (74) |
| | 93 | 44.3 s | 7/2+ | (+)4.398(5) | | | [109Ag 88] | NMR/ON | 1985Ed01 | PR C31 190 (85) |
| | | | | | 0.98(11) | R | [110Ag 118] | LMR | 1986Be01 | PR C33 390 (86) |
| | 325 | 5.0 ps | 3/2- | +0.9(2) | | | | TF | 1986Ba14 | PR C33 1461 (86) |
| | | | | +0.94(14) | | | [108Pd 434] | TF | 1984Wo08 | NP A427 639 (84) |
| | | | | +1.05(14) | | | [106Pd 512] | TF | 1984Ba72 | NuoC 84A 106 (84) |
| | 423 | 40.2 ps | 5/2- | +1.0(2) | | | | TF | 1986Ba14 | PR C33 1461 (86) |
| | | | | +0.93(15) | | | [108Pd 434] | TF | 1984Wo08 | NP A427 639 (84) |
| | | | | +1.13(15) | | | [106Pd 512] | TF | 1984Ba72 | NuoC 84A 106 (84) |
| 47 Ag 108 | 0 | 2.4 m | 1+ | 2.6884(7) | | | [8Li] | β -NMR | 1976Wi03 | NP A261 261 (76) |
| | 110 | 418 y | 6+ | 3.58(2) | | | [109Ag 88] | O | 1975Fi07 | ZP A274 79 (75) |
| | | | | | +1.32(7) | R | {110Ag 118} | O, R | 1984Be53 | PR C30 2026 (84) |
| | 215 | 46 ns | 3+ | +3.888(15) | | | [19F 197] | TDPAD, R | 1974Be47/1976Ha57 | NP A229 72 (74)/JPJa 41 1830 (76) |
| 47 Ag 109 | 0 | stable | 1/2- | 0.13056(2) | | | [107Ag] | N | 1954So05 | PR 93 174 (54) |
| | | | | -0.1306906(2) | | | [2H] | N | 1974Sa25 | ZNat 29a 1763 (74) |
| | 88 | 39.8 s | 7/2+ | +4.400(6) | | | {110Ag 118} | NMR/ON | 1985Ed01/1971St09 | PR C31 190 (85)/CJP 49 906 (71) |
| | | | | | (+)1.02(12) | R | {110Ag 118} | LMR, R | 1986Be01/1984Be53 | PR C33 390 (86)/PR C30 2026 (84) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|-------------|-------|------------|-------------|-------------|------------|--------------------------|-----------------------------------|
| | 311 | 5.9 ps | 3/2- | +0.99(15) | | | TF | 1986Ba14 | PR C33 1461 (86) |
| | | | | +1.2(2) | | [108Pd 434] | TF | 1984Wo08 | NP A427 639 (84) |
| | | | | +1.2(2) | | [106Pd 512] | TF | 1984Ba72 | NuoC 84A 106 (84) |
| | | | | | -0.7(3) | R | CER | 1972Th16 | PL 41B 585 (72) |
| | 415 | 35 ps | 5/2- | +0.73(15) | | | TF | 1986Ba14 | PR C33 1461 (86) |
| | | | | +0.90(13) | | [108Pd 434] | TF | 1984Wo08 | NP A427 639 (84) |
| | | | | +0.90(15) | | [106Pd 512] | TF | 1984Ba72 | NuoC 84A 106 (84) |
| | | | | | -0.3(3) | R | CER | 1972Th16 | PL 41B 585 (72) |
| 47 Ag 110 | 0 | 24.4 s | 1+ | 2.7271(8) | | [108Ag] | NMR/ON, AB | 1976Wi03 | NP A261 261 (76)/JP A2 658 (69) |
| | | | | | 0.24(12) | R | QIR | 1981Do17 | HFI 10 727 (81) |
| | 118 | 252 d | 6+ | 3.589(4) | | | BFNMR/ON | 1992Hu09 | HFI 73 247 (92) |
| | | | | +3.607(4) | | | AB/D | 1967Sc04 | PR 154 1142 (67) |
| | | | | | +1.44(10) | R | O, R | 1984Be53 | PR C30 2026 (84) |
| | 119 | 37 ns | 3+ | +3.77(3) | | [19F 197] | TDPAD | 1974Be47 | NP A229 72 (74)/JPJa 41 1830 (76) |
| 47 Ag 111 | 0 | 7.45 d | 1/2- | -0.146(2) | | [109Ag] | AB | 1956Wo** | PPS 69A 581 (56) |
| 47 Ag 112 | 0 | 3.14 h | 2(-) | 0.0547(5) | | [109Ag] | AB | 1964Ch06 | PR 133 B1138 (64) |
| 47 Ag 113 | 0 | 5.37 h | 1/2- | 0.159(2) | | [109Ag] | AB | 1964Ch06 | PR 133 B1138 (64) |
| 48 Cd 100 | 2548 | 73 ns | 8+ | 9.9(5) | | | TDPAD | 1992Al17 | ZP A344 1 (92) |
| 48 Cd 102 | 2718 | 56 ns | 8+ | 10.3(2) | | | TDPAD | 1992Al17 | ZP A344 1 (92) |
| | | | | | 0.76(9) | R | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.87(10) | | TDPAD | 1992Al17 | ZP A344 1 (92) |
| 48 Cd 103 | 0 | 7.3 m | 5/2+ | -0.81(3) | | [109Cd] | CLS | 1987Bu01 | NP A462 305 (87) |
| | | | | | -0.7(6) | R | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.8(7) | R | [109Cd] | 1987Bu01 | NP A462 305 (87) |
| 48 Cd 105 | 0 | 56 m | 5/2+ | -0.7393(2) | | [109Cd] | OD | 1969La06 | PR 177 1615 (69) |
| | | | | | +0.37(4) | R | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.43(4) | R | [109Cd] | 1969La06 | PR 177 1615 (69) |
| | 2517 | 4.5 μ s | 21/2+ | +9.17(6) | | | SOPAD | 1978Sp09 | HFI 4 229 (78) |
| | | | | | (+)1.02(10) | R | V | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | (+)1.17(12) | | TDPAD | 1978Sp09 | HFI 4 229 (78) |
| 48 Cd 106 | 633 | 7.3 ps | 2+ | +0.79(6) | | | TF | 2011Ch23 | PR C83 054318 (2011) |
| | | | | +0.8(2) | | [110Cd 658] | TF | 1980Br01 | PR C21 574 (80) |
| | | | | | -0.28(8) | R | CER | 1976Es02 | NP A274 237 (76) |
| | 4660 | 62 ns | 12+ | +8.9(2) | | | TDPAD, R | 1986Vo14 | YadF 44 849 (86) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | | | | |
|-----------|--------|--------------|------------|----------------|--------------|-------------|--------------------------|-----------------------------------|-----------------------------------|---------------------------------|---------------------------------|----------|-----------------------------------|-------------------------------|
| 48 Cd 107 | 0 | 6.50 h | 5/2+ | -0.6150554(11) | | [111Cd] | OP/RD,N,OD | 1972Sp09/1963By02 | PL 42A 273 (72)/PR 132 1181 (63) | | | | | |
| | | | | -0.6151(2) | | [109Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) | | | | | |
| | | | | | +0.60(2) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) | | | | |
| | | | | | +0.68(7) | | [109Cd] | OD, R | 1969La06 | PR 177 1615 (69) | | | | |
| | 846 | 70 ns | 11/2- | -1.041(11) | | [19F 197] | TDPAD | 1974Be17 | NP A222 399 (74) | | | | | |
| | | | | -1.11(2) | | | TDPAD | 1976LE13 | BRASP 40-1 41 (76) | | | | | |
| | 2679 | 56 ns | 21/2+ | +9.10(10) | | (-)0.94(10) | R | [109Cd 463] | TDPAD | 1978Sp09 | HFI 4 229 (78) | | | |
| | | | | | | +1.05(11) | R | [109Cd 463] | TDPAD | 1974Ha48 | PL 52B 329 (74) | | | |
| | | | | | | +1.21(13) | | [109Cd 463] | TDPAD | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | | | |
| | | | | | | | | | | 1978Sp09 | HFI 4 229 (78) | | | |
| 48 Cd 108 | 633 | 6.8 ps | 2+ | +0.78(6) | | | TF | 2011Ch23 | PR C83 054318 (2011) | | | | | |
| | | | | +0.7(2) | | [110Cd 658] | TF | 1980Br01 | PR C21 574 (80) | | | | | |
| | | | | | -0.45(8) | R | | CER | 1976Es02 | NP A274 237 (76) | | | | |
| 48 Cd 109 | 0 | 453 d | 5/2+ | -0.8278461(15) | | [111Cd] | OP/RD,N,OD | 1972Sp09/1963By02 | PL 42A 273 (72)/PR 132 1181 (63) | | | | | |
| | | | | | | +0.60(3) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) | | | |
| | 463 | 10.9 μ s | 11/2- | -1.096(2) | | | | OD, R | 1969La06 | PR 177 1615 (69) | | | | |
| | | | | | | -0.92(9) | | estimated | SOPAD | 1989Ra17 | Cf70HI 356 (70) | | | |
| 48 Cd 110 | 658 | 5.0 ps | 2+ | +0.81(6) | | | TF | 2011Ch23 | PR C83 054318 (2011) | | | | | |
| | | | | +0.57(11) | | | IPAC, R | 1980Br01 | PR C21 574 (80) | | | | | |
| | | | | +0.56(10) | | [111Cd 245] | IPAC | 1978Wa07 | PR C18 476 (78) | | | | | |
| | | | | 0.62(14) | | [109Pd 512] | RIGV | 1979LaZL | DisA 40 803B (79) | | | | | |
| | | | | | -0.40(4) | R | | ES | 1977GI13 | JP G3 L169 (77) | | | | |
| | | | | | -0.39(6) | | [114Cd 558] | CER | 1977Ma41 | JP G3 1735 (77) | | | | |
| | 3611 | 550 ps | 10+ | -0.9(3) | | -0.36(8) | | CER | 1976Es02 | NP A274 237 (76) | | | | |
| | | | | | | | | IMPAD | 1995Re15 | NP A591 533 (95) | | | | |
| | | | | | 48 Cd 111 | 0 | stable | 1/2+ | -0.5948861(8) | | [1H] | OP/RD, N | 1972Sp09/1950Pr51 | PL 42A 273 (72)/PR 79 35 (50) |
| | | | | | | | | | 0.595543(2) | | [2H] | N | 1974Ka04 | ZP 266 233 (74) |
| 245 | 84 ns | 5/2+ | -0.766(3) | | | | TDPAC | 1974Be51 | ZP 270 203 (74) | | | | | |
| | | | | | +0.77(12) st | | [117In 660] | TDPAC | 1973Ra02/1976Ra09 | PRL 30 10 (73)/PR B13 2835 (76) | | | | |
| | | | | | +0.80(10) | | [115Cd 173] | TDPAD | 1983Er01 | PL 93A 357 (83) | | | | |
| | | | | | +0.83(13) | | [111Cd 396] | TDPAD | 1980He02 | ZP A294 13 (80) | | | | |
| | | | | | (+)0.74(8) | | [109Cd 463] | TDPAD | 1978Sp09 | HFI 4 229 (78) | | | | |
| 342 | 27 ps | 3/2+ | 0.0(12) | | [110Cd 658] | TF | 1988Be45 | HFI 43 457 (88) | | | | | | |
| 396 | 48.6 m | 11/2- | -1.1052(3) | | | [115Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) | | | | | |
| | | | | | -1.1051(4) | | [109Cd] | OD | 1969La06 | PR 177 1615 (69) | | | | |
| | | | | | -0.75(3) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) | | | | |
| | | | | -0.85(9) | | [109Cd] | OD | 1969La06 | PR 177 1615 (69) | | | | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|-----|----------------------|-------|----------------|------------------------|-------------|----------|-----------------------------------|----------------------------------|-----------------------|
| | 620 | 10 ps | 5/2+ | +0.28(12) | | [110Cd 658] | TF | 1988Be45 | HFI 43 457 (88) | |
| 48 Cd 112 | 617 | 6.2 ps | 2+ | +0.72(5) | | | TF | 2011Ch23 | PR C83 054318 (2011) | |
| | | | | +0.6(2) | | [110Cd 658] | TF | 1980Br01 | PR C21 574 (80) | |
| | | | | 0.72(12) | | [106Pd 512] | RIGV | 1979La2L | DisA 40 803B (79) | |
| | | | | | -0.37(4) | | R | ES | 1977Gl13 | JP G3 L169 (77) |
| | | | | | -0.39(8) | [114Cd 558] | CER | 1977Ma41 | JP G3 1735 (77) | |
| | | | | | -0.39(11) | | CER | 1976Es02 | NP A274 237 (76) | |
| 48 Cd 113 | 0 | 9x10 ¹⁵ y | 1/2+ | -0.6223009(9) | | [111Cd] | OP/RD, N | 1972Sp09/1950Pr51 | PL 42A 273 (72)/PR 79 35 (50) | |
| | | | | -0.6224(2) | | [111Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) | |
| | 264 | 14 y | 11/2- | -1.087784(2) | | [111Cd] | OP/RD, N | 1969Ch07 | PL 29A 103 (69) | |
| | | | | -1.0883(3) | | [115Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) | |
| | | | | | -0.61(3) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | | | | | -0.71(7) | [109Cd] | OD, R | 1969La06 | PR 177 1615 (69) | |
| | 298 | 32 ps | 3/2+ | -0.4(8) | | | TF | 1988Be45 | HFI 43 457 (88) | |
| | 584 | 9 ps | 5/2+ | +0.15(12) | | | TF | 1988Be45 | HFI 43 457 (88) | |
| 48 Cd 114 | 558 | 9.0 ps | 2+ | +0.65(4) | | | TF | 2011Ch23 | PR C83 054318 (2011) | |
| | | | | +0.58(14) | | [110Cd 658] | TF | 1980Br01 | PR C21 574 (80) | |
| | | | | 0.60(8) | | [106Pd 512] | RIGV | 1979La2L | DisA 40 803B (79) | |
| | | | | | -0.35(5) | | CER | 1972La25/1976Es02 | NP A195 119(72)/NP A274 237 (76) | |
| | | | | | -0.348(12) | R | ES | 1981Ko06 | JP G7 L63 (81) | |
| | | | | | -0.38(4) | | ES | 1977Gl13 | JP G3 L169 (77) | |
| | | | | | -0.34(3) | | ES | 1976Li19 | PR C14 952 (76) | |
| 48 Cd 115 | 0 | 53.4 h | 1/2+ | -0.6484259(12) | | [111Cd] | OP/RD, N | 1969Ch07 | PL 29A 103 (69) | |
| | | | | -0.6483(2) | | [111Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) | |
| | 173 | 44.8 d | 11/2- | -1.0410343(15) | | [111Cd] | OP/RD, N | 1969Ch07 | PL 29A 103 (69) | |
| | | | | | -0.48(2) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | | | | | -0.54(5) | [113Cd 264] | OL | 1973Ge12 | PL 46A 211(73) | |
| 48 Cd 116 | 514 | 15 ps | 2+ | +0.59(5) | | | TF | n | PR C83 054318 (2011) | |
| | | | | +0.60(14) | | [110Cd 658] | TF | 1980Br01 | PR C21 574 (80) | |
| | | | | | -0.42(4) | R | ES | 1977Gl13 | JP G3 L169 (77) | |
| | | | | | -0.42(8) | | CER | 1976Es02 | NP A274 237 (76) | |
| | | | | | -0.64(12) or -0.46(12) | | CER | 1977Na06 | JP G3 507 (77) | |
| 48 Cd 117 | 0 | 2.49 h | 1/2+ | -0.7436(2) | | [111Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) | |
| | 136 | 3.36 h | 11/2- | -0.9975(4) | | [115Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) | |
| | | | | | -0.320(13) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| 48 Cd 119 | 0 | 2.69 m | 1/2+ | -0.9201(2) | | [111Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-----|--------|-------|------------------------------------|--------------|---|-------------|--------|--------------------------|---------------------------------|
| | 147 | 2.20 m | 11/2- | -0.9642(3) | | | [115Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | | | | | -0.135(6) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| 48 Cd 121 | 0 | 13.5 s | 3/2+ | +0.6269(7) | | | [111Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | | | | | -0.274(13) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | 215 | 8.3 s | 11/2- | -1.0100(4) | | | [115Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | | | | | +0.009(6) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| 48 Cd 123 | 0 | 2.10 s | 3/2+ | +0.7896(6) | | | [111Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | | | | | +0.042(5) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | 317 | 1.82 s | 11/2- | -1.0015(3) | | | [115Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | | | | | +0.135(7) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| 48 Cd 125 | 0 | 0.68 s | 3/2+ | +0.8603(6) | | | [111Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | | | | | +0.209(10) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | x | 0.48 s | 11/2- | -0.9347(2) | | | [115Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | | | | | +0.269(13) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| 48 Cd 127 | 0 | 0.37 s | 3/2+ | +0.8783(7) | | | [111Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | | | | | +0.239(11) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | x | - | 11/2- | -0.8702(3) | | | [115Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | | | | | +0.34(2) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| 48 Cd 129 | 0 | 0.27 s | 3/2+ | +0.8481(8) | | | [111Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | | | | | +0.132(9) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | x | - | 11/2- | -0.7063(5) | | | [115Cd] | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| | | | | | +0.57(3) | R | calc efg | CLS | 2013Yo02 | PRL 110 192501 (2013) |
| 49 In 104 | 0 | 1.7 m | 5+ | +4.44(2) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | +0.63(10) | R | [115In] | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.66(11) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| 49 In 105 | 0 | 5.07 m | 9/2+ | +5.675(5) 4.8(4) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | +0.79(5) | R | [115In] | NO/S | 1982Va21 | PRL 49 1390 (82) |
| | | | | | +0.83(5) st | | [115In] | CFBLS | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| 49 In 106 | 0 | 6.2 m | 7+ | +4.916(7) 4.921(13) 4.87(15) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | | | [115In] | NMR/ON | 1986Va27 | PRL 57 2641 (86) |
| | | | | | | | [115In] | NO/S | 1982Ya21 | PRL 49 1390 (82) |
| | | | | | +0.92(6) | R | [115In] | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.97(6) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-----|--------------|---------|-------------|--------------|--------------------------|----------------|--------------------------|--------------------------|---------------------------------|
| 49 In 107 | 0 | 32.4 min | 9/2+ | +5.585(8) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | 5.6(5) | | | | NO/S | 1982Ya21 | PRL 49 1390 (82) |
| | | | | | +0.77(5) | R | [115In] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.81(5) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| 49 In 108 | 0 | 58 m | 7+ | +4.561(3) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | 4.557(7) | | | | NMR/ON | 1986Va27 | PRL 57 2641 (86) |
| | | | | 4.53(10) | | | | NO/S | 1982Ya21 | PRL 49 1390 (82) |
| | | | | | +0.955(7) | R | [115In] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +1.005(7) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | 29 | 40 m | 2+ | +4.935(5) | | | [115In] | CFBLS | 1987Eb02 |
| | | | | | +0.444(14) | R | [115In] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.467(14) | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| 49 In 109 | 0 | 4.2 h | 9/2+ | +5.538(4) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | +5.538(11) | | | | NMR/ON | 1981Ha** | ZP A300 339 (81) |
| | | | | | +0.80(3) | R | [115In] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.84(3) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| 49 In 110 | 0* | 69.1 m | 2+ | +4.365(4) | | | [113In] | AB | 1968CaZX | Th Casserb (68) |
| | | | | | +0.32(2) | R | [115In] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.35(2) st | | [115In] | AB, R | 1968CaZX | Th Casserb (68) |
| | 0* | 4.9 h | 7+ | +4.713(8) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | 4.719(13) | | | | NMR/ON | 1981Ha** | ZP A300 339 (81) |
| | | | | | +0.95(2) | R | [115In] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | +1.00(2) | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) | |
| 49 In 111 | 0 | 2.83 d | 9/2+ | +5.503(7) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | 5.499(7) | | | | BFNMR/ON | 1982Nu01 | PRL 49 347 (82) |
| | | | | (+5.504(10) | | | | NMR/ON | 1981Ha45 | PR C24 2222 (81) |
| | | | | +5.48(10) | | | | NO/S | 1980Ha26 | HFI 8 41 (80) |
| | | | | | +0.76(2) | R | [115In] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | +0.80(2) | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) | | | |
| | | 2717 | 14.8 ns | 21/2+ | +5.3(2) | | | TDPAD | 1980Le05 | IzF 44 202 (80) |
| | | | | +4.9(2) | | | TDPAD | 1981Va15 | ZP A301 137 (81) | |
| 49 In 112 | 0* | 14.4 m | 1+ | +2.82(3) | | | [113In] | AB | 1968CaZX | Th68 Casserb (68) |
| | | | | | +0.082(5) | R | [115In] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.087(5) | | [115In] | AB, R | 1968CaZX | Th68 Casserb (68) |
| | 157 | 20.9 m | 4+ | +5.227(4) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | +0.679(10) | R | [115In] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.714(10) | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | 351 | 0.69 μ s | 7+ | +4.73(4) | | | TDPAD | 1976Io04 | NP A272 1 (76) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-----|------------------------|------|-------------|---------------|---|-------------|----------|-----------------------------------|-----------------------------------|
| | | | | | 1.00(3) | R | [117In 660] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 1.03(3) | | [117In 660] | TDPAD | 1993Io02 | HFI 77 111 (93) |
| | 614 | 2.82 μ s | 8- | +3.08(3) | | | | TDPAD | 1976Io04 | NP A272 1 (76) |
| | | | | | 0.092(3) | R | [117In 660] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.095(3) | | [117In 660] | TDPAD | 1993Io02 | HFI 77 111 (93) |
| | | | | | 0.086(3) st | | [117In 660] | TDPAD | 1976Io02 | PL 64B 36 (76) |
| 49 In 113 | 0 | stable | 9/2+ | +5.5289(2) | | | [115In] | N | 1957Ri42 | PR 106 953 (57) |
| | | | | | 0.759(8) | R | calc efg | AB/MS | 2008Py02 | Mol Phys 106 1965 (2008) |
| | | | | | +0.80(4) st | | [115In] | AB | 1987Eb02 | NP A464 9 (87) |
| | 392 | 99.5 m | 1/2- | -0.21074(2) | | | [115In] | AB | 1960Ch08 | PR 118 1578 (60) |
| 49 In 114 | 0 | 71.9 s | 1+ | 2.817(11) | | | | NMR/ON | 1982Nu02 | PR C26 1701 (82) |
| | 190 | 49.5 d | 5+ | +4.653(5) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | 4.658(7) | | | | NMR/ON | 1979La20 | CERN 81-09 26 (81)/HFI 7 61 (79) |
| | | | | 4.66(3) | | | | BFNO | 1981Nu03 | HFI 10 1195 (81) |
| | | | | +4.72(10) | | | | NMR/ON | 1983De54 | HFI 15 31 (83) |
| | | | | | +0.703(11) | R | [115In] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.739(12) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| 49 In 115 | 0 | 4.4x10 ¹⁴ y | 9/2+ | +5.5408 (2) | | | [1H] | N | 1960Fi03 | PPS 76 301 (60) |
| | | | | | +0.770(8) | R | calc efg | AB/MS | 2008Py02 | Mol Phys 106 1965 (2008) |
| | | | | | +0.81(5) st | | | ABLFS, R | 1984Be18 | ZP A316 15 (84) |
| | | | | | 0.8(2) st | | | ABLFS | 1982Ji01 | ZP A306 7 (82) |
| | | | | | 0.83(10) a | | | Pi-X | 1981Ba07 | NP A355 383 (81) |
| | | | | | 0.58(9) a | | | Ka-X | 1981Ba07 | NP A355 383 (81) |
| | 336 | 4.49 h | 1/2- | -0.24398(5) | | | [115In] | AB | 1962Ca14 | CJP 40 931 (62) |
| | 829 | 5.78 ns | 3/2+ | +0.74(13) | | | | IPAC | 1974Ba24 | NP A222 168 (74) |
| | | | | | -0.59(4) | R | [117In 660] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.60(2) st | | [117In 660] | TDPAC | 1975Ra30/1973Ha61 | PR C12 2022 (75)/JCP 58 3339 (73) |
| | | | | | | | | | 1976Ch37 | ZP B34 177 (76) |
| 49 In 116 | 0 | 14.1 s | 1+ | 2.7876(6) | | | | NMR/ON | 1972La22/1971Wi12 | ZP 252 242 (72)/ZP 244 289 (71) |
| | | | | | 0.11(1) | R | [115In] | QIR | 1982Gr17 | NP A386 56 (82) |
| | | | | | 0.09(2) | | | QIR | 1971Wi12 | ZP 244 289 (71) |
| | 127 | 54.2 m | 5+ | +4.435(15) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | +0.762(11) | R | [115In] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.802(12) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | 290 | 2.18 s | 8- | +3.215(11) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | +0.295(9) | R | [115In] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.310(9) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| 49 In 117 | 0 | 42 m | 9/2+ | +5.519(4) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | R | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|------|-------------|---------------|---|-------------|---------|-----------------------------------|-----------------------------------|
| | | | | | +0.788(10) | R | [115In] | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.829(10) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | 315 | 1.93 h | 1/2- | -0.25174(3) | | | [115In] | AB | 1962Ca14 | CJP 40 931 (62) |
| | 589 | < 10 ps | 3/2- | > 0.84 | | | [115In] | IPAC, R | 1986Bo36/1985AI05 | ZP A325 475 (86)/ZP A320 425 (85) |
| | 660 | 53.6 ns | 3/2+ | +0.938(10) | | | [115In] | TDPAC | 1976Pi18 | Pram 7 190 (76) |
| | | | | +0.910(10) | | | [115In] | TDPAC | 1983De54 | HFI 15 31 (83) |
| | | | | | -0.57(4) | R | [115In] | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | (-).059(1) st | | [115In] | TDPAC | 1972Ra27/1973Ha61 | PRL 28 54 (72)/JCP 58 3339 (73) |
| 49 In 118 | ~60 | 4.45 m | 5+ | +4.231(9) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | +0.757(8) | R | [115In] | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.796(8) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | ~200 | 8.5 s | 8- | +3.321(11) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | +0.419(7) | R | [115In] | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.441(7) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| 49 In 119 | 0 | 2.4 m | 9/2+ | +5.515(10) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | +0.812(7) | R | [115In] | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.854(7) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | 315 | 18 m | 1/2- | -0.319(5) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | 654 | 130 ns | 3/2+ | +0.53(3) | | | [115In] | TDPAD | 1980HaYW | ARHMI 75 (79) |
| | | | | | 0.59(4) | R | [115In] | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.60(2) | | [115In] | TDPAD | 1980HaYW | ARHMI 75 (79) |
| 49 In 120 | (0) | 44.4 s | 5+ | +4.295(5) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | +0.770(16) | R | [115In] | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.81(2) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | (0) | 47.3 s | 8- | +3.692(4) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | +0.504(10) | R | [115In] | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.530(10) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| 49 In 121 | 0 | 23.1 s | 9/2+ | +5.502(5) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | +0.774(10) | R | [115In] | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.814(11) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | 314 | 3.8 m | 1/2- | -0.355(4) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| 49 In 122 | 0+x | 9.2 s | 5+ | +4.318(5) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | +0.77(2) | R | [115In] | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.81(2) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | ~220 | 10.5s | 8- | +3.781(6) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | +0.56(2) | R | [115In] | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.59(2) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-----|--------|--------|------------|---------------------------|---------------------------|--------------------|--|--|---|
| 49 In 123 | 0 | 6.68 s | 9/2+ | +5.491(7) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | | | | | | |
| | | | | | | +0.720(9) +0.757(9) st | R | [115In] [115In] | 2013StZZ 1987Eb02 | IAEA Rept INDC(NDS)-0650 (2013) NP A464 9 (87) |
| | 327 | 45.9 s | 1/2- | -0.400(4) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| 49 In 124 | 0 | 3.09 s | 3+ | +4.043(11) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | | | | | | |
| | | | | | | +0.58(7) +0.61(7) st | R | [115In] [115In] | 2013StZZ 1987Eb02 | IAEA Rept INDC(NDS)-0650 (2013) NP A464 9 (87) |
| | | 190 | 3.7 s | 8- | +3.888(9) | | | [115In] | CFBLS | 1987Eb02 |
| | | | | | +0.631(9) +0.664(9) st | R | [115In] [115In] | 2013StZZ 1987Eb02 | IAEA Rept INDC(NDS)-0650 (2013) NP A464 9 (87) | |
| 49 In 125 | 0 | 2.50 s | 9/2+ | +5.502(9) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | | | | | | |
| | | | | | | +0.68(3) +0.71(4) st | R | [115In] [115In] | 2013StZZ 1987Eb02 | IAEA Rept INDC(NDS)-0650 (2013) NP A464 9 (87) |
| | 360 | 12.2 s | 1/2- | -0.433(4) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| 49 In 126 | (0) | 1.60 s | 3+ | +4.034(11) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| | | | | | | | | | | |
| | | | | | | +0.47(5) +0.49(5) st | R | [115In] [115In] | 2013StZZ 1987Eb02 | IAEA Rept INDC(NDS)-0650 (2013) NP A464 9 (87) |
| | | (0) | 1.64 s | 8- | +4.061(4) | | | [115In] | CFBLS | 1987Eb02 |
| | | | | | +0.649(11) +0.683(12) | R | [115In] [115In] | 2013StZZ 1987Eb02 | IAEA Rept INDC(NDS)-0650 (2013) NP A464 9 (87) | |
| 49 In 127 | 0 | 1.22 s | 9/2+ | +5.522(8) | | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | R | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|-------|------------|-------------|---|--------------|--------|-----------------------------------|----------------------------------|
| | | | | | +0.56(3) | R | [115In] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.59(3) st | | [115In] | CFBLS | 1987Eb02 | NP A464 9 (87) |
| 50 Sn 108 | 2365 | 7.3 ns | 6+ | -0.24(12) | | | | TFL | 1983Ha37 | NP A410 317 (83) |
| | 3561 | 71 ps | 8+ | >0.8 | | | | TFL | 1983Ha37 | NP A410 317 (83) |
| 50 Sn 109 | 0 | 18.0 m | 5/2+ | -1.079(6) | | | [119Sn] | CFBLS | 1987Eb01 | ZP A326 121 (87) |
| | | | | | +0.33(11) | R | [117Sn 315] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.31(10) | | | CFBLS | 1987Eb01 | ZP A326 121 (87) |
| 50 Sn 110 | 2480 | 5.6 ns | 6+ | +0.07(3) | | | | TDPAD | 1989Vo17 | BRASP 53 (11) 133 (89) |
| | | | | | 0.30(4) | R | [118Sn 3106] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.34(4) | | | TDPAD | 1989Vo17 | BRASP 53 (11) 133 (89) |
| | 3767 | 1.15 ns | 8- | -2.4(12) | | | | TDPAD | 1989Vo17 | BRASP 53 (11) 133 (89) |
| 50 Sn 111 | 0 | 35 m | 7/2+ | +0.608(4) | | | [119Sn] | CFBLS | 1987Eb01 | ZP A326 121 (87) |
| | | | | +0.617(8) | | | [115,7,9Sn] | ABLFS | 1986An24 | PR C34 1052 (86) |
| | | | | | +0.20(10) | R | [117Sn 315] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.18(9) | | | CFBLS | 1987Eb01 | ZP A326 121 (87) |
| | 979 | 9.2 ns | 11/2- | -1.26(11) | | | | TDPAD | 1974Br29 | PR C10 1414 (74) |
| 50 Sn 112 | 1257 | 0.35 ps | 2+ | +0.21(7) | | | | TF | 2011Wa15 | PR C84 014319 (11) |
| | | | | +0.7(3) | | | | TF | 1980Ha19 | PR C22 97 (80) |
| | | | | | -0.09(10) | R | | CER | 1975Gr30 | PR C12 1462 (75) |
| | 2248 | 3.3 ps | 4+ | +1.5(7) | | | | TF | 2011Wa15 | PR C84 014319 (11) |
| | 2550 | 13.7 ns | 6+ | +0.53(3) | | | | TDPAD | 1983Le18 | YadF 37 1342 (83) |
| | | | | +0.61(5) | | | | | 1981Go17 | IzF 45 2116 (81) |
| | | | | +0.2(2) | | | | | 1981Va15 | ZP A301 137 (81) |
| | | | | | (-)0.25(5) | R | [118Sn 739] | TDPAD | 1975Vi03 | NP A243 29 (75) |
| | | | | | 0.29(7) | | | TDPAD | | ChJNP 6 188 (84) |
| 50 Sn 113 | 0 | 115 d | 1/2+ | -0.8791(6) | | | [115,7,9Sn] | ABLFS | 1986An24 | PR C34 1052 (86) |
| | 739 | 82 ns | 11/2- | -1.30(2) | | | | TDPAD | 1981Go17 | IzF 45 2116 (81) |
| | | | | -1.29(2) | | | | TDPAD | 1974Di18/1974Br29 | ZP 271 103 (74)/PR C10 1414 (74) |
| | | | | | (-)0.41(4) | R | [116Sn 3548] | TDPAD | 1975Di02 | PL 55B 293 (75) |
| | | | | | 0.48(5) | | [118Sn 3108] | TDPAD | 1976Be59 | HFI 2 326 (76) |
| 50 Sn 114 | 1300 | 0.28 ps | 2+ | +0.22(5) | | | | TF | 2011Wa15 | PR C84 014319 (11) |
| | 2188 | 5.3 ps | 4+ | +0.4(3) | | | | TF | 2011Wa15 | PR C84 014319 (11) |
| | 2354 | 0.36 ps | 3- | -1.5(7) | | | | TF | 2011Wa15 | PR C84 014319 (11) |
| | 3088 | 765 ns | 7- | -0.567(4) | | | | TDPAD | 1973IsZQ | Cf73Mun 1 256 (73) |
| | | | | | (-)0.32(3) | R | [116Sn 3548] | TDPAD | 1975Di02 | PL 55B 293 (75) |
| | | | | | 0.36(4) | | [118Sn 3108] | TDPAD | 1976Be59 | HFI 2 326 (76) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|--------------|-------------|------------|-------------|--------------|--------------|--------------------------|-----------------------------------|-----------------------------------|---|
| 50 Sn 115 | 0 | stable | 1/2+ | -0.91883(7) | | [23Na] | N | 1950Pr51 | PR 79 35 (50) | |
| | 613 | 3.26 ps | 7/2+ | +0.683(10) | | | TDPAD | 1975lv02 | RRou 20 141 (75) | |
| | | | | | (-)0.26(3) | R | [118Sn 3108] | TDPAD | 1976Be59 | HFI 2 326 (76) |
| | 714 | 159 μ s | 11/2- | -1.378(11) | | | TDPAD | 1975lv02 | RRou 20 141 (75) | |
| | | | | -1.369(4) | | | NMR/AC | 1971Br03 | PL 34B 54 (71) | |
| | | | | | 0.38(6) | R | QIR | 1975Ri03 | PS 11 228 (75) | |
| 50 Sn 116 | 1294 | 0.36 ps | 2+ | +0.01(4) | | | TF | 2011Wa15 | PR C84 014319 (11) | |
| | | | | -0.3(5) | | | TF | 2008EA02 | PL B665 147 (08) | |
| | | | | -0.3(2) | | | TF | 1980Ha19 | PR C22 97 (80) | |
| | | | | | -0.17(4) | R | ES | 1976Li19 | PR C14 952 (76) | |
| | | | | | +0.08(8) | | CER | 1975Gr30/1970K106 | PR C12 1462 (75)/NP A154 499 (70) | |
| | 2266 | 0.33 ps | 3- | -0.0(7) | | | TF | 2011Wa15 | PR C84 014319 (2011) | |
| | 2366 | 370 ns | 5- | -0.376(3) | | | TDPAD | 1973IsZQ | Cf73Mun 1 256 (73) | |
| | | | | | 0.26(3) | R | [116Sn 3548] | TDPAD | 1975Di02 | PL 55B 293 (75) |
| | | | | 0.28(3) | | [118Sn 3108] | TDPAD | 1976Be59 | HFI 2 326 (76) | |
| 3548 | 904 ns | 10+ | -2.326(15) | | | TDPAD | 1973IsZQ | Cf73Mun 1 256 (73) | | |
| | | | | | [(-)0.41(4)] | | Est from B(E2) | 1975Di02 | PL 55B 293 (75) | |
| 50 Sn 117 | 0 | stable | 1/2+ | -1.00104(7) | | [23Na] | N | 1950Pr51 | PR 79 35 (50) | |
| | 159 | 279 ps | 3/2+ | +0.66(5) | | | IPAC | 1086Bo31 | ZP A325 281 (86) | |
| | 315 | 13.6 d | 11/2- | -1.3955(10) | | [115,7,9Sn] | ABLFS | 1986An24 | PR C34 1052 (86) | |
| | | | | | -0.42(5) | R | ABLFS | 1986An24 | PR C34 1052 (86) | |
| 50 Sn 118 | 1230 | 0.46 ps | 2+ | +0.34(20) | | | TF | 2008EA02 | PL B665 147 (08) | |
| | | | | +0.04(20) | | | TF | 1980Ha19 | PR C22 97 (80) | |
| | | | | | -0.14(10) | | CER | 1975Gr30 | PR C12 1462 (75) | |
| | 2321 | 21.7 ns | 5- | -0.30(3) | | | TDPAC | 1964DeZZ | Bk64 PAC 186 (64) | |
| | | | | -0.34(4) | | | IPAC | 1962Bo16 | ZP 168 370 (62) | |
| | | | | | (-)0.22(3) | R | [116Sn 3548] | TDPAD | 1975Di02 | PL 55B 293 (75) |
| | 2575 | 217 ns | 7- | -0.689(4) | | | TDPAD | 1973IsZQ | Cf73Mun 1 256 (73) | |
| | | | | | 0.32(3) | R | [118Sn 3108] | TDPAD | 1976Be59 | HFI 2 326 (76) |
| 3106 | 2.65 μ s | 10+ | -2.447(7) | | | TDPAD | 1973IsZQ | Cf73Mun 1 256 (73) | | |
| | | | | | [0.41(4)] | | Est from B(E2) | 1976Be59 | HFI 2 326 (76) | |
| 50 Sn 119 | 0 | stable | 1/2+ | -1.04728(7) | | [23Na] | N | 1950Pr51 | PR 79 35 (50) | |
| | 24 | 17.8 ns | 3/2+ | +0.633(3) | | [119Sn] | ME | 1973Cr01 | ZP 258 56 (73) | |
| | | | | +0.682(3) | | | ME | | PA 81 3771 (78) | |
| | | | | | -0.132(1) | R | | calc efg | 2008Py02/2008Ba56 | Mol Phys 106 1956 (2008)/JPC A112 1666 (2008) |
| | | | | | -0.112(7) | | | ME | 2006MA35 | Eur J Phys B51 173 (06) |
| | | | | -0.105(2) | | | [calc efg] | 2000LI53 | HFI 126 137 (00) | |
| | | | | 0.128(7) | | | R | 1997Sv03 | PR B55 12572 (97) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|-------|-------------|-----------|---------------|--------|-----------------------------------|--------------------------------|
| | | | | | -0.109(8) | | ME | 1983Ha50 | HFI 15/16 215 (83) |
| | | | | | 0.094(11) | [116Sn 3548] | TDPAD | 1975Di02 | PL 55B 293 (75) |
| | | | | | -0.065(5) | | ME, R | 1972Mi02/1967Ru05 | PR B5 1704(72)/PR 159 239 (67) |
| | | | | | -0.061(3) | | ME, R | 1987Gr28 | JP B20 5595 (87) |
| | 90 | 293.1 d | 11/2- | -1.40(8) | | | ME | 1972Gu09 | PL 40A 297 (72) |
| | | | | | -0.29(3) | R [119Sn 24] | ME, R | 1975Di02 | PL 55B 293 (75) |
| 50 Sn 120 | 1171 | 0.64 ps | 2+ | -0.18(14) | | | TF | 2008EA02 | PL B665 147 (08) |
| | | | | -0.28(14) | | | TF | 1980Ha19 | PR C22 97 (80) |
| | | | | | +0.02(7) | R | CER | 1992Vo09 | NP A549 281 (92) |
| | | | | | -0.05(10) | | CER | 1975Gr30 | PR C12 1462 (75) |
| | 2285 | 5.53 ns | 5- | -0.28(3) | | | TDPAC | 1964DeZZ | Bk64 PAC 186 (64) |
| | | | | -0.37(5) | | | IPAC | 1962Bo16 | ZP 168 370 (62) |
| | | | | | 0.046(2) | R [119Sn 24] | TDPAD | 1975Di02 | PL 55B 293 (75) |
| 50 Sn 121 | 0 | 27.1 h | 3/2+ | +0.6978(10) | | [115,7,9Sn] | ABLFS | 1986An24 | PR C34 1052 (86) |
| | | | | | -0.02(2) | R | ABLFS | 1986An24 | PR C34 1052 (86) |
| | 6.3 | 55 y | 11/2- | -1.3877(9) | | [119Sn] | ABLFS | 1986An24 | PR C34 1052 (86) |
| | | | | | -0.14(3) | R | ABLFS | 1986An24 | PR C34 1052 (86) |
| 50 Sn 122 | 1140 | 0.76 ps | 2+ | -0.09(4) | | | TF | 2011Wa15 | PR C84 014319 (11) |
| | | | | -0.1(2) | | | TF | 1980Ha19 | PR C22 97 (80) |
| | | | | | -0.13(10) | R | CER | 1975Gr30 | PR C12 1462 (75) |
| | 2142 | 1.6 ps | 4+ | -0.7(7) | | | TF | 2011Wa15 | PR C84 014319 (11) |
| 50 Sn 123 | 0 | 129 d | 11/2- | -1.3700(9) | | [115,7,9Sn] | ABLFS | 1986An24 | PR C34 1052 (86) |
| | | | | | +0.03(4) | R | ABLFS | 1986An24 | PR C34 1052 (86) |
| 50 Sn 124 | 1132 | 0.93 ps | 2+ | (-)0.21(3) | | | RIV | 2013Al10 | PR C87 054325 (2013) |
| | | | | -0.13(3) | | | TF | 2011Wa15 | PR C84 014319 (11) |
| | | | | -0.3(2) | | | TF | 1980Ha19 | PR C22 97 (80) |
| | | | | | +0.03(13) | R | CER | 2011Al35 | PR C84 061303@ |
| | | | | | 0.0(2) | | CER | 1975Gr30 | PR C12 1462 (75) |
| 50 Sn 125 | 0 | 9.62 d | 11/2- | -1.348(2) | | [115,7,9Sn] | ABLFS | 1986An24 | PR C34 1052 (86) |
| | | | | -1.348(6) | | | ABLFS | 2005Le34 | PR C72 034305 (05) |
| | | | | | +0.2(2) | R [117Sn 315] | ABLFS | 2004Le13 | NP A734 437 (04) |
| | | | | | +0.1(2) | | ABLFS | 1986An24 | PR C34 1052 (86) |
| | 28 | 9.5 m | 3/2+ | +0.764(3) | | | ABLFS | 2005Le34 | PR C72 034305 (05) |
| | | | | | +0.86(8) | R [117Sn 315] | ABLFS | 2004Le13 | NP A734 437 (04) |
| 50 Sn 126 | 1141 | 1.15 ps | 2+ | (-)0.24(6) | | | RIV | 2013Al10 | PR C87 054325 (2013) |
| | | | | -0.5(4) | | | TF | 2012Ku24 | PR C86 034319 (12) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | R | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|-------------|--------|-------------|-------------|---|-------------|--------------|-----------------------------------|---------------------------------|
| | 2219 | 5.9 ms | 7- | -0.69(6) | 0.0(2) | R | | CER | 2011AI35 | PR C84 061303@ |
| | | | | | | | | TDPAD | 2010IL01 | PL B687 305 (10) |
| 50 Sn 127 | 0 | 2.1 h | 11/2- | -1.329(7) | | | | ABLFS | 2005Le34 | PR C72 034305 (05) |
| | | | | | +0.32(14) | R | [117Sn 315] | ABLFS | 2005Le34 | PR C72 034305 (05) |
| | 5 | 4.13 m | 3/2+ | +0.757(4) | | | | ABLFS | 2005Le34 | PR C72 034305 (05) |
| | | | | | +0.65(7) | R | [117Sn 315] | ABLFS | 2004Le13 | NP A734 437 (04) |
| | 1827 | 4.5 μ s | (19/2) | -1.6(2) | | | | TDPAD | 2010AT03 | Eur Phys Lett 91 42001 (10) |
| 50 Sn 128 | 1169 | 1.6 ps | 2+ | (-)0.46(12) | | | | RIV | 2013AI10 | PR C87 054325 (2013) |
| | 2492 | 2.7 μ s | 10+ | -2.0(4) | | | | TDPAD | 2010AT03 | Eur Phys Lett 91 42001 (10) |
| | | | | | -0.1(3) | R | | CER | 2011AI35 | PR C84 061303 |
| 50 Sn 129 | 0 | 2.23 m | 3/2+ | +0.754(3) | | | | ABLFS | 2005Le34 | PR C72 034305 (05) |
| | | | | | +0.05(11) | R | [117Sn 315] | ABLFS | 2004Le13 | NP A734 437 (04) |
| | 35 | 6.9 m | 11/2- | -1.297(5) | | | | ABLFS | 2005Le34 | PR C72 034305 (05) |
| | | | | | -0.2(2) | R | [117Sn 315] | ABLFS | 2005Le34 | PR C72 034305 (05) |
| 50 Sn 130 | 1947 | 1.7 m | 7- | -0.381(3) | | | | ABLFS | 2005Le34 | PR C72 034305 (05) |
| | | | | | -0.39(12) | R | [117Sn 315] | ABLFS | 2005Le34 | PR C72 034305 (05) |
| 50 Sn 131 | 0 | 56 s | 3/2+ | +0.747(4) | | | | ABLFS | 2005Le34 | PR C72 034305 (05) |
| | | | | | -0.04(9) | R | [117Sn 315] | ABLFS | 2004Le13 | NP A734 437 (2004) |
| | 242 | 58.4 s | 11/2- | -1.276(5) | | | | ABLFS | 2005Le34 | PR C72 034305 (05) |
| | | | | | 0.0(2) | R | [117Sn 315] | ABLFS | 2005Le34 | PR C72 034305 (05) |
| 51 Sb 112 | 796 | 536 ns | 8- | +2.192(8) | | | | TDPAD | 1976Ke07 | HFI 2 336 (76) |
| | | | | | 1.06(2) | R | | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.71(7) st | | [121Sb] | TDPAD | 1982Ma29 | PR C26 493 (82) |
| 51 Sb 114 | 0 | 3.49 m | 3+ | 1.72(8) | | | | NO/S | 1993Bo46 | HFI 78 133 (93) |
| | 496 | 219 μ s | 8- | +2.265(5) | | | | SOPAD, TDPAD | 1976Ke07/1976Br40 | HFI 2 336 (76)/HFI 2 329 (76) |
| | | | | | 1.02(6) | R | [121Sb] | | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.66(11) st | | [121Sb] | QIR, R | 1982Ma29 | PR C26 493 (82) |
| 51 Sb 115 | 0 | 31.8 m | 5/2+ | +3.46(1) | | | [121Sb] | AB | 1968Ja05 | PR 175 65 (68) |
| | 1300 | 8.4 ns | 11/2- | +5.53(8) | | | | TDPAD | 1980Le05 | IzF 44 202 (80) |
| | | | | +5.8(6) | | | | TDPAD | 1979Fa03 | PR C19 720 (79) |
| | | | | +5.3(6) | | | | TDPAD | 1978Ke04 | ZP A285 177 (78) |
| | 2796 | 152 ns | 19/2- | +2.54(4) | | | | TDPAD, R | 1980Le05 | IzF 44 202 (80) |
| | | | | +2.73(4) | | | | TDPAD | 1979Fa03 | PR C19 720 (79) |
| | | | | +2.76(5) | | | | TDPAD | 1979Sh03 | PR C19 1324 (79) |
| | | | | +2.68(6) | | | | TDPAD | 1979Ko02 | ZP A289 287 (79) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | R | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|--------------|---------|------------|-------------|---|-------------|---------------|--------------------------|----------------------------------|
| | | | | | 0.79(4) | R | [121Sb] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.52(6) st | | [121Sb] | TDPAD | 1983Se04 | ZP A309 349 (83) |
| | | | | | 0.49(14) st | | [121Sb] | TDPAD | 1982Ma29 | PR C26 493 (82) |
| 51 Sb 116 | 0 | 16 m | 3+ | 2.715(9) | | | [121,123Sb] | NMR/ON | 1986Gr16 | PL 177B 159 (86) |
| | 94 | 194 ns | 1+ | +2.47(9) | | | | TDPAD | 1993Di06 | ZP A347 37 (93) |
| | 383 | 60.3 m | 8+ | 2.59(22) | | | | NO/S | 1993Bo46 | HFI 78 133 (93) |
| | 1844 | 11.9 ns | 7+ | +4.69(10) | | | | TDPAD | 1992Io01 | ZP A343 21 (92) |
| | | | | | 2.5(6) | R | [112Sb 796] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 1.7(4) | | [112Sb 796] | TDPAD | 1992Io01 | ZP A343 21 (92) |
| 51 Sb 117 | 0 | 2.80 h | 5/2+ | +3.43(6) | | | [121Sb] | AB | 1974Ek01 | NP A226 219 (74) |
| | | | | | 0.2(12) | | [121Sb] | AB, R | 1974Ek01 | NP A226 219 (74) |
| | 1323 | 3.8 ns | 11/2- | +5.35(9) | | | | TDPAD, R | 1980Le05 | IzF 44 202 (80) |
| | | | | +5.6(4) | | | | TDPAD | 1978Ke04 | ZP A285 177 (78) |
| | 3131 | 340 μ s | (25/2)+ | +1.500(9) | | | | NMR/ON, TDPAD | 1975Iv02 | RRou 20 141 (75) |
| | | | | | 1.14(5) | R | [121Sb] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.75(9) st | | [121Sb] | QIR, R | 1982Ma29 | PR C26 493 (82)/JP G3 713 (77) |
| | 3231 | 290 ns | 23/2- | +5.03(6) | | | | TDPAD | 1987Io01 | NP A466 317 (87) |
| | | | | | 3.7(4) | R | [121Sb] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 2.5(3) st | | [112Sb 796] | TDPAD | 1988Io01 | PL 200B 259 (88) |
| 51 Sb 118 | 0 | 3.6 m | 1+ | 2.47(7) | | | [121Sb] | AB | 1968Ja05 | PR 175 65 (68) |
| | 51 | 20.6 μ s | (3)+ | +2.63(5) | | | [115Sb 714] | TDPAD | 1975Pi04 | PL 57B 235 (75) |
| | | | | | 0.9(2) | R | [121Sb] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.57(14) st | | [121Sb] | QIR, R | 1982Ma29 | PR C26 493 (82)/Th Dimmling (77) |
| | 212 | 5.0 h | 8- | 2.32(4) | | | [122Sb] | NMR/ON | 1974Ca06 | NP A221 1 (74) |
| | 270 | 13.4 ns | 3- | -3.76(9) | | | | TDPAD | 1985Di07 | ZP A320 613 (85) |
| | | | | | 0.39(8) | R | [112Sb 796] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.25(5) st | | [112Sb 796] | TDPAD | 1985Di07 | ZP A320 613 (85) |
| | 927 | 22.8 ns | 7+ | +4.76(13) | | | | TDPAD | 1985Di07 | ZP A320 613 (85) |
| | | | | | 2.6(5) | R | [112Sb 796] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 1.8(3) st | | [112Sb 796] | TDPAD | 1988Io01 | PL 200B 259 (88) |
| 51 Sb 119 | 0 | 38.0 h | 5/2+ | +3.45(1) | | | [121Sb] | AB | 1968Ja05 | PR 175 65 (68) |
| | 2554 | 128 ns | 19/2- | +3.14(6) | | | | TDPAC | 1991Io02 | NP A531 112 (91) |
| | | | | | 3.18(10) | R | [112Sb 796] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 2.1(2) | | [112Sb 796] | TDPAC | 91Io02 | NP A531 112 (91) |
| 51 Sb 120 | *0* | 15.9 m | 1+ | 2.3(2) | | | [121Sb] | AB | 1968Ja05 | PR 175 65 (68) |
| | *0* | 5.76 d | 8- | 2.34(1) | | | [122Sb] | NMR/ON | 1974Ca06 | NP A221 1 (74) |
| | 78 | 247 ns | 3+ | +2.584(6) | | | | TDPAD | 1976Io03 | PL 64B 151 (76) |
| | | | | | 0.63(2) | R | [121Sb] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-----|--------------|------|------------|--------------|-------------|--------|-----------------------------------|---------------------------------|
| | | | | | 0.41(4) st | [121Sb] | TDPAD | 1982Ma29 | PR C26 493 (82) |
| 51 Sb 121 | 0 | stable | 5/2+ | +3.3634(3) | | [23Na] | N | 1951Pr02 | PR 81 20 (51) |
| | | | | | -0.543(11) | [121Sb] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.36(4) st | | O | 1978Bu24 | ZP A288 247 (78) |
| | | | | | -0.45(3) st | | AB, R | 1976De22 | APPo A49 541 (76) |
| | 37 | 3.5 ns | 7/2+ | +2.518(7) | | [121Sb] | ME | 1976La09 | PR C13 2589 (76) |
| | | | | | -0.727(16) | [121Sb] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.48(5) st | [121Sb] | ME | 1970St13 | PL 32A 91 (70) |
| 51 Sb 122 | 0 | 2.68 d | 2- | -1.90(2) | | [121,123Sb] | NO/D | 1958Pi45 | PR 112 935 (58) |
| | | | | | +1.28(8) | [121Sb] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.85(11) st | [121Sb] | AB | 1960Fe08 | PhMg 5 1309 (60) |
| | | | | | +0.9(2) | [121Sb] | NO/S | 1985He16 | ZP A322 281 (85) |
| | 61 | 1.86 μ s | 3+ | +2.983(12) | | | SOPAD | 1973He10 | PR C7 2128 (73) |
| | | | | | +0.63(2) | [121Sb] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.41(4) st | [121Sb] | TDPAD | 1982Ma29 | PR C26 493 (82) |
| | 137 | 530 μ s | 5+ | +3.05(10) | | | TDPAD | 1977Co18 | RRou 22 541 (77) |
| 51 Sb 123 | 0 | stable | 7/2+ | +2.5498(2) | | [2H] | N | 1951Pr02 | PR 81 20 (51) |
| | | | | | -0.692(14) | [121Sb] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.49(5) st | | O | 1978Bu24 | ZP A288 247 (78) |
| 51 Sb 124 | 0 | 60.2 d | 3- | 1.20(2) | | [122Sb] | NMR/ON | 1974Ca06 | NP A221 1 (74) |
| | | | | | +2.8(2) | [121Sb] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +1.9(4) st | [121Sb] | NO/S | 1985He16 | ZP A322 281 (85) |
| | 41 | 3.2 μ s | 3+ | +2.97(3) | | | TDPAD | 1981Io04 | HFI 9 75 (81) |
| | 125 | 86 ns | 6- | +0.384(12) | | | TDPAD | 1981Io04 | HFI 9 75 (81) |
| 51 Sb 125 | 0 | 2.7 y | 7/2+ | +2.63(4) | | [122Sb] | NMR/ON | 1974Ca06 | NP A221 1 (74) |
| 51 Sb 126 | 0 | 12.4 d | (8)- | 1.28(7) | | | NO/S | 1972Kr15 | PR C6 2268 (72) |
| 51 Sb 127 | 0 | 3.84 d | 7/2+ | 2.697(6) | | [123Sb] | NMR/ON | 1996Li01 | PR C53 124 (96) |
| | | | | | 2.59(12) | | NO/S | 1972Kr15 | PR C6 2268 (72) |
| 51 Sb 128 | 0 | 9.1 h | 8- | 1.3(2) | | | NO/S | 1972Kr15 | PR C6 2268 (72) |
| 51 Sb 129 | 0 | 4.4 h | 7/2+ | 2.79(2) | | [123Sb] | NMR/ON | 1997St06/1996Li01 | PR C53 124 (96) |
| 51 Sb 131 | 0 | 23 m | 7/2+ | 2.89(1) | | [123Sb] | NMR/ON | 1997St06 | PRL 78 820 (97) |
| 51 Sb 133 | 0 | 2.5 m | 7/2+ | 3.00(1) | | [123Sb] | NMR/ON | 1997St06 | PRL 78 820 (97) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | |
|-----------|-----|-----------------------|----------|---------------|------|-------------|--------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------------|
| 52 Te 115 | 280 | 7.5 μ s | 11/2- | -0.954(5) | | | TDPAD | 1977MiZL | DisA 37 4025B (77) | | |
| | | | | -1.02(4) | | | TDPAD | 1972Va38 | PL 42B 54 (72) | | |
| 52 Te 117 | 274 | 19.1 ns | 5/2+ | -0.787(12) | | | TDPAD | 1981Io07 | HFI 9 71 (81) | | |
| | | | | -0.75(5) | | | TDPAD | 1981Ha11 | ZP A299 251 (81) | | |
| 52 Te 119 | 0 | 16.1 h | 1/2+ | 0.25(5) | | | AB | 1965Ad03 | ArkF 30 111 (65) | | |
| | 300 | 4.68 d | 11/2- | 0.894(6) | | [125Te 36] | NMR/ON | 1987Ni11 | PR C36 2069 (87) | | |
| | 320 | 2.2 ns | 5/2+ | -0.9(2) | | | IPAD | 1989Ra17 | Cf86Bang A4 (86) | | |
| 52 Te 120 | 560 | 9.3 ps | 2+ | +0.78(14) | | | TF | 1985ThZX | BAPS 30 1264 (85) | | |
| | | | | +0.58(6) | | | TF | 1981Sh15 | PR C24 954 (81) | | |
| 52 Te 121 | 294 | 154 d | 11/2- | 0.895(10) | | [125Te 36] | NMR/ON | 1987Ni11 | PR C36 2069 (87) | | |
| | | | | +0.738(10) | | | TDPAD | 1980Io01 | PL 90B 65 (80) | | |
| | 443 | 83.5 ns | 7/2+ | +0.774(11) | | | TDPAD | 1989Ra17 | Cf86Bang A4 (86) | | |
| | | | | +0.63(7) | | | TDPAD | 1981Ha11 | ZP A299 251 (81) | | |
| 52 Te 122 | 564 | 7.52 ps | 2+ | +0.72(9) | | | TF | 2007ST24 | PR C76 034306 (07) | | |
| | | | | +0.66(4) | | | TF | 1988Du10 | PR C37 2881 (88) | | |
| | | | | +0.68(4) | | | TF | 1985ThZX | BAPS 30 1264 (85) | | |
| | | | | +0.72(4) | | | IPAC, R | 1988Du10 | PR C37 2881 (88) | | |
| | | | | +0.66(6) | | | TF | 1981Sh15 | PR C24 954 (81) | | |
| | | | | +0.56(10) | | | TF | 1985Gr17 | IzF 49 2137 (85) | | |
| | | | | | | | -0.57(5) | R | CER | 1978Be10 | PR C17 628 (78) |
| | | | | | | | -0.50(5) | | CER, R | 1978Be10 | PR C17 628 (78) |
| 52 Te 123 | 0 | >1x10 ¹⁵ y | 1/2+ | -0.7369478(8) | | [125Te] | N | 1977Bu29/1953We51 | ZNat 32a 1263 (77)/PR 89 923 (53) | | |
| | 159 | 0.2 ns | 3/2+ | 0.72(12) | | | IPAC | 1970Ro31 | ZP A240 396 (70) | | |
| | 247 | 119.7 d | 11/2- | -0.927(8) | | [125Te 36] | NMR/ON | 1987Ni11/1973Si26 | PR C36 2097 (87)/NP A210 307 (73) | | |
| | | | | +0.5(2) | | | TF | 1988Be45 | HFI 43 457 (88) | | |
| | 440 | 27 ps | 3/2+ | +0.51(9) | | | IMPAC | 1974Ro40 | NP A236 165 (74) | | |
| | | | | +0.787(14) | | | TDPAD | 1981Io07/1981Io05 | HFI 9 71 (81)/RRou 26 239 (81) | | |
| | 506 | 18 ps | 5/2+ | +0.1(2) | | | TF | 1988Be45 | HFI 43 457 (88) | | |
| | | | +0.10(6) | | | IMPAC | 1974Ro40 | NP A236 165 (74) | | | |
| 52 Te 124 | 603 | 6.25 ps | 2+ | +0.74(6) | | | TF | 2007ST24 | PR C76 034306 (07) | | |
| | | | | +0.56(6) | | | IPAC, R | 1988Du10 | PR C37 2881 (88) | | |
| | | | | +0.66(6) | | | TF | 1985ThZX | BAPS 30 1264 (85) | | |
| | | | | +0.62(8) | | | TF | 1988Du10 | PR C37 2881 (88) | | |
| | | | | +0.52(6) | | | TF | 1981Sh15 | PR C24 954 (81) | | |
| | | | | | | | | R | CER | 1974Ba45/1974La05 | PR C10 1166(74)/NP A221 26 (74) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|-------|----------------|-------------|-------------|---------|-----------------------------------|-----------------------------------|
| | | | | | | | | 1975KI07 | NP A248 342 (75) |
| 52 Te 125 | 0 | stable | 1/2+ | -0.8885051(4) | | [2H] | N | 1977Bu29 | ZNat 32a 1263 (77) |
| | | | | -0.8884509(10) | | [23Na] | | 1977Bu29/1953We51 | ZNat 32a 1263 (77)/PR 89 923 (53) |
| | 36 | 1.48 ns | 3/2+ | +0.605(4) | | [125Te] | ME | 1975Bo51 | PL 54A 293 (75) |
| | | | | | -0.31(2) | [129I] | ME | 1977La03 | PR B15 2504 (77) |
| | 145 | 58 d | 11/2- | -0.985(6) | | [125Te 36] | NMR/ON | 1980Ge02 | PR C21 439 (80) |
| | | | | | 0.0(2) | [129Te] | CLS | 2006SI40 | HFI 171 173 (06) |
| | | | | | -0.06(2) | | NO/ME | 1987Be36 | HFI 35 1023 (87) |
| | 321 | 695 ps | 9/2- | -0.92(3) | | | IPAC | 1970Cr07 | NP A154 369 (70) |
| | | | | | 0.12(+5,-9) | [125Te 36] | IPAC | 1976Va28 | HFI 2 321 (76) |
| | 443 | 19 ps | 3/2+ | +0.93(9) | | | TF | 2009CH59 | PR C80 054301 (09) |
| | | | | +1.0(3) | | | TF | 2007ST24 | PR C76 034306 (07) |
| | | | | +0.7(2) | | | TF | 1988Be45 | HFI 43 457 (88) |
| | | | | +0.59(9) | | | IMPAC | 1974Ro40 | NP A236 165 (74) |
| | 463 | 13 ps | 5/2+ | +0.50(6) | | | TF | 2009CH59 | PR C80 054301 (09) |
| | | | | +0.9(2) | | | TF | 2007ST24 | PR C76 034306 (07) |
| | | | | +0.50(12) | | | TF | 1988Be45 | HFI 43 457 (88) |
| | | | | +0.8(2) | | | TF | 1985Gr17 | IzF 49 2137 (85) |
| | 526 | <160 ps | 7/2- | <0 | | | IPAC | 1971Ro17 | NP A170 240 (71) |
| | 672 | 1.3 ps | 5/2+ | -0.1(7) | | | TF | 2009CH59 | PR C80 054301 (09) |
| | | | | -0.6(7) | | | TF | 1988Be45 | HFI 43 457 (88) |
| 52 Te 126 | 666 | 4.41 ps | 2+ | +0.67(3) | | | TF | 2007ST24 | PR C76 034306 (07) |
| | | | | +0.62(8) | | | TF | 1988Du10 | PR C37 2881 (88) |
| | | | | +0.68(6) | | | TF | 1985ThZX | BAPS 30 1264 (85) |
| | | | | +0.38(6) | | | TF | 1981Sh15 | PR C24 954 (81) |
| | | | | | -0.23(5) | R | CER | 1976Bo12 | NP A261 498 (1976) |
| | | | | | -0.20(9) | | CER | 1975Ra24 | NP A250 333 (75) |
| | 2975 | 10.6 ns | 10+ | -1.52(9) | | | TDPAD | 1983Go02 | YadF 37 257 (83) |
| 52 Te 127 | 0 | 9.4 h | 3/2+ | 0.635(4) | | [125Te 36] | NMR/ON | 1979Ge04 | PR C20 1171 (79) |
| | 88 | 109 d | 11/2- | -1.041(6) | | [125Te 36] | NMR/ON | 1980Ge02 | PR C21 439 (80) |
| | | | | | +0.17(12) | R | [129Te] | CLS | 2006SI40 |
| | 341 | 411 ps | 9/2- | -0.96(6) | | | IPAC | 1974So03 | NP A224 358 (74) |
| | | | | -0.98(15) | | | IPAC | 1985De04 | PR C31 593 (85) |
| 52 Te 128 | 743 | 3.2 ps | 2+ | +0.63(3) | | | TF | 2007ST24 | PR C76 034306 (07) |
| | | | | +0.50(6) | | | TF | 1988Du10 | PR C37 2881 (88) |
| | | | | +0.70(8) | | | TF | 1985ThZX | BAPS 30 1264 (85) |
| | | | | +0.62(8) | | | TF | 1981Sh15 | PR C24 954 (81) |
| | | | | | -0.22(5) | R | CER | 1976Bo12 | NP A261 498 (1976) |
| | | | | | -0.06(5) | | CER | 1978Be10 | PR C17 628 (78) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|------------|--------|--------------|-----------|-------------|----------|--------------------------|--------------------|
| | | | | | -0.14(12) | | CER, R | 1978Be10 | PR C17 628 (78) |
| 52 Te 129 | 0 | 69.5 m | 3/2+ | 0.702(4) | | [125Te 36] | NMR/ON | 1979Ge04 | PR C20 1171 (79) |
| | | | | | 0.055(13) | R | NO/ME | 1987Be36 | HFI 35 1023 (87) |
| | 106 | 33.5 d | 11/2- | -1.091(7) | | [125Te 36] | NMR/ON | 1979Ge04 | PR C20 1171 (79) |
| | | | | -1.10(3) | | | CLS | 2006SI40 | HFI 171 173 (06) |
| | | | | | +0.40(3) | R | calc efg | 2006SI40 | HFI 171 173 (06) |
| 52 Te 130 | 840 | 2.3 ps | 2+ | +0.70(4) | | | TF | 2007ST24 | PR C76 034306 (07) |
| | | | | +0.58(10) | | | TF | 1988Du10 | PR C37 2881 (88) |
| | | | | +0.66(16) | | | TF | 1985Gr17 | IzF 49 2137 (85) |
| | | | | +0.58(12) | | | TF | 1981Sh15 | PR C24 954 (81) |
| | | | | | -0.12(5) | | CER | 1976Bo12 | NP A261 498 (76) |
| 52 Te 131 | 0 | 25 m | 3/2+ | 0.696(9) | | [125Te 36] | NMR/ON | 1979Ge04 | PR C20 1171 (79) |
| | 182 | 30 h | 11/2- | -1.04(4) | | | NO/S | 1975Lh01 | PR C12 609 (75) |
| | | | | (-)1.123(7) | | | NMR/ON | 1998Wh05 | NP A640 322 (98) |
| | | | | -1.20(14) | | | CLS | 2006SI40 | HFI 171 173 (06) |
| | | | | | +0.25(14) | R | [129Te] | 2006SI40 | HFI 171 173 (06) |
| 52 Te 132 | 974 | 1.8 ps | 2+ | +0.6(3) | | | TF | 2008BE14 | PL B664 241 (08) |
| | | | | (+)0.70(10) | | | RIV | 2005ST18 | PRL 94 192501 (05) |
| | 1775 | 145 ns | 6+ | +4.7(5) | | | TDPAC | 1986Fo02 | NP A451 104 (86) |
| 52 Te 133 | 0 | 12.5 m | 3/2+ | +0.85(2) | | | CLS | 2006SI40 | HFI 171 173 (06) |
| | | | | | +0.23(9) | R | [129Te] | 2006SI40 | HFI 171 173 (06) |
| | 334 | 55.4 m | 11/2- | (-) 1.129(7) | | | NMR/ON | 1998Wh05 | NP A640 322 (98) |
| | | | | 1.15(9) | | | CLS | 2006SI40 | HFI 171 173 (06) |
| | | | | | +0.28(14) | R | [129Te] | 2006SI40 | HFI 171 173 (06) |
| 52 Te 134 | 1576 | 1.96(6) ns | 4+ | 3(2) | | | IPAC | 2008GO28 | PR C78 044331 (08) |
| | 1691 | 163 ns | 6+ | +5.08(15) | | | FDPAC | 1976Wo03 | PRL 36 1072 (76) |
| 52 Te 135 | 0 | 19 s | 7/2- | -0.69(5) | | | CLS | 2006SI40 | HFI 171 173 (06) |
| | | | | | +0.29(9) | R | [129Te] | 2006SI40 | HFI 171 173 (06) |
| | 1555 | 510 ns | 19/2- | -3.8(4) | | | FDPAC | - | Cf83Gron NP13 (83) |
| 53 I 117 | 0 | 2.22 m | (5/2)+ | 3.1(2) | | [131,132] | NO/S | 1986Gr06 | PL 173B 115 (86) |
| 53 I 118 | 0 | 13.7 m | 2- | 2.0(2) | | [131,132] | NO/S | 1986Gr06 | PL 173B 115 (86) |
| | 104 | 8.5 m | (7-) | 4.2(2) | | [131,132] | NO/S | 1986Gr06 | PL 173B 115 (86) |
| 53 I 119 | 0 | 19 m | 5/2+ | (+)2.9(1) | | [131,132] | NO/S | 1986Gr06 | PL 173B 115 (86) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|----------|------|-----------------------|---------|-------------|--------------|-------------|---------|-----------------------------------|-----------------------------------|
| | 307 | 35 ns | 9/2+ | +5.40(14) | | | TDPAD | 1982Da17 | NP A383 421 (82) |
| | | | | +5.5(4) | | | TDPAD | 1982Ga21 | PR C26 1101 (82) |
| 53 I 120 | 0 | 1.4 h | 2- | 1.23(3) | | [131,132] | NO/S | 1986Gr06 | PL 173B 115 (86) |
| | ~930 | 53 m | (7-) | 4.2(2) | | [131,132] | NO/S | 1986Gr06 | PL 173B 115 (86) |
| 53 I 121 | 0 | 2.1 h | 5/2- | 2.3(1) | | [131,132] | NO/S | 1986Gr06 | PL 173B 115 (86) |
| | 2353 | 80 ns | (21/2+) | +12.6(11) | | | TDPAD | 1982Ha46 | NP A389 341 (82) |
| 53 I 122 | 0 | 3.63 m | 1+ | 0.94(3) | | [131,132] | NO/S | 1986Gr06 | PL 173B 115 (86) |
| | | | | +ve sign | | | NO/S | 1988As06 | HFI 43 489 (88) |
| 53 I 123 | 0 | 13.3 h | 5/2+ | 2.818(7) | | [131] | NMR/ON | 1979Sc13 | NP A323 1 (79) |
| | 2660 | 29 ns | 21/2+ | +10.9(9) | | | TDPAD | | Cf83Gron NP14 (83) |
| 53 I 124 | 0 | 4.18 d | 2- | 1.446(4) | | | NMR/ON | 1992Oh01 | PR C45 162 (92) |
| 53 I 125 | 0 | 60.2 d | 5/2+ | 2.821(5) | | [131] | NMR/ON | 1979Sc13 | NP A323 1 (79) |
| | | | | | -0.761(17) | R | | 2013StZz | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.776(17) | | MA, R | 1958Fi39 | PR 110 536 (58)/PR B61 13588 (00) |
| | 188 | 0.35 ns | 3/2+ | +1.06(7) | | [127] | IPAC | 1973Ka37 | ZP 265 65 (73) |
| 53 I 126 | 0 | 13.1 d | 2- | 1.438(4) | | | NMR/ON | 1992Oh01 | PR C45 162 (92) |
| | 111 | 56 ns | unknown | -2.24(2) | | | TDPAD | | PC75 Block (75) |
| 53 I 127 | 0 | stable | 5/2+ | +2.81327(8) | | [1H] | N, O | 1951Ya03/1939Sc16 | PR 82 750 (51)/ZP 112 199 (39) |
| | | | | | -0.696(12) | R | | 2008Py02 | Mol Phys 106 1965 (2008) |
| | | | | | 0.72(2) | | R | 2004Al08 | |
| | | | | | -0.710(10) | | R | 2001Bi17 | PR A64 052507 (01) |
| | | | | | (-)0.689(15) | | R | 2000HA64 | PR B61 13588 (00) |
| | | | | | -0.789 e | | AB/R | 1976Fu06 | JPCR 5 835 (76) |
| | 58 | 1.95 ns | 7/2+ | +2.54(5) | | [127] | ME | 1972Wo13 | PR C6 228 (72) |
| | | | | | -0.624(11) | R | | 2013StZz | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.636(9) | | R | 2001Bi17 | PR A64 052507 (01) |
| | | | | | -0.60(3) | | ME | 1987Gr28 | JP B20 5595 (87) |
| | | | | | -0.62(2) | [127] | ME, R | 1964Pe15/2000Ha64 | PL 13 198 (64)/PR B61 13588 (00) |
| | 203 | 0.388ns | 3/2+ | +0.97(7) | | | IPAC, R | 1976Le23 | HPAc 49 661 (76) |
| 53 I 128 | 138 | 845 ns | 4- | -0.72(3) | | | R | 1982Al10 | IzF 46 52 (82) |
| 53 I 129 | 0 | 1.6x10 ⁷ y | 7/2+ | +2.6210(3) | | [2H] | N | 1951Wa12 | PR 82 97 (51) |
| | | | | | -0.488(8) | R | | 2013StZz | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.498(7) | | R | 2001Bi17 | PR A64 052507 (01) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|----------|---------|---------------|-------------|-------------|-----------|-----------------------------------|------------------------------------|
| | 28 | 16.8 ns | 5/2+ | +2.805(3) | -0.482(10) | [127] | Q, MA, R | 1953Li16/2000Ha64 | PR 90 609 (53)/PR B61 13588 (00) |
| | | | | | | [129] | ME | 1981De35 | PL 106B 457 (79) |
| | | | | | -0.604(10) | R | [127] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.616(9) | | R | 2001Bi17 | PR A64 052507 (01) |
| | | | | | -0.598(13) | [129] | ME, R | 1972Ro41/2000Ha64 | NIM 105 509 (72)/PR B61 13588 (00) |
| | | | | | -0.42(2) | | ME | 1987Gr28 | JP B20 5595 (87) |
| 53 I 130 | 0 | 12.36 h | 5+ | 3.349(7) | | | NMR/ON | 1992Oh01 | PR C45 162 (92) |
| | 203 | 229 ns | -5 | -0.24(2) | | | TDPAD | 1989Ra17 | PC75 Bloch (75) |
| 53 I 131 | 0 | 8.04 d | 7/2+ | +2.742(1) | | [127] | AB | 1960Li13 | PR 119 2022 (60) |
| | | | | | -0.34(2) | R | [127] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.35(2) | | AB, R | 1960Li13/2000Ha64 | PR 119 2022 (60)/PR B61 13588 (00) |
| | 150 | 0.95 ns | 5/2+ | +2.8(5) | | | IPAC | 1967Ta07 | NP A102 203 (67) |
| | 1797 | 5.9 ns | (15/2)- | -1.2(4) | | | IPAC | 1967Ta07 | NP A102 203 (67) |
| | | | | | 0.66(6) | R | [129] 28] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.65(4) | | TDPAC, R | 1973Ha61/2000Ha64 | JCP 58 3339 (73)/PR B61 13588 (00) |
| 53 I 132 | 0 | 2.28 h | 4+ | 3.088(7) | | [127] | AB | 1960Wh06 | BAPS 5 504 (60) |
| | | | | | 0.08(1) | R | [127] | AB, R | 1960Wh06/2000Ha64 |
| | 50 | 1.12 ns | 3+ | +2.06(18) | | | TDPAC | 2009TA23 | PR C80 034304 (09) |
| | | | | +2.2(3) | | | IPAC | 1969Si06 | NP A132 221 (69) |
| | | | | | 0.20(6) | R | [129] | IPAC, R | 1979Oo01/2000Ha64 |
| | 278 | 1.42 ns | 1+ | +1.88(11) | | [129] | TDPAC | 1979Oo01 | NP A321 180 (79)/PR B61 13588 (00) |
| | | | | | -0.150(5) | R | [129] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | (-)0.148(6) | | TDPAC, R | 1979Oo01/2000Ha64 | NP A321 180 (79)/PR B61 13588 (00) |
| 53 I 133 | 0 | 20.9 h | 7/2+ | +2.856(5) | | [127] | AB | 1961Al20 | UCRL 9850 (61) |
| | | | | | -0.23(1) | R | [127] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.24(1) | | AB, R | 1961Al20/2000Ha64 | UCRL 9850 (61)/PR B61 13588 (00) |
| 53 I 135 | 0 | 6.57 h | 7/2+ | (+)2.940(2) | | | NMR/ON | 1998Wh04 | NP A644 277 (98) |
| | | est 2 ns | 15/2+ | >6 | | | IPAC | 2008GO28 | PR C78 044331 (08) |
| 54 Xe 117 | 0 | 1.02 m | 5/2+ | -0.5938(15) d | | [129Xe] | CFBLS | 1990NeZY | PC Neugart (90) |
| | | | | | +1.14(4) | R | [131Xe] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +1.16(4) | | CFBLS | 1990NeZY | PC Neugart (90) |
| 54 Xe 119 | 0 | 5.8 m | 5/2+ | -0.6542(15) d | | [129Xe] | CFBLS | 1990NeZY | PC Neugart (90) |
| | | | | -0.59(6) | | | NO/S | 1986ShZM | Cf86Dubr, 658 (86) |
| | | | | | +1.29(5) | R | [131Xe] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +1.31(5) | | CFBLS | 1990NeZY | PC Neugart (90) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | |
|-----------|-------|---------|-------------|---------------|------------------------|-------------|--------------------------|-----------------------------------|----------------------------------|---------------------------------|--------------------------|
| 54 Xe 121 | 0 | 39 m | 5/2+ | -0.701(3) d | | [129Xe] | CFBLS | 1990NeZY | PC Neugart (90) | | |
| | | | | -0.65(3) | | | NO/S | 1986ShZM | Cf86Dubr 658 (86) | | |
| | | | | | +1.31(5) | R | [131Xe] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | | |
| | | | | +1.33(5) | | [131Xe] | CFBLS | 1990NeZY | PC Neugart (90) | | |
| 54 Xe 123 | 0 | 2.00 h | 1/2+ | -0.150(3) d | | [129Xe] | CFBLS | 1990NeZY | PC Neugart (90) | | |
| | | 180+x | 5.2 μ s | 7/2(-) | -0.902(7) | | | TDPAD | 1982Ze05 | ZP A308 227 (82) | |
| | | | | | | 1.4(3) | R | [125Xe 296] | TDPAD | 1982Ze05 | ZP A308 227 (82) |
| | 201+x | 17 ns | 9/2- | | 1.1(6) | R | [123Xe 180+x] | TDPAD | 1982Ze05 | ZP A308 227 (82) | |
| 54 Xe 124 | 354 | 56 ps | 2+ | +0.46(4) | | [132Xe 668] | IMPAC | 1975Go18 | PR C12 628 (75) | | |
| 54 Xe 125 | 0 | 17.1 h | 1/2+ | -0.269(3) d | | [129Xe] | CFBLS | 1990NeZY | PC Neugart (90) | | |
| | | 253 | 57 s | 9/2- | -0.7453(8) d | | [129Xe] | CFBLS | 1990NeZY | PC Neugart (90) | |
| | | | | | | +0.417(15) | R | [131Xe] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | |
| | | | | +0.424(15) | | [131Xe] | CFBLS | 1990NeZY | PC Neugart (90) | | |
| | 296 | 140 ns | 7/2+ | +0.93(4) | | | TDPAD | 1983Al21 | ZP A314 17 (83) | | |
| | | | | | model estimate 1.40(5) | | - | 1983Al21 | ZP A314 17 (83) | | |
| 54 Xe 126 | 389 | 41.2 ps | 2+ | +0.74(14) | | | IPAC | 1977Ar19 | HFI 5 81 (77) | | |
| | | | | +0.54(8) | | [132Xe 668] | IMPAC | 1975Go18 | PR C12 628 (75) | | |
| 54 Xe 127 | 0 | 36.4 d | 1/2+ | -0.5033(11) d | | [129Xe] | CFBLS | 1990NeZY | PC Neugart (90) | | |
| | | | | | | | LRS | 1989Ra17 | Cf82OakR 183 (82) | | |
| | | | | 297 | 1.15 m | 9/2- | -0.8844(10) d | | [129Xe] | CFBLS | 1990NeZY |
| | | | | +0.68(2) | R | [131Xe] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | | | |
| | | | | +0.69(2) | | [131Xe] | CFBLS | 1990NeZY | PC Neugart (90) | | |
| | 342 | 37 ns | 7/2+ | +0.85(3) | | | TDPAD | 1984Lo07 | ZP A317 215 (84) | | |
| 54 Xe 128 | 443 | 21.4 ps | 2+ | +0.82(14) | | [126Xe 389] | IMPAC | 1977Ar19 | HFI 5 81 (77) | | |
| | | | | +0.62(6) | | [132Xe 668] | IMPAC | 1975Go18 | PR C12 628 (75) | | |
| | | | | 2787 | 83 ns | 8- | -0.29(7) | | | TDPAD | 1984Lo07 |
| 54 Xe 129 | 0 | stable | 1/2+ | -0.777976(8) | | [2H] | N | 1968Br12 | HPAc 41 367 (68) | | |
| | | 40 | 0.98 ns | 3/2+ | +0.58(8) | | [129Xe] | ME | 1974VaYZ | JPCo 35 C6-301 (74) | |
| | | | | | | -0.393(10) | R | [131Xe] | 2001Ke15 | CPL 346 155 (01) | |
| | | | | | | -0.41(4) | | [131Xe] | ME | 1964Pe06 | PR 135 B1102 (64) |
| | | 236 | 8.89 d | 11/2- | -0.8906(12) d | | [129Xe] | CFBLS | 1990NeZY | PC Neugart (90) | |
| | | | | -0.891223(4) | | [131Xe 164] | N, OP/RD, NO/S | 1986Ki16/1974Si07 | PR C34 1974 (86)/ZP 267 145 (74) | | |
| | | | | 0.8911(5) | | [133Xe] | NMR/ON | 1987Ed01 | ZP A326 255 (87) | | |
| | | | | +0.63(2) | R | [131Xe] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | | | |
| | | | | +0.64(2) | | [131Xe] | CFBLS | 1990NeZY | PC Neugart (90) | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | |
|-----------|--------|---------|------------|---------------|-------------|--------------|--------------------------|--------------------------|---------------------------------|-----------------------------------|----------------------------------|
| 54 Xe 130 | 538 | 10.0 ps | 2+ | +0.67(2) | | | TF | 2002Ja02 | PR C65 024316 2002 | | |
| | | | | +0.76(14) | | [126Xe 389] | IMPAC | 1977Ar19 | HFI 5 81 (77) | | |
| | | | | +0.62(8) | | [132Xe 668] | IMPAC | 1975Go18 | PR C12 628 (75) | | |
| | 1122 | 4.6 ps | 2+ | +0.9(2) | | | TF | 2002Ja02 | PR C65 024316 2002 | | |
| | 1205 | 2.4 ps | 4+ | +1.7(2) | | | TF | 2002Ja02 | PR C65 024316 2002 | | |
| | 2972 | 5.17 ns | 10+ | -2.05(14) | | | TDPAD | 1983Go02 | YadF 37 257 (83) | | |
| | | | | -1.6(2) | | | IPAD | 1985Ku15 | PR C30 820 (84) | | |
| 54 Xe 131 | 0 | stable | 3/2+ | +0.6915(2) d | | [129Xe] | CFBLS | 1990NeZY | PC Neugart (90) | | |
| | | | | +0.691862(4) | | [2H] | N | 1968Br12 | HPAc 41 367 (68) | | |
| | | | | | -0.114(1) | R | [calc efg] | R | 2001Ke15 | CPL 346 155 (01) | |
| | | | | | -0.117(6) | | [calc efg] | R, CFBLS | 2000Pa02 | JP B33 303 (00) | |
| | | | | | -0.116(4) | | | CFBLS | 1989Bo03 | PL B216 7 (89) | |
| | | | | | -0.120(12) | | AB | 1961Fa05 | PR 123 198 (61) | | |
| | 164 | 11.8 d | 11/2- | | -0.994(2) d | | [129Xe] | CFBLS | 1990NeZY | PC Neugart (90) | |
| | | | | | 0.9940(5) | | [133Xe] | NMR/ON | 1987Ed01 | ZP A326 255 (87) | |
| | | | | | | -0.994048(6) | | | N, OP/RD, NO/S | 1986Ki16/1974Si07 | PR C34 1974 (86)/ZP 267 145 (74) |
| | | | | | | +0.72(30) | R | [131Xe] | | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.73(3) | | [131Xe] | CFBLS | 1990NeZY | PC Neugart (90) | |
| 54 Xe 132 | 668 | 4.9 ps | 2+ | +0.63(2) | | | TF | 2002Ja02 | PR C65 024316 2002 | | |
| | | | | +0.70(7) | | | TF, R | 2002Ja02 | PR C65 024316 2002 | | |
| | | | | +0.74(10) | | [126Xe 389] | IMPAC | 1977Ar19 | HFI 5 81 (77) | | |
| | | | | +0.78(10) | | | IPAC, R | 1975Go18 | PR C12 628 (75) | | |
| | 1298 | 3.0 ps | 2+ | +0.2(4) | | | TF | 2002Ja02 | PR C65 024316 2002 | | |
| | 1440 | 1.8 ps | 4+ | +2.4(4) | | | TF | 2002Ja02 | PR C65 024316 2002 | | |
| | 2214 | 90 ns | 7- | -0.06(3) | | | TDPAD | 1986Vo14 | YadF 44 849 (86) | | |
| | | | | | 0.010(5) | R | TDPAD | 1987Le31 | UkrF 32 1636 (87) | | |
| 2753 | 8.4 ms | 10+ | (-)1.95(5) | | | TDPAD | 1976Ha50 | ZP A278 303 (76) | | | |
| 54 Xe 133 | 0 | 5.24 d | 3/2+ | +0.8129(5) d | | [129Xe] | CFBLS | 1990NeZY | PC Neugart (90) | | |
| | | | | +0.81340(7) | | [131Xe 164] | N, OP/RD | 1986Ki16 | PR C34 1974 (86) | | |
| | | | | 0.81(1) | | | NMR/ON | | Bk86 LTNO 953 (86) | | |
| | | | | +0.8125(3) | | [129,131Xe] | LRS | | Cf82OakR 183 (82) | | |
| | | | | +0.81(1) | | [131Xe] | O | 1978Hu04 | ZP A285 229 (78) | | |
| | | | | | 0.80(10) | | NO/S | 1974Si07 | ZP 267 145 (74) | | |
| | | | | | +0.140(5) | R | [131Xe] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | | |
| | | | | | +0.142(5) | | [131Xe] | CFBLS | 1990NeZY | PC Neugart (90) | |
| | | | | | +0.145(14) | | [131Xe] | LRS | Cf82OakR 183 (82) | | |
| | | | | | +0.12(4) | | [131Xe] | O | 1978Hu04 | ZP A285 229 (78) | |
| 233 | 2.19 d | 11/2- | | -1.0825(13) d | | [129Xe] | CFBLS | 1990NeZY | PC Neugart (90) | | |
| | | | | | +0.76(5) | R | [131Xe] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | | |
| | | | | | +0.77(3) | | [131Xe] | CFBLS | 1990NeZY | PC Neugart (90) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|------|----------|-------|---------------|-----------|-------------|--------------------------|---------------------------------|---------------------------------|---------------------------------|
| 54 Xe 134 | 847 | 1.9 ps | 2+ | +0.708(14) | | | TF | 2002Ja02 | PR C65 024316 2002 | |
| | | | | 1.1(2) | | [132Xe 668] | TF | 1993Sp01 | NP A552 140 (93) | |
| | 1731 | 2.2 ps | 4+ | +3.2(6) | | | TF | 2002Ja02 | PR C65 024316 2002 | |
| 54 Xe 135 | 0 | 9.10 h | 3/2+ | +0.9032(7) d | | [129Xe] | CFBLS | 1990NeZY | PC Neugart (90) | |
| | | | | 0.9031(2) | | [131Xe 164] | N, OP/RD | 1987CaZU | BAPS 32 1563 (87) | |
| | | | | | +0.210(7) | R | [131Xe] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | |
| | | | | | +0.214(7) | | [131Xe] | CFBLS | 1990NeZY | PC Neugart (90) |
| | 527 | 15.3 m | 11/2- | -1.1036(14) d | | [129Xe] | CFBLS | 1990NeZY | PC Neugart (90) | |
| | | | | 1.1030(2) | | [131Xe 164] | N, OP/RD | 1987CaZU | BAPS 32 1563 (87) | |
| | | | | +0.61(2) | R | [131Xe] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | | |
| | | | | +0.62(2) | | [131Xe] | CFBLS | 1990NeZY | PC Neugart (90) | |
| 54 Xe 136 | 1313 | 0.21 ps | 2+ | +1.53(9) | | | TF | 2002Ja02 | PR C65 024316 2002 | |
| | | | | 2.4(5) | | [132Xe 668] | TF | 1993Sp01 | NP A552 140 (93) | |
| | 1694 | 1.32 ns | 4+ | +4.3(17) | | | TF | 2002Ja02 | PR C65 024316 2002 | |
| | | | | 3.2(6) | | | IPAC | 1985Be04 | PR C31 570 (85) | |
| 54 Xe 137 | 0 | 3.82 m | 7/2- | -0.968(8) | | [129,131Xe] | CFBLS | 1989Bo03 | PL B216 7 (89) | |
| | | | | | | | [131Xe] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.47(2) | | [131Xe] | CFBLS | 1989Bo03 | PL B216 7 (89) |
| | 1620 | (0.6 ns) | 15/2 | 2.0(4) | | | IPAC | 2010LI03 | PR C81 014316 (10) | |
| 54 Xe 139 | 0 | 39.7 s | 3/2- | -0.304(10) | | [129,131Xe] | CFBLS | 1989Bo03 | PL B216 7 (89) | |
| | | | | | | | [131Xe] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | | | [131Xe] | CFBLS | 1989Bo03 | PL B216 7 (89) |
| 54 Xe 140 | 377 | 0.163 ns | 2+ | 0.7(2) | | | IPAC | 2009GO09 | PR C79 034316 (09) | |
| | | | | | | | | | | |
| 54 Xe 141 | 0 | 1.73 s | 5/2+ | +0.010(4) | | [129,131Xe] | CFBLS | 1989Bo03 | PL B216 7 (89) | |
| | | | | | | | [131Xe] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | | | [131Xe] | CFBLS | 1989Bo03 | PL B216 7 (89) |
| 54 Xe 142 | 287 | 0.20 ns | 2+ | 0.8(3) | | | IPAC R | 2009GO09 | PR C79 034316 (09) | |
| | | | | | | | | | | |
| 54 Xe 143 | 0 | 0.30 s | 5/2- | -0.4599(14) | | [129,131Xe] | CFBLS | 1989Bo03 | PL B216 7 (89) | |
| | | | | | | | [131Xe] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | | | [131Xe] | CFBLS | 1989Bo03 | PL B216 7 (89) |
| 55 Cs 118 | (0) | 14 s | 2 | +3.876(5) | | [133Cs] | ABLS | 1987Co19 | NP A468 1 (87) | |
| | | | | | | | [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | | | [133Cs] | ABLS | 1987Co19 | NP A468 1 (87) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-----|--------|------|------------|---------------|---|-------------|--------|--------------------------|---------------------------------|
| | (0) | 17 s | (6-) | 5.4(11) | | | | NO/S | 1987Sh12 | PR C36 413 (87) |
| 55 Cs 119 | (0) | 36 s | 9/2+ | +5.46(3) | | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | | | | | +2.65(17) | R | [133Cs] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +2.8(1) st | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | (0) | 28 s | 3/2+ | +0.838(5) | | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | | | | | +0.85(12) | R | [133Cs] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.9(1) st | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| 55 Cs 120 | 0 | 64 s | 2+ | +3.87(2) | | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | | | | | +1.36(7) | R | [133Cs] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +1.45(2) st | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | | | | +3.92(5) | | | [133Cs] | AB | 1978Ek03 | PL 76B 565 (78) |
| 55 Cs 121 | 0 | 2.27 m | 3/2+ | +0.770(4) | | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | | | | 0.79(2) | | | [133Cs] | AB | 1977Ek02 | NP A292 144 (77) |
| | | | | | +0.79(4) | R | [133Cs] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.838(9) st | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| m | ~36 | 2.02 m | 9/2+ | +5.41(3) | | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | | | | | +2.53(13) | R | [133Cs] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +2.69(5) st | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| 55 Cs 122 | (0) | 21 s | 1+ | -0.1333(9) | | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | | | | 0.133(2) | | | [133Cs] | AB | 1977Ek02 | NP A292 144 (77) |
| | | | | | -0.179(10) | R | [133Cs] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.190(10) st | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | (0) | 4.2 m | 8- | +5.41(3) | | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | | | | | +3.09(8) | R | [133Cs] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +3.29(8) st | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| 55 Cs 123 | 0 | 5.8 m | 1/2+ | +1.377(7) | | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | | | | +1.39(2) | | | [133Cs] | AB | 1977Ek02 | NP A292 144 (77) |
| 55 Cs 124 | 0 | 30.8 s | 1+ | +0.673(3) | | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | | | | +0.674(7) | | | [133Cs] | AB | 1977Ek02 | NP A292 144 (77) |
| | | | | | -0.69(4) | R | [133Cs] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.74(3) st | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| 55 Cs 125 | 0 | 45 m | 1/2+ | +1.409(7) | | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| 55 Cs 126 | 0 | 1.64 m | 1+ | +0.777(4) | | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | | | | +0.779(8) | | | [133Cs] | AB | 1977Ek02 | NP A292 144 (77) |
| | | | | | -0.64(3) | R | [133Cs] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-----|---------|--------|----------------|--------------|-------------|-----------|-----------------------------------|--|
| | | | | | -0.68(2) st | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| 55 Cs 127 | 0 | 6.2 h | 1/2+ | +1.459(7) | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | 66 | 24.9 ns | 5/2(+) | 2.7(5) | | | TDPAC | 1999Co22 | NIMPR B152 357 (99) |
| | | | | | 0.58(12) | [80Rb 561] | TDPAC | 1999Co22 | NIMPR B152 357 (99) |
| 55 Cs 128 | 0 | 3.62 m | 1+ | +0.974(5) | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | | | | +0.977(10) | | [133Cs] | AB | 1977Ek02 | NP A292 144 (77) |
| | | | | | -0.54(3) | R [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.570(8) st | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| 55 Cs 129 | 0 | 32.3 h | 1/2+ | +1.491(8) | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | 575 | 734 ns | 11/2- | +6.55(10) | | | TDPAD | 1978De29 | PR C18 2061 (78) |
| 55 Cs 130 | 0 | 29.9 m | 1+ | +1.460(7) | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | | | | +1.466(15) | | [133Cs] | AB | 1977Ek02 | NP A292 144 (77) |
| | | | | | -0.056(6) | R [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.059(6) st | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | 0+x | 3.7 m | 5(-) | +0.629(4) | | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| | | | | +0.631(10) | | [133Cs] | AB | 1977Ek02 | NP A292 144 (77) |
| | | | | | +1.36(8) | R [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +1.45(5) st | [133Cs] | ABLS | 1981Th06 | NP A468 1 (87) |
| 55 Cs 131 | 0 | 9.69 d | 5/2+ | +3.53(2) | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | +3.543(2) | | | AB/D | 1965Wo05 | PR 140 B1483 (65) |
| | | | | | +0.59(2) | R [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.575(6) st | [133Cs] | OL, OD, R | 1986St16 | ZNat 41a 24 (86) |
| | | | | | -0.67(4) st | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | 134 | 8.7 ns | 5/2+ | +1.86(8) | | | TDPAC | 1989Ra17 | JPJS 34 427 (73) |
| | | | | | 0.20(2) | R [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.022(3) | [133Cs 81] | TDPAC | 2000De13 | EurPJ A7 177 (00) |
| 55 Cs 132 | 0 | 6.47 d | 2(-) | +2.222(7) | | | OL | 1975Ac01 | NP A248 157 (75) |
| | | | | +2.23(1) | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | +0.48(2) | R [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.508(7) st | [133Cs] | OL | 1975Ac01 | NP A248 157 (75) |
| | | | | | +0.49(2) st | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| 55 Cs 133 | 0 | stable | 7/2+ | +2.582025(3) | | [87Rb] | OP/RD | 1973Wh01 | PR A7 1178 (73) |
| | | | | +2.5829128(15) | | [2H] | N | 1968Lu07/1967LU06 | ZNat 23a 1202 (68)/PL 25A 440 (67) |
| | | | | | -0.00343(10) | R | MB | 1998Pe18 | JCP 47 3896 (1967)/JCP 108 6739 (1998) |
| | | | | | -0.00355(4) | | CLS | 2003Ge06 | PRL 91 072501 (2003) |
| | | | | | -0.00371(14) | | OL | 1988Ta17/1981Th06 | PR A38 1616 (88)/NP A367 1 (81) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------------------|-------|------------|---------------|-------------|-----------|--------------------------|---------------------------------|
| | 81 | 6.31 ns | 5/2+ | +3.45(2) | -0.009(4) st | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | | [133Cs] | ME | 1968Ca03 | NP A109 59 (68) |
| | | | | | | R [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | | [133Cs] | ME | 1977Ca30 | PR B15 3318 (77) |
| | 161 | 190 ps | 5/2+ | +2.0(2) | -0.33(2) st | | IPAC | 1979Th02 | NP A318 97 (79) |
| 55 Cs 134 | 0 | 2.06 y | 4+ | +2.9937(9) | | [133Cs] | AB/D | 1957St11 | PR 105 590 (57) |
| | | | | +2.99(2) | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | | R [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.37(2) | [133Cs] | OD, R | 1975Ac01 | NP A248 157 (75) |
| | | | | | +0.389(3) st | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | +0.38(4) st | [133Cs] | TDPAC | 1970DrZX | Cf70Delft 549 (70) |
| | 11 | 47 ns | 5+ | +3.35(7) | | [133Cs] | AB/D | 1962Co14 | PR 127 517 (62) |
| | 139 | 2.90 h | 8- | +1.0978(2) | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | +1.111(6) | | [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.92(8) | R [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | +0.98(8) st | [133Cs] | | | |
| 55 Cs 135 | 0 | 3x10 ⁶ y | 7/2+ | +2.7324(2) | | [133Cs] | AB/D | 1957St11 | PR 105 590 (57) |
| | | | | +2.73(1) | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | | R [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.048(3) | [133Cs] | OL, OD, R | 1975Ac01 | NP A248 157 (75) |
| | | | | | +0.050(2) st | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | +0.03(2) st | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | 1633 | 53 m | 19/2- | +2.18(1) | | [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.83(7) | R [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | +0.89(7) | [133Cs] | | | |
| 55 Cs 136 | 0 | 13.2 d | 5+ | +3.711(15) | | [133Cs] | OL | 1975Ac01 | NP A248 157 (75) |
| | | | | +3.71(2) | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | | R [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.213(15) | [133Cs] | OL | 1975Ac01 | NP A248 157 (75) |
| | | | | | +0.225(10) st | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | +0.17(6) st | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | 0+x | 19 s | 8- | +1.319(7) | | [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.70(3) | R [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | +0.74(10) | [133Cs] | | | |
| 55 Cs 137 | 0 | 30.17 y | 7/2+ | +2.8513(7) | | [133Cs] | AB/D | 1957St11 | PR 105 590 (57) |
| | | | | +2.838(7) | | [133Cs] | CFBLS | 1978Sc27 | PL 79B 209 (78) |
| | | | | +2.84(1) | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | | R [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.048(2) | [133Cs] | OL, OD, R | 1975Ac01 | NP A248 157 (75) |
| | | | | | +0.051(1) st | [133Cs] | CFBLS | 1978Sc27 | PL 79B 209 (78) |
| | | | | | +0.06(2) st | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | +0.03(4) st | [133Cs] | | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|----|--------|---------|---------------|--------------------------|------------------|-------------|--------|--------------------------|---------------------------------|
| 55 Cs 138 | 0 | 32.2 m | 3- | +0.700(4) | | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | +0.701(7) | | | [133Cs] | AB | 1979Ek02 | PS 19 516 (79) |
| | | | | +0.701(14) | | | [133Cs] | CFBLS | 1979Bo01 | ZP A289 227 (79) |
| | | | | | +0.112(17) | R | [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.13(2) st | | [133Cs] | CFBLS | 1979Bo01 | ZP A289 227 (79) |
| | | | | | +0.12(2) st | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| 55 Cs 139 | 0 | 9.4 m | 7/2+ | +2.696(4) | | | [133Cs] | CFBLS | 1979Bo01 | ZP A289 227 (79) |
| | | | | +2.70(1) | | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | +2.70(3) | | | [133Cs] | AB | 1979Ek02 | PS 19 516 (79) |
| | | | | | -0.063(14) | R | [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | [133Cs] | CFBLS | 1979Bo01 | ZP A289 227 (79) | | | | |
| | | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) | | | | |
| | | | | -0.06(3) st | | | | | | |
| 55 Cs 140 | 0 | 65 s | 1- | +0.1338953(5) | | | [133Cs] | ABLS | 1986Du16 | JPPa 47 1903 (86) |
| | | | | +0.134(1) | | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | +0.134(2) | | | [133Cs] | AB | 1979Ek02 | PS 19 516 (79) |
| | | | | +0.134(3) | | | [133Cs] | CFBLS | 1979Bo01 | ZP A289 227 (79) |
| | | | | | -0.094(15) | R | [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.112(7) st | | [133Cs] | CFBLS | 1979Bo01 | ZP A289 227 (79) |
| | | | | | -0.10(2) st | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| 55 Cs 141 | 0 | 25.1 s | 7/2+ | +2.438(10) | | | [133Cs] | CFBLS | 1979Bo01 | ZP A289 227 (79) |
| | | | | +2.42(3) | | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | +2.41(1) | | | [133Cs] | AB | 1979Ek02 | PS 19 516 (79) |
| | | | | | -0.42(7) | R | [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.36(4) st | | [133Cs] | CFBLS | 1979Bo01 | ZP A289 227 (79) |
| | | | | | -0.45(7) st | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| 55 Cs 143 | 0 | 1.78 s | 3/2+ | +0.870(4) | | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | +0.44(3) | R | [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.47(3) st | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| 55 Cs 144 | 0 | 1.00 s | 1 | -0.546(3) | | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | +0.29(2) | R | [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.30(1) st | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| 55 Cs 145 | 0 | 0.59 s | 3/2+ | +0.784(4) | | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |
| | | | | | +0.58(6) | R | [133Cs] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.62(6) st | | [133Cs] | ABLS | 1981Th06 | NP A367 1 (81) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | | | |
|-----------|-------|---------|--------|---------------------------|--------------|--------------|-------------|-----------------------------------|------------------------------------|-----------------------------------|-------|--------------------------|------------------|
| 55 Cs 146 | 0 | 0.34 s | 1 | -0.515(2) | | [133Cs] | ABLS | 1987Co19 | NP A468 1 (87) | | | | |
| | | | | | +0.21(3) | R | [133Cs] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) | | | |
| | | | | | +0.22(3) st | | [133Cs] | ABLS | 1987Co19 | NP A468 1 (87) | | | |
| 56 Ba 121 | 0 | 30 s | 5/2(+) | +0.660(1) | | [135,137Ba] | CFBLS | 1988We14 | PL 211B 272 (88) | | | | |
| | | | | | +1.96(13) | R | [135Ba] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) | | | |
| | | | | | +1.79(12) st | | [135,137Ba] | CFBLS | 1988We14 | PL 211B 272 (88) | | | |
| 56 Ba 123 | 0 | 2.7 m | 5/2+ | -0.680(1) -0.69(2) | | [135,137Ba] | CFBLS | 1988We14 | PL 211B 272 (88) | | | | |
| | | | | | | | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) | | | |
| | | | | | +1.63(13) | R | [135Ba] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) | | | |
| | | | | | +1.49(12) st | | [135,137Ba] | CFBLS | 1988We14 | PL 211B 272 (88) | | | |
| | | | | | +1.52(13) | | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) | | | |
| 56 Ba 125 | 0 | 3.5 m | 1/2+ | +0.177(12) | | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) | | | | |
| | 0 + x | | 5/2+ | 0.1736(10) | | [135,137Ba] | CFBLS | 1992Da06 | JP G18 L67 (92) | | | | |
| 56 Ba 127 | 0 | 12.7 m | 1/2(+) | +0.0834(10) +0.089(12) | | [135,137Ba] | CFBLS | 1992Da06 | JP G18 L67 (92) | | | | |
| | | | | | | | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) | | | |
| | | | | | | | [135,137Ba] | CFBLS | 1992Da06 | JP G18 L67 (92) | | | |
| | 80 | 1.9 s | 7/2(-) | -0.7227(5) | +1.78(14) | R | [135Ba] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) | | | |
| | | | | | +1.62(13) | | [135,137Ba] | CFBLS | 1992Da06 | JP G18 L67 (92) | | | |
| 56 Ba 129 | 0 | 2.23 h | 1/2+ | -0.398(16) | | [135,137Ba] | ABLFS, R | 1983Mu12/1979Be25 | NP A403 234 (83)/ZP A291 219 (79) | | | | |
| | 8.4 | 2.16 h | 7/2+ | +0.930(17) | | [135,137Ba] | ABLFS, R | 1983Mu12/1979Be25 | NP A403 234 (83)/ZP A291 219 (79) | | | | |
| | | | | | +1.75(14) | R | [135Ba] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) | | | |
| | | | | | +1.60(13) st | | [135,137Ba] | ABLFS, R | 1983Mu12/1979Be25 | NP A403 234 (83)/ZP A291 219 (79) | | | |
| | 182 | 16 ns | 9/2- | -0.86(3) | | [132Ba 3115] | TDPAD | 2013Ka27 | PR C87 064312 (2013) | | | | |
| | 2462 | 47 ns | 23/2+ | -2.68(8) | | [132Ba 3115] | TDPAD | 2013Ka27 | PR C87 064312 (2013) | | | | |
| 56 Ba 130 | 357 | 37 ps | 2+ | +0.70(6) | | | TF | 1980Br01 | PR C21 574 (80) | | | | |
| | | | | | | | | -1.0(2) or -0.1(2) | R | | CER | 1989Bu07 | NP A494 102 (89) |
| | | | | | | | | -0.86(8) | | | CER | | ARANU 26 (86) |
| | | | | | -0.3(2) | | | CERP | 1974Ne15 | PL 52B 189 (74) | | | |
| | 2476 | 9.54 ms | 8- | -0.04(3) | | | | CLS | 2002Mo31 | PL B547 200 (02) | | | |
| | | | | | +2.40(6) | R | [135Ba] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) | | | |
| | | | | +2.8(3) | | | CLS | 2002Mo31 | PL B547 200 (02) | | | | |
| 56 Ba 131 | 0 | 11.8 d | 1/2+ | 0.708113(15) -0.71(2) | | [137Ba] | TIS | 1987Kn10 | EPL 4 1361 (87) | | | | |
| | | | | | | | [135,137Ba] | ABLFS, R | 1983Mu12/1979DbE25 | NP A403 234 (83)/ZP A291 219 (79) | | | |
| | | | | | 188 | 14.6 m | 9/2- | -0.87(2) | | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) |
| | | | | +1.60(14) | R | [135Ba] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) | | | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|-------------|-------|-------------|-------------------------|-------------|----------|------------------------------------|-----------------------------------|
| | | | | | +1.46(13) st | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) |
| 56 Ba 132 | 465 | 18 ps | 2+ | +0.68(6) | | | TF | 1980Br01 | PR C21 574 (80) |
| | 3115 | 12.3 ns | 10+ | -1.56(11) | | | IPAD | 1995Ha26 | PR C52 1796 (95) |
| | | | | -1.59(5) | | | TDPAD | 1996Da02 | PR C53 1009 (96) |
| 56 Ba 133 | 0 | 10.7 y | 1/2+ | 0.77167(2) | | [137Ba] | TIS | 1987Kn10 | EPL 4 1361 (87)/JPCo 42 339 (81) |
| | | | | -0.769(3) | | [135Ba] | O | 1976Ho13 | PL 62B 390 (76) |
| | 12 | 4.7 ns | 3/2+ | -0.777(14) | | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) |
| | 288 | 38.9 h | 11/2- | +0.51(7) | | [135Ba] | XHFS | 1981Gr18 | ZETF 80 120 (81) |
| | | | | -0.91(5) | | [135,137Ba] | ABLFS, R | 1983Mu12/1979DbE25 | NP A403 234 (83)/ZP A291 219 (79) |
| | | | | | +0.96(6) | R [135Ba] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.89(7) st | [135,137Ba] | ABLFS, R | 1983Mu12/1979DbE25 | NP A403 234 (83)/ZP A291 219 (79) |
| 56 Ba 134 | 605 | 5.1 ps | 2+ | +0.86(10) | | | TF | 1980Br01 | PR C21 574 (80) |
| | | | | +0.82(12) | | | IMPAC | 1980Eb01 | HFI 7 387 (80) |
| | | | | | -0.26(12) or +0.15(12) | R | CER | 1989Bu07 | NP A494 102 (89) |
| | | | | | -0.32(6) or +0.09(6) | | CER | 1989Bu07 | NP A494 102 (89) |
| | | | | | or -0.20(6) or +0.21(6) | | | | |
| | | | | | -0.34(16) or -0.13(16) | | CER | 1977KI05 | NP A283 526 (77) |
| | 2957 | 2.6 μ s | 10+ | -2.0(1) | | | TDPAD | 1982BeZY | BAPS 27 27 (82) |
| 56 Ba 135 | 0 | stable | 3/2+ | +0.83794(2) | | | OP/RD | 1972OI01 | ZP 249 205 (72) |
| | | | | 0.838627(2) | | [35Cl] | N | 1978Lu07 | ZP A288 11 (78) |
| | | | | | +0.160(3) | R | R | 1988We07 | ZP A329 407 (88) |
| | | | | | +0.15(2) st | | OL, R | 1983Mu12/1976Ma28 | NP A403 234 (83)/ZP A277 107(76) |
| | | | | | 0.150(15) | | CFBLS | 1986Si03 | PR A33 2117 (86) |
| | | | | | 0.16(3) st | | ABLFS | 1979Ba74 | PRS A365 567 (79) |
| | | | | | 0.22(3) | | ABLS, R | 1982Gr14/1979Gu09 | ZP A306 195 (82)/ZP A290 231 (79) |
| | | | | | 0.23(5) | | ABLFS | 1982Gr14 | ZP A306 195 (82) |
| | 268 | 28.7 h | 11/2- | -1.001(15) | | [135,137Ba] | ABLFS, R | 1983Mu12/1979DbE25 | NP A403 234 (83)/ZP A291 219 (79) |
| | | | | | +1.03(15) | R [135Ba] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.98(8) st | [135,137Ba] | ABLFS, R | 1983Mu12/1979DbE25 | NP A403 234 (83)/ZP A291 219 (79) |
| 56 Ba 136 | 819 | 1.93 ps | 2+ | +0.69(10) | | | TF | 1980Br01 | PR C21 574 (80) |
| | | | | | -0.19(6) or +0.07(7) | R | CER | 1986Ro15 | PR C34 732 (86) |
| | | | | | +0.01(5) or +0.25(5) | | CER | 1984Be20 | PR C29 1672 (84) |
| | 2140 | 1.5 ns | 5- | -1.9(2) | | | IPAC | 1979Oh03 | HFI 7 103 (79) |
| 56 Ba 137 | 0 | stable | 3/2+ | +0.93737(2) | | | OP/RD | 1972OI01 | ZP 249 205 (72) |
| | | | | 0.93734(2) | | [135Ba] | N | 1978Lu07 | ZP A288 11 (78) |
| | | | | | +0.245(4) | R | R | 1988We07 | ZP A329 407 (88) |
| | | | | | +0.23(3) st | | OL, R | 1983Mu12/1976Ma28 | NP A403 234 (83)/ZP A277 107(76) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|-------------|--------|------------|----------------------|-------------|----------|-----------------------------------|-----------------------------------|
| | | | | | 0.246(2) | | R | 1986Si03 | PR A33 2117 (86) |
| | | | | | 0.23(2) | | CFBLS | 1986Si03 | PR A33 2117 (86) |
| | | | | | 0.34(4) | | ABLS | 1979Gu09 | ZP A290 231 (79) |
| | | | | | 0.35(8) | | ABLFS | 1982Gr14 | ZP A306 195 (82) |
| | 662 | 2.55 m | 11/2- | -0.99(3) | | [135,137Ba] | ABLFS, R | 1983Mu12 | NP A403 234 (83) |
| | | | | | +0.85(10) | [135Ba] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.78(9) | [135,137Ba] | ABLFS, R | 1983Mu12 | NP A403 234 (83) |
| 56 Ba 138 | 1436 | 0.206 ps | 2+ | +1.4(2) | | | TF | 1987Ba65 | ZP A328 275 (87) |
| | | | | | -0.14(6) or +0.08(6) | | R | 1989Bu07 | NP A494 102 (89) |
| | 1899 | 2.17 ns | 4+ | 3.2(6) | | | IPAC | 1985Be04 | PR C31 570 (85) |
| | 2091 | 0.8 μ s | 6+ | 5.9(12) | | | TDPAD | 1976Ik04 | HFI 2 331 (76) |
| 56 Ba 139 | 0 | 84.6 m | 7/2- | -0.973(5) | | [135,137Ba] | CFBLS | 1988We07 | ZP A329 407 (88) |
| | | | | -0.98(2) | | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) |
| | | | | | -0.573(13) | | R | 1988We07 | ZP A329 407 (88) |
| | | | | | -0.50(4) st | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) |
| 56 Ba 140 | 602 | 7.2 ps | 2+ | | -0.5(3) | | R | 2012Ba40 | PR C86 034310 (12) |
| 56 Ba 141 | 0 | 18.7 m | 3/2- | -0.337(5) | | [135,137Ba] | CFBLS | 1988We07 | ZP A329 407 (88) |
| | | | | -0.35(2) | | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) |
| | | | | | +0.454(10) | | R | 1988We07 | ZP A329 407 (88) |
| | | | | | +0.43(4) st | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) |
| 56 Ba 142 | 359 | 66 ps | 2+ | 0.85(10) | | | IPAC, R | 1988Wo03/1986Gi14 | PR C37 1253 (88)/PR C34 1983 (86) |
| 56 Ba 143 | 0 | 14.5 s | 5/2(+) | +0.443(11) | | [135,137Ba] | CFBLS | 1988We07 | ZP A329 407 (88) |
| | | | | +0.45(2) | | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) |
| | | | | | -0.88(2) | | R | 1988We07 | ZP A329 407 (88) |
| | | | | | -0.81(7) st | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) |
| | 117 | 2.6 ns | 9/2- | +0.5(3) | | [144Ba 199] | IMPAC | 1999Sm05 | PL B453 206 (99) |
| 56 Ba 144 | 199 | 0.70 ns | 2+ | 0.68(10) | | | IPAC | 1983Wo05 | PL 123B 165 (83) |
| 56 Ba 145 | 0 | 4.31 s | 5/2(-) | -0.285(7) | | [135,137Ba] | CFBLS | 1988We07 | ZP A329 407 (88) |
| | | | | -0.27(4) | | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) |
| | | | | | +1.22(2) | | R | 1988We07 | ZP A329 407 (88) |
| | | | | | +1.15(10) st | [135,137Ba] | CFBLS | 1983Mu12 | NP A403 234 (83) |
| | 113 | (0.21) ns | 7/2- | -1.4(10) | | [144Ba 199] | IMPAC | 1999Sm05 | PL B453 206 (99) |
| 56 Ba 146 | 181 | 0.85 ns | 2+ | 0.54(18) | | | IPAC | 2009GO09 | PR C79 034316 (09) |
| | | | | 0.56(14) | | | IPAC | 1983Wo05 | PL 123B 165 (83) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|------------------------|---------|---------------|---------------|-------------|--------------|-----------------------------------|-----------------------------------|
| | | | | +0.4(2) | | [144Ba 199] | IMPAC | 1999Sm05 | PL B453 206 (99) |
| 57 La 133 | 536 | 60 ns | 11/2- | 7.5(5) | | | TDPAC | 1979BuZW | CF79Riga 81 (79) |
| 57 La 135 | 0 | 19.5 h | 5/2+ | +3.70(9) | | [139La] | CFBLS | 2003II03 | PR C68 054328 (03) |
| | | | | | -0.4(4) | [139La] | CFBLS | 2003II03 | PR C68 054328 (03) |
| | 2737 | 50 ns | (27/2)+ | 0.0(2) | | | TDPAD | 1976Le29 | IzF 40 1249 (76) |
| 57 La 137 | 0 | 6 x 10 ⁴ y | 7/2+ | +2.700(15) | | [139La] | CFBLS | 2003II03 | PR C68 054328 (03) |
| | | | | +2.695(6) | | [139La] | O | 1972Fi19 | ZP 254 127 (72) |
| | | | | | +0.21(4) | [139La] | CLS | 2003II03 | PR C68 054328 (2003) |
| | | | | | +0.21(3) | [139La] | O | 1972Fi19 | ZP 254 127 (72) |
| | | | | | +0.24(7)st | [139La] | O | 1972Fi19 | ZP 254 127 (72) |
| | 10 | 89 ns | 5/2+ | | +0.24(7)st | [137La] | ME | 1978Ge20 | HFI 4 630 (78) |
| | 1870 | 365 ns | 19/2- | +2.34(6) | | | TDPAD | 1982KiZV | BAPS 27 728 (82) |
| 57 La 138 | 0 | 1.1x10 ¹¹ y | 5+ | +3.713646(7) | | [139La] | N | 1977Kr12/1955So31 | PL 62A 131 (77)/PR 99 613 (55) |
| | | | | | +0.39(3) | [139La] | CLS | 2003II03 | PR C68 054328 (2003) |
| | | | | | +0.45(2) st | [139La] | ABLDF | 1979Ch39 | PR A20 1922 (79) |
| | | | | | 0.43(2) st | [139La] | QIR | 1977Kr12 | PL 62A 131 (77) |
| | 73 | 116 ns | 3+ | +2.89(5) | | [19F 197] | TDPAD | 1979Bo11 | ZP A291 49 (79) |
| 57 La 139 | 0 | stable | 7/2+ | +2.7830455(9) | | [2H] | N, O | 1977Kr12 | PL 62A 131 (77)/ZP 116 547 (40) |
| | | | | | +0.200(6) | R | MB | 2007Ja16 | JCP 127 204303 (2007) |
| | | | | | +0.20(1) st | | CFBLS, R | 1982Ba08/1982Ho02 | ZP A304 285 (82)/ZP A304 279 (82) |
| 57 La 140 | 0 | 40.3 h | 3- | +0.730(15) | | [139La] | AB | 1969HuZY | Cf69Mont 91 (69) |
| | | | | | +0.084(13) | R | [139La] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.094(10) st | [139La] | NO/S, AB | 1966Bi05/1971Ch02 | PR 143 911 (66)/PR A3 25 (71) |
| 58 Ce 126 | 2887 | 8 ps | 10+ | ~+10 | | | IPAD | 1987IsZS | Cf87Melb. 93 (87) |
| | 3317 | 4 ps | 12+ | ~+12 | | | IPAD | 1987IsZS | Cf87Melb. 93 (87) |
| 58 Ce 129 | 108 | 60 ns | 9/2- | -0.83(5) | | | TDPAD | 1998Io01 | NP A633 459 (98) |
| | | | | | 1.32(13) | R | [138Ce 3538] | 1998Io01 | NP A633 459 (98) |
| 58 Ce 130 | 2454 | 109 ns | 7- | | 1.8(2) | R | TDPAD | 1999Io02 | PR C60 024316 (99) |
| 58 Ce 131 | 162 | 88 ns | 9/2- | -0.85(3) | | | TDPAD | 1998Io01 | NP A633 459 (98) |
| | | | | | 0.92(10) | R | [138Ce 3538] | 1998Io01 | NP A633 459 (98) |
| 58 Ce 134 | 3209 | 308 ns | 10+ | -1.87(2) | | | TDPAD, R | 1984Be68 | PL 101A 507 (84) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|--------------|-----------------|----------|--|----------------------|---|-------------------------|---|--|--|
| | | | | -1.9(1) | | | | TDPAD | 1980Go14 | PL 97B 351 (80) |
| | 3719 | 5.5 ps | 10+ | -3(3) | +1.32(12) | R | [138Ce 3538] | TDPAD, TF IMPAD | 1983Da29/1986Da22 1982Ze04 | HFI 15 101 (83)/PL 181B 21 (86) NP A383 165 (82) |
| 58 Ce 135 | 2126 | 8.2 ns | 19/2+ | -0.66(10) | | | | IPAD | 1982Ze01 | ZP A304 269 (82) |
| 58 Ce 136 | 3095 | 2.2 μ s | 10+ | -1.80(2) -1.80(3) | | | | TDPAD TDPAD | 1980Ba68 1982Ri09 | PRL 45 1015 (80) PRL 48 516 (82) |
| | | | | | +1.11(11) | R | [138Ce 3538] | TDPAD | 1983Da29 | HFI 15 101 (83) |
| 58 Ce 137 | 0 | 9.0 h | 3/2+ | 0.96(4) 0.90(15) | | | | NMR/ON NO/S | 1991Mu06 1963Ha07 | JPJa 60 845 (91) PR 129 1601 (63) |
| | 254 | 34.4 h | 11/2- | 1.01(4) 0.70(3) 0.96(9) | | | | NMR/ON NO/S NO/S | 1991Mu06 1966Bl17 1961Ha05 | JPJa 60 845 (91) PR 143 78 (66) PR 121 591 (61) |
| 58 Ce 138 | 3538 | 82 ns | 10+ | -1.70(3) -1.76(10) | | | | TDPAD TDPAD | 1980Ba68 1980Me11 | PRL 45 1015 (80) NP A346 281 (80) |
| | | | | | estimated +0.77 eb | | | not measured | 1983Da29 | HFI 15 101 (83) |
| 58 Ce 139 | 0 | 137.6 d | 3/2+ | 1.06(4) 1.0(2) 0.85(15) | | | | NMR/ON NO/S NO/S | 1991Mu06 1963Ha07 1962Gr17 | JPJa 60 845 (91) PR 129 1601 (63) PhMg 7 1087 (62) |
| | 2632 | 70 ns | 19/2- | +3.99(6) +3.85(8) | | | | TDPAD TDPAD | 1980Ba68 1984Vo12 | PRL 45 1015 (80) YadF 40 289 (84) |
| 58 Ce 140 | 1596 2084 | 90 fs 3.4 ns | 2+ 4+ | +1.9(2) +4.00(20) 4.06(15) 3.8(4) 4.44(16) 4.6(3) | | | | TF TDPAC TDPAC, IPAC TDPAC TDPAC TDPAC | 1991Ba38 2013Ok03 1965Le16 1964Sc16 1963Ko07 1963Ka03 | NP A533 541 (91) PR C87 044324 (2013) PR 140 B811 (65) PR 134 B718 (64) ZP 173 203 (63) PL 3 291 (63) |
| | 3715 | 23 ns | 10+ | +10.3(4) | 0.35(7) st | R | [139La] [139Ce 2632] | TDPAC TDPAD | 1989Ra17 1988Ka04 | JPJS 34 265 (73) ZP A329 143 (88) |
| 58 Ce 141 | 0 | 32.5 d | 7/2- | 1.09(4) 0.89(1) 0.89(9) 1.3(2) | | | | NMR/ON EPR NO/S NO/S | 1983Va36 1957Ke13 1962Gr17 1963Ha07 | HFI 15 325 (83) PR 108 54 (57) PhMg 7 1087 (62) PR 129 1601 (63) |
| 58 Ce 142 | 641 | 5.7 ps | 2+ | +0.42(10) | | | | TF CER | 1991Ba38 1988Ve08/1989Sp07 | NP A533 541 (91) PR C38 2982 (88)/AuJP 42 345 (89) |
| | | | | | -0.16(5) or -0.37(5) | R | | | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | | |
|-----------|---------|-----------|------------|-------------------|--------------|-------------|----------|-----------------------------------|------------------------------------|---------------------------------|--------------------------|------------------|
| 58 Ce 143 | 0 | 33 h | 3/2- | 0.43(1) | | | NMR/ON | 2002Ta01 | PR C65 017301 (01) | | | |
| | | | | 1.0(3) | | | NO/S | 1963Ha07 | PR 129 1601 (63) | | | |
| 58 Ce 146 | 259 | 0.25 ns | 2+ | 0.9(2) | | | IPAC | 2009GO09 | PR C79 034316 (09) | | | |
| | | | | 0.48(10) | | | IPAC | 1986Gi05 | PR C33 1030 (86) | | | |
| | | | | +0.9(7) | | [148Ce 158] | IMPAC | 1999Sm05 | PL B453 206 (99) | | | |
| 58 Ce 148 | 158 | 1.01 ns | 2+ | 0.78(16) | | | IPAC | 2009GO09 | PR C79 034316 (09) | | | |
| | | | | 0.74(12) | | | IPAC | 1986Gi05 | PR C33 1030 (86) | | | |
| 58 Ce 150 | 306 | (0.18) ns | 4+ | +3.2(16) | | [148Ce 158] | IMPAC | 1999Sm05 | PL B453 206 (99) | | | |
| 59 Pr 136 | 595 | 90 ns | 6+ | +3.42(11) | | | TDPAD | 1993Ba42 | NP A603 50 (96) | | | |
| 59 Pr 139 | 822 | 45 ns | 11/2- | +6.6(5) | | | TDPAD | 1979Ke07 | ZP A291 319 (79) | | | |
| | | | | +7.2(6) | | | TDPAD | 1982Ri09 | PRL 48 516 (82) | | | |
| 59 Pr 141 | 0 | stable | 5/2+ | +4.2754(5) | | | OD | 1982Ma31/1984Ma12 | PRL 49 636 (82)/PR B29 2390 (84) | | | |
| | | | | | -0.077(6) st | R | R | 1994Ii01 | PR C50 661 (94) | | | |
| | | | | | -0.059(4) | | AB | 1963Bi25 | Cf63Paris 595 (63) | | | |
| | | | | 145 | 1.85 ns | 7/2+ | +2.95(9) | | [141Pr] | ME, R | 1976St73 | JPCR 5 1093 (76) |
| | | | | 1118 | 4.6 ns | 11/2- | +6.2(4) | | | TDPAD | 1984Go12 | ZETF 87 3 (84) |
| | | | | | | | +7.2(4) | | | TDPAD | 1974Ej01 | NP A221 211 (74) |
| | 1797 | 1.0 ns | 15/2+ | +8(2) | | | IPAD | 1984Go12 | ZETF 87 3 (84) | | | |
| 59 Pr 142 | 0 | 19.2 h | 2- | +0.234(1) | | | AB, R | 1973AnZO/1970HiZW | PCan 29n4 47 (73)/BAPS 15 628 (70) | | | |
| | | | | | +0.039(17) | R | [141Pr] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) | | |
| | | | | | +0.030(9) | | | AB | 1962Ca10 | PR 126 1004 (62) | | |
| | 4 | 14.6 m | 5- | 2.2(1) | | | AB | 1973AnZO | PCan 29n4 47 (73) | | | |
| 59 Pr 143 | 0 | 13.57 d | 7/2+ | +2.701(4) | | | [141Pr] | CFBLS | 1994Ii01 | PR C50 661 (94) | | |
| | | | | | +0.77(16) st | R | [141Pr] | CFBLS | 1994Ii01 | PR C50 661 (94) | | |
| | | | | 57 | 4.2 ns | 5/2+ | +3.4(1) | | | TDPAC | 1977Ne12 | HFI 3 147 (77) |
| 59 Pr 144 | 80 | 0.12 ns | 1- | -1.2(4) | | | IPAC | 1975Ba32 | PS 11 363 (75) | | | |
| 60 Nd 133 | SD band | (-) | (37-45)/2+ | g(avge) = 0.31(8) | | | TF | 1995Me08 | NP A589 106 (95) | | | |
| 60 Nd 134 | 295 | 64 ps | 2+ | +1.2(4) | | [146Nd 454] | IMPAD | 1987Bi13 | PR C36 974 (87) | | | |
| | 2817 | 9.0 ps | 10+ | ~0 | | | IPAD | 89OgZY | Gensh. Ken. 33 145 (89) | | | |
| 60 Nd 135 | 0 | 12.4 m | 9/2- | -0.78(3) | | | [143Nd] | LRIMS | 1992Le09 | JP G18 1177 (92) | | |
| | | | | | | +1.9(5) st | R | [143Nd] | LRIMS | 1992Le09 | JP G18 1177 (92) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|-------------|-------|------------|----------------------|-------------|-------------|-----------------------------------|----------------------------------|
| | 199 | 35 ps | 11/2- | -0.5(3) | | [146Nd 454] | IMPAD | 1987Bi13 | PR C36 974 (87) |
| 60 Nd 136 | 3298 | 51.3 ps | 10+ | +11(4) | | [146Nd 454] | IMPAD | 1987Bi13 | PR C36 974 (87) |
| | 3688 | 18.7 ps | 12+ | +14(5) | | [146Nd 454] | IMPAD | 1987Bi13 | PR C36 974 (87) |
| 60 Nd 137 | 0 | 38 m | 1/2+ | -0.633(5) | | [143Nd] | LRIMS | 1992Le09 | JP G18 1177 (92) |
| 60 Nd 138 | 3172 | 330 ns | 10+ | -1.74(4) | | | TDPAD | 1982Ri09 | PRL 48 516 (82) |
| 60 Nd 139 | 0 | 30 m | 3/2+ | +0.907(7) | | [143Nd] | LRIMS | 1992Le09 | JP G18 1177 (92) |
| | | | | | +0.28(9) st | [143Nd] | LRIMS | 1992Le09 | JP G18 1177 (92) |
| 60 Nd 140 | 3622 | 22 ns | 10+ | -1.92(12) | | | TDPAD | 1980Me11 | NP A346 281 (80) |
| | | | | -1.6(2) | | | TDPAD | 1982SiZP | Cf82Fuji 35 (82) |
| 60 Nd 141 | 0 | 2.49 h | 3/2+ | +1.012(9) | | [143Nd] | LRIMS | 1992Le09 | JP G18 1177 (92) |
| | | | | | +0.32(13) st | [143Nd] | LRIMS | 1992Le09 | JP G18 1177 (92) |
| 60 Nd 142 | 1576 | 110 fs | 2+ | +1.69(15) | | | TF | 1991Ba38 | NP A533 541 (91) |
| 60 Nd 143 | 0 | stable | 7/2- | -1.065(5) | | | AB/D | 1965Sm04 | PPS 86 1249 (65) |
| | | | | | -0.61(2) st | R | ABLS | 1992Au04 | ZP D23 19 (92) |
| | | | | | -0.59(3) st | | AB, R | 1992Le09 | JP G18 1177 (92) |
| | | | | | -0.56(6) st | | AB | 1972Ch54 | PR A6 1772 (72) |
| | | | | | -0.48(2) | | AB | 1965Sm04 | PPS 86 1249 (65) |
| | 1229 | 6.79 ns | 13/2+ | +0.38(3) p | | | IPAD | 1994KA23 | ZP A348 173 (94) |
| | 2911 | 482 ps | 21/2+ | +7.2(13) p | | | IPAD | 1994KA23 | ZP A348 173 (94) |
| 60 Nd 144 | 697 | 4.51 ps | 2+ | +0.418(14) | | | TF | 2001Ho02 | PL B493 7 (00) |
| | | | | +0.32(4) | | | TF | 1990St18 | NP A516 119 (90) |
| | | | | +0.33(8) | | [152Sm 122] | TF | 1987Be08 | HFI 33 37 (87) |
| | | | | +0.30(4) | | [148Nd 302] | TF/IMPAC, R | 1978Ka36 | NP A311 507 (78) |
| | | | | | -0.15(6) or -0.28(6) | R | CER | 1989Sp07 | AuJP 42 345 (89) |
| | | | | | -0.18(12) | | CER | 1971Cr01/1970Ge08 | PR C3 2049 (71)/NP A151 282 (70) |
| | 1314 | 7.4 ps | 4+ | +0.52(14) | | | TF | 2001Ho02 | PL B493 7 (00) |
| | | | | +0.8(8) | | | IPAC | 1967Jo11 | ArkF 33 329 (67) |
| | 1791 | (est.40 ps) | 6+ | -3.4(13) | | | TF | 2001Ho02 | PL B493 7 (00) |
| 60 Nd 145 | 0 | stable | 7/2- | -0.656(4) | | | AB/D | 1965Sm04 | PPS 86 1249 (65) |
| | | | | | -0.314(12) st | R | ABLS | 1992Au04 | ZP D23 19 (92) |
| | | | | | -0.29(3) st | | AB | 1972Ch54 | PR A6 1772 (72) |
| | | | | | -0.253(10) | | AB | 1965Sm04 | PPS 86 1249 (65) |
| | 73 | 0.72 ns | 5/2- | -0.320(4) | | [145Nd] | ME | 1970Ka36 | ZP 240 100 (70) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | | | | |
|-----------|------|---------|-------|------------|-----------|-------------|-----------------|--------------------------|--------------------------|------------------|-------|--------------------------|--------------------------|------------------|
| 60 Nd 146 | 454 | 27.5 ps | 2+ | +0.578(16) | -0.78(9) | R | TF | 2001Ho02 | PL B493 7 (00) | | | | | |
| | | | | 0.60(4) | | | TF | 1999BeZR | Cf99S.Agata | | | | | |
| | | | | 0.58(2) | | | TF | 1990St18 | NP A516 119 (90) | | | | | |
| | | | | +0.63(10) | | | [152Sm 122] | TF | 1987Be08 | HFI 33 37 (87) | | | | |
| | | | | +0.50(8) | | | [148Nd 302] | TF/IMPAC, R | 1978Ka36 | NP A311 507 (78) | | | | |
| | | | | | | | CER | 1970Ge08 | NP A151 282 (70) | | | | | |
| | 1043 | 4 ps | 4+ | +0.77(10) | | | TF | 2001Ho02 | PL B493 7 (00) | | | | | |
| 60 Nd 147 | 0 | 11.0 d | 5/2- | 0.578(3) | 0.9(3) | R | [143Nd] | EPR | 1957Ke13 | PR 108 54 (57) | | | | |
| | | | | 0.554(10) | | | [145Nd] | AB | 1970PiZR | BAPS 15 769 (70) | | | | |
| | | | | | | | [145Nd] | AB | 1970PiZR | BAPS 15 769 (70) | | | | |
| 60 Nd 148 | 302 | 78 ps | 2+ | +0.73(3) | -1.46(13) | R | TF | 2001Ho02 | PL B493 7 (00) | | | | | |
| | | | | 0.70(4) | | | TF | 1990St18 | NP A516 119 (90) | | | | | |
| | | | | +0.83(9) | | | [152Sm 122] | TF | 1987Be08 | HFI 33 37 (87) | | | | |
| | | | | +0.64(8) | | | TF,IMPAC,CEAD,R | 1978Ka36 | NP A311 507 (78) | | | | | |
| | | | | | | | CER | 1970Ge08 | NP A151 282 (70) | | | | | |
| | | | | 752 | | | 7.0 ps | 4+ | +1.4(1) | | | TF | 2001Ho02 | PL B493 7 (00) |
| | | | | 1280 | | | (est 4.6 ps) | 6+ | +1.6(3) | | | TF | 2001Ho02 | PL B493 7 (00) |
| | | | | 3621 | | | 330 ns | 10+ | -1.75(9) | | | TDPAD | 1989Ra17 | Cf80Ber A6 (80) |
| 60 Nd 149 | 0 | 1.73 h | 5/2- | 0.351(10) | 1.3(3) | R | [145Nd] | AB | 1970PiZR | BAPS 15 769 (70) | | | | |
| | | | | | | | [145Nd] | AB | 1970PiZR | BAPS 15 769 (70) | | | | |
| 60 Nd 150 | 130 | 2142 ps | 2+ | 0.9(2) | -2.0(5) | R | TF | 1999BeZR | Cf99S.Agata | | | | | |
| | | | | 0.76(10) | | | TF | 1990St18 | NP A516 119 (90) | | | | | |
| | | | | +0.84(8) | | | [152Sm 122] | TF | 1987Be08 | HFI 33 37 (87) | | | | |
| | | | | 0.64(2) | | | RIGV | 1970Be36 | NP A151 401 (70) | | | | | |
| | | | | | | | CER, R | 1970Ge08 | NP A151 282 (70) | | | | | |
| | | | | 381 | | | 56 ps | 4+ | +1.8(3) | | | TF | 2001Ho02 | PL B493 7 (00) |
| | | | | | | | | | 1.76(16) | | | TF | 1990St18 | NP A516 119 (90) |
| | | | | | | | | | +1.3(2) | | | IMPAC | 1972Ku10 | NP A186 513 (72) |
| | | | | 720 | | | 12 ps | 6+ | +2.1(4) | | | TF | 2001Ho02 | PL B493 7 (00) |
| | | | | 1130 | | | 4 ps | 8+ | +4.5(10) | | | TF | 2001Ho02 | PL B493 7 (00) |
| | | | | 1599 | | | (est 3.6ps) | 10+ | +1(2) | | | TF | 2001Ho02 | PL B493 7 (00) |
| 61 Pm 138 | 0 | 3.5 m | (3+) | 3.2(9) | | | NO/S | 1992Si22 | HFI 75 471 (92) | | | | | |
| 61 Pm 143 | 0 | 265 d | 5/2+ | 3.8(5) | | | NO/S | 1963Gr10 | PR 130 1100 (63) | | | | | |
| | | | | 960 | | | 22 ns | 11/2- | +6.8(4) | | | TDPAD | 1984Go12 | ZETF 87 3 (84) |
| | | | | | | | | | +6.3(5) | [19F 197] | TDPAD | 1980Pr02 | NP A333 33 (80) | |
| | 1898 | 10.2 ns | 15/2+ | +7.7(4) | | | TDPAD | 1984Go12 | ZETF 87 3 (84) | | | | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|-------|------------|-----------|---|-------------|--------|-----------------------------------|------------------------------------|
| | | | | +7.5(5) | | | [19F 197] | TDPAD | 1980Pr02 | NP A333 33 (80) |
| 61 Pm 144 | 0 | 349 d | 5- | 1.69(14) | | | | NO/S | 1961Sh02 | PR 121 558 (61) |
| 61 Pm 145 | 0 | 17.7 y | 5/2+ | +3.80(16) | | | [147Pm] | CFBLS | 1992Al03 | JP B25 571 (92) |
| | | | | | +0.23(8) | R | | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.21(8) | | [147Pm] | CFBLS | 1992Al03 | JP B25 571 (92) |
| 61 Pm 147 | 0 | 2.623 y | 7/2+ | +2.58(7) | | | | O | 1966Re04 | PR 141 1123 (66) |
| | | | | | +0.74(20) | R | | R | 2008Py02 | Mol Phys 106 1965 (2008) |
| | | | | | +0.7(2) | | | O | 1966Re04 | PR 141 1123 (66) |
| | | | | | 0.59(16) | | | AB, R | 1966Re04 | PR 141 1123 (66) |
| | 91 | 2.5 ns | 5/2+ | +3.22(16) | | | [147Pm] | ME | 1970Ba39 | PL 32B 678 (70) |
| | | | | 3.55(10) | | | [147Pm] | ME | 1970Ba39 | PL 32B 678 (70) |
| 61 Pm 148 | 0 | 5.37 d | 1- | +2.1(2) | | | | AB | 1965Al10 | PR 138 B1356 (65) |
| | | | | 1.8(2) | | | | NO/S | 1963Gr10 | PR 130 1100 (63) |
| | | | | | +0.2(2) | R | | AB | 1965Al10 | PR 138 B1356 (65) |
| | 137 | 41.3 d | 6- | 1.8(2) | | | | NO/S | 1963Gr10 | PR 130 1100 (63) |
| 61 Pm 149 | 0 | 53.1 h | 7/2+ | 3.3(5) | | | | NO/S | 1960Ch15/1963Gr10 | PRS 259A 377 (60)/PR 130 1100 (63) |
| | 114 | 2.54 ns | 5/2+ | +2.13(15) | | | | IPAC | | IzUz 1970n2 65 (70) |
| | | | | 2.0(2) | | | | TDPAC | 1970Se11 | NP A159 494 (70) |
| | 189 | 3.24 ns | 3/2+ | +1.09(15) | | | | IPAC | | IzUz 1970n2 65 (70) |
| | | | | 2.3(6) | | | | TDPAC | 1970Se11 | NP A159 494 (70) |
| | 211 | 80 ps | 5/2+ | +2.2(4) | | | | IPAC | | IzUz 1970n2 65 (70) |
| | 270 | 2.64 ns | 7/2- | +2.19(11) | | | | IPAC | | IzUz 1970n2 65 (70) |
| | | | | 3.6(2) | | | | TDPAC | 1970Se11 | NP A159 494 (70) |
| 61 Pm 151 | 0 | 28.4 h | 5/2 + | 1.8(2) | | | | AB | 1963Bu14 | PR 132 723 (63) |
| | | | | | 2.2(9) | R | | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 1.9(3) | | | AB | 1963Bu14 | PR 132 723 (63) |
| | 256 | 0.90 ns | 3/2+ | 1.8(2) | | | | IPAC | 1977Se06 | NP A282 302 (77) |
| 62 Sm 138 | 2903 | 0.55 ns | 10+ | ~10 | | | | IPAD | 1989OgZY | Gensh. Ken. 33 145 (89) |
| 62 Sm 139 | 0 | 2.57 m | 1/2+ | -0.53(2) | | | [145,7,9Sm] | LRIMS | 1992Le09 | JP G18 1177 (92) |
| | 457 | 10.7 s | 11/2- | 1.1(2) | | | [141Sm176] | NO/S | 1992Si22 | HFI 75 471 (92) |
| 62 Sm 140 | 3172 | 19.4 ns | 10+ | -1.8(2) | | | | TDPAD | 1988Ba22 | PL 206B 404 (88) |
| | | | | | 1.7(5) | R | [154Sm 82] | TDPAD | 1985Be23 | ZP A321 403 (85) |
| | 3210 | 5.2 ns | 10+ | +12.7(9) | | | | TDPAD | 1988Ba22 | PL 206B 404 (88) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | | |
|-----------|---------|------------------------|------------|-------------|------------|-------------|----------------------------|-----------------------------------|-----------------------------------|---|--------------------------|--------------------------|
| 62 Sm 141 | 0 | 10.2 m | 1/2+ | -0.74(2) | | [145,7,9Sm] | LRIMS | 1992Le09 | JP G18 1177 (92) | | | |
| | 176 | 22.6 m | 11/2- | -0.84(2) | | [145,7,9Sm] | LRIMS | 1992Le09 | JP G18 1177 (92) | | | |
| | | | | 0.87(15) | | | NO/S | 1987BeXZ | Cf87Melb 76 (87) | | | |
| | | | | | +1.6(5) st | R | [145,7,9Sm] | LRIMS | 1992Le09 | JP G18 1177 (92) | | |
| 62 Sm 142 | 2372 | 170 ns | 7- | | | | | | | | | |
| | | | | +1.1(3) | R | [154Sm 82] | TDPAD, TF | 1985Be23/1986Da22 | ZP A321 403 (85)/PL 181B 21 (86) | | | |
| 62 Sm 143 | 0 | 8.83 m | 3/2+ | +1.01(2) | | [145,7,9Sm] | LRIMS | 1992Le09 | JP G18 1177 (92) | | | |
| | | | | | +0.4(2) | R | [145,7,9Sm] | LRIMS | 1992Le09 | JP G18 1177 (92) | | |
| 62 Sm 144 | 1660 | 85 fs | 2+ | +1.5(2) | | | TF | 1991Ba38 | NP A533 541 (91) | | | |
| | 1810 | 25 ps | 3- | +2.3(3) | | 148Sm 550 | TF | 1990Ba41 | HFI 59 133 (90) | | | |
| 62 Sm 145 | 0 | 340 d | 7/2- | -1.11(6) | | [145,7,9Sm] | LRIMS | 1992Le09 | JP G18 1177 (92) | | | |
| | | | | -1.123(11) | | [147,147Sm] | LRFS | 1990En01 | JP G16 105 (90) | | | |
| | | | | 0.92(6) | | [147Sm] | NO/S | 1969Ka21 | PR 184 1177 (69) | | | |
| | | | | | -0.6(2) | [145,7,9Sm] | LRIMS | 1992Le09 | JP G18 1177 (92) | | | |
| | | | | | -0.60(7) | R | [147,147Sm] | LRFS | 1990En01 | JP G16 105 (90) | | |
| 62 Sm 147 | 0 | 1.1x10 ¹¹ y | 7/2- | -0.812(2) | | [147,147Sm] | LRFS | 1990En01 | JP G16 105 (90) | | | |
| | | | | -0.8148(7) | | | AB | 1966Wo05 | PRS 293A 117 (66) | | | |
| | | | | | -0.27(3) | | [147,147Sm] | LRFS | 1990En01 | JP G16 105 (90) | | |
| | | | | | -0.261(7) | | | AB, R | 1992Le09/1972Ch55 | JP G18 1177 (92)/PR A6 2011 (72) | | |
| | | | | | -0.26(3) | R | | Mu-X | 2008Py02/1981Ba28 | Mol Phys 106 1956 (2008)/NP A364 446 (81) | | |
| | | | | | | | Q(147)/Q(149) = -3.4601(6) | | | AB | 1972Ch55 | PR A6 2011 (72) |
| | | | | 121 | 0.78 ns | 5/2- | -0.45(3) | | [147Sm] | ME | 1971Pa04 | PR C3 841 (71) |
| | | | | | | | | -0.5(2) | R | [147Sm] | ME | 1971Pa04 |
| 197 | 1.35 ns | 3/2- | -0.27(6) | | | IPAC | | IzUz 1970n2 65 (70) | | | | |
| 62 Sm 148 | 550 | 7.3 ps | 2+ | +0.51(4) | | [150Sm 334] | TF | 1987Ba65 | ZP A328 275 (87) | | | |
| | | | | +0.61(7) | | [152Sm 122] | TF | 1987Be08 | HFI 33 37 (87) | | | |
| | | | | | -1.0(3) | R | | CER | 1989Ra17 | JPJS 34 443 (73) | | |
| 62 Sm 149 | 0 | > 2x10 ¹⁵ y | 7/2- | -0.6677(11) | | [147,147Sm] | LRFS | 1990En01 | JP G16 105 (90) | | | |
| | | | | -0.6717(7) | | [147Sm] | AB | 1966Wo05 | PRS 293A 117 (66) | | | |
| | | | | -0.6708(10) | | [147Sm] | CFBLS | 1985Al06/1986Al33 | IzF 49 24 (85)/YadF 44 1134 (86) | | | |
| | | | | | +0.078(8) | R | [147,147Sm] | LRFS | 1990En01 | JP G16 105 (90) | | |
| | | | | | +0.075(2) | | | AB, R | 1992Le09/1972Ch55 | JP G18 1177 (92)/PR A6 2011 (72) | | |
| | | | | | +0.075(8) | | [147Sm] | AB | 1966Wo05 | PRS 293A 117 (66) | | |
| | | | | | +0.07(2) | | [147Sm] | CFBLS | 1985Al06/1986Al33 | IzF 49 24 (85)/YadF 44 1134 (86) | | |
| | | | | | | | -0.09(2) a | | | Mu-X | 1981Ba28 | NP A364 446 (81) |
| 23 | 7.6 ns | 5/2- | -0.6238(8) | | [149Sm] | ME | 1970EiZY | Cf70Reho 720 (70) | | | | |
| | | | | +1.01(9) a | R | | Mu-X | 1981Ba28 | NP A364 446 (81) | | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | |
|------------|-----------|----------|---------|--|--------------|-------------|-----------------------------------|----------------------------------|-----------------------------------|----------------------------------|-----------------|
| 62 Sm 150 | 334 | 49 ps | 2+ | +0.77(5) | -1.3(2) | R | [152Sm 122] | TF | 1987Be08 | HFI 33 37 (87) | |
| | | | | +0.82(6) | | | [152Sm 122] | TF | 1987By02 | NP A466 419 (87) | |
| | | | | | | | CERP | 1973Gr06 | PRL 30 453 (73) | | |
| | 773 | 6.6 ps | 4+ | +2.6(3) | [150Sm 334] | TF | 1993Va10 | PR C48 2640 (93) | | | |
| | | | | +1.4(2) | [152Sm 122] | TF | 1987By02 | NP A466 419 (87) | | | |
| | 1046 | 0.73 ps | 2+ | +0.7(2) | [152Sm 122] | TF | 1987By02 | NP A466 419 (87) | | | |
| | 1194 | 1.27 ps | 2+ | +0.83(14) | [152Sm 122] | TF | 1987By02 | NP A466 419 (87) | | | |
| | 1279 | (1.4 ps) | 6+ | +2.6(8) | [150Sm 334] | TF | 1993Va10 | PR C48 2640 (93) | | | |
| | | | | +2.3(5) | [152Sm 122] | TF | 1987By02 | NP A466 419 (87) | | | |
| | 62 Sm 151 | 0 | 90 y | 5/2- | -0.3611(13) | | | [147Sm] | LRFS | 1990En01 | JP G16 105 (90) |
| -0.363(2) | | | | | [147Sm] | CFBLS | 1985Al06/1986Al33 | IzF 49 24 (85)/YadF 44 1134 (86) | | | |
| 0.368(3) | | | | | [147Sm] | CFBLS | 1985Dy01 | PR C31 240 (85) | | | |
| -0.3630(5) | | | | | [147Sm] | CFBLS | 1981Do07 | ZP A302 359 (81) | | | |
| | | | | | [147Sm] | LRFS | 1990En01 | JP G16 105 (90) | | | |
| | | | | | +0.71(7) | R | [147Sm] | CFBLS | 1985Al06/1986Al33 | IzF 49 24 (85)/YadF 44 1134 (86) | |
| | | | | | +0.65(15) | [147Sm] | CFBLS | 1985Dy01 | PR C31 240 (85) | | |
| | | | | | 0.67(7) | [147Sm] | CFBLS | 1981Do07 | ZP A302 359 (81) | | |
| | | | | | +0.67(7) | [147Sm] | CFBLS | 1981Do07 | ZP A302 359 (81) | | |
| 92 | | 77 ns | 9/2+ | -0.95(5) | | | | TDPAC | 1974Dr03 | NP A223 195 (74) | |
| 105 | | 0.48 ns | 3/2- | +0.31(11) | | | | IPAC | 1971Be23 | IzF 35 135 (71) | |
| 168 | | 0.38 ns | 5/2+ | +1.8(5) | | | | IPAC, R | 1974Dr03 | NP A223 195 (74) | |
| 62 Sm 152 | | 122 | 1.40 ns | 2+ | +0.80(6) | | | | IPAC | 1992De29 | CJP 70 268 (92) |
| | +0.84(5) | | | | [149Sm] | ME | 1967At04 | PL 26B 81 (67) | | | |
| | | | | | -1.666(16) a | R | | Mu-X | 1979Po05 | NP A316 295 (79) | |
| | | | | | -1.702(17) a | | | Mu-X | 1978Ya11 | PR C18 1474 (78) | |
| | 366 | 56.6 ps | 4+ | +1.7(2) | [152Sm 122] | TF | 1987By02 | NP A466 419 (87) | | | |
| | | | | +1.22(15) | | IMPAC | 1972Ku10 | NP A186 513 (72) | | | |
| | 707 | 10.1 ps | 6+ | +2.4(3) | [152Sm 122] | TF | 1987By02 | NP A466 419 (87) | | | |
| | 810 | 7.2 ps | 2+ | +0.8(2) | [152Sm 122] | TF | 1987By02 | NP A466 419 (87) | | | |
| | 1086 | 0.85 ps | 2+ | +0.8(2) | [152Sm 122] | TF | 1987By02 | NP A466 419 (87) | | | |
| | 1125 | 3.3 ps | 8+ | +2.8(5) | [152Sm 122] | TF | 1987By02 | NP A466 419 (87) | | | |
| | 1609 | 1.38 ps | 10+ | +4(2) | [152Sm 122] | TF | 1987By02 | NP A466 419 (87) | | | |
| | gsb | | <10+ | g(0) = +0.38(3) $\alpha \times 10^3 = 0.4(2)$ | | | | TF | 1982An10 | NP A383 509 (82) | |
| | 62 Sm 153 | 0 | 46.8 h | 3/2+ | -0.021(3) | | | [147,147Sm] | LRFS | 1990En01 | JP G16 105 (90) |
| | | | | | -0.0257(14) | [147Sm] | ABLFS | 1984Ea02 | JP G10 L271 (84) | | |
| -0.0216(1) | | | | | | | | AB | 1976Fu06 | JPCR 5 835 (76)/PC Wadding (68) | |
| | | | | | +1.30(12) | R | [147,147Sm] | LRFS | 1990En01 | JP G16 105 (90) | |
| | | | | | +1.26(13) | [147Sm] | ABLFS | 1984Ea02 | JP G10 L271 (84) | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|---------|--------------|---------|--|------------------------|------------------------|-------------|--------|--------------------------|---------------------------------|
| 62 Sm 154 | 82 | 3.01 ns | 2+ | +0.78(4) | | | [149Sm] | ME | 1969Wh04 | PR 186 1280 (69) |
| | | | | | -1.87(4) a | R | | Mu-X | 1979Po05 | NP A316 295 (79) |
| | 267 | 165 ps | 4+ | +1.35(15) | | | | IMPAC | 1972Ku10 | NP A186 513 (72) |
| | 544 | 23.4 | 6+ | +1.9(3) | | | | IMPAC | 1972Ku10 | NP A186 513 (72) |
| | gsb | | <10+ | g(0) = +0.39(3) $\alpha \times 10^3 = -1.3(15)$ | | | | TF | 1982An10 | NP A383 509 (82) |
| 62 Sm 155 | 0 | 22.4 m | 3/2- | | 1.13(13) | R | [153Sm] | AB | 1976Fu06 | JPCR 5 835 (76)/PC Wadding (68) |
| 63 Eu 138 | 0 | 12.1 s | (6-) | 5.3(7) | | | [142Eu] | NO/S | 1992Si22 | HFI 75 471 (92) |
| 63 Eu 139 | 0 | 17.9s | (11/2-) | 6.1(8) | | | [142Eu] | NO/S | 1992Si22 | HFI 75 471 (92) |
| 63 Eu 140 | 0 + x | 1.54 s | 1(+) | +1.365(13) | | | [151Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | | +0.31(4) | R | [153Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| 63 Eu 141 | 0 | 40 s | 5/2+ | +3.494(8) | | | [151Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | | +0.85(4) | R | [153Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| 63 Eu 142 | 0 | 2.4 s | 1+ | +1.54(2) | | | [151Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | | +0.12(5) | R | [153Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | 180 | 73 s | 8- | +2.978(11) | | | [151Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | | +1.41(6) | R | [153Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | 282 + x | 6.2 ns | 8+ | (+)4.1(2) | | | | TDPAD | 1993Bi13 | ZP A346 181 (93) |
| 63 Eu 143 | 0 | 2.6 m | 5/2+ | +3.673(8) | | | [151Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | | +0.51(3) | R | [153Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| 63 Eu 144 | 0 | 10 s | 1+ | +1.893(13) | | | [151Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | | +0.10(3) | R | [153Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| 63 Eu 145 | 0 | 5.93 d | 5/2+ | +3.999(3) | | | [151Eu] | CFBLS | 1993HuZU | Cf93Bern 209(93) |
| | | | | +3.993(7) | | | [151 Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | 3.2(5) | | | | NO/S | 1983Kr18 | HFI 15 73 (83) |
| | | | | | Q/Q(153Eu) = 0.1168(9) | | [151Eu] | CFBLS | 1993HuZU | Cf93Bern 209(93) |
| | | | | | +0.29(2) | R | [151 Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | 716 | 0.49 μ s | 11/2- | +7.46(4) | | | [19F 197] | TDPAD | 1980KI07 | NP A350 61 (80) |
| 63 Eu 146 | 0 | 4.59 d | 4- | +1.421(8) | | | [151Eu] | CFBLS | 1993HuZU | Cf93Bern 209(93) |
| | | | | +1.425(11) | | | [151 Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | | 1.3(2) | | | NO/S | 1985Va21 | Phca 133B 138 (85) |
| | | | | | 1.7(3) | | | NO/S | 1983Kr18 | HFI 15 73 (83) |
| | | | | | | Q/Q(153Eu) = -0.074(2) | [153Eu] | CFBLS | 1993HuZU | Cf93Bern 209(93) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | R | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-----|--------------|-------|------------|--------------------------|---|-------------|---------|-----------------------------------|---------------------------------|
| | | | | | -0.18(6) | R | [151 Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| 63 Eu 147 | 0 | 24.1 d | 5/2+ | +3.736(6) | | | [151Eu] | CFBLS | 1993HuZU | Cf93Bern 209(93) |
| | | | | +3.725(7) | | | [151 Eu] | CFBLS | 1986Al33 | YadF 44 1134 (86) |
| | | | | +3.724(8) | | | [151 Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | 4.0(9) | | | | NO/S | 1985Va21 | Phca 133B 138 (85) |
| | | | | 3.1(4) | | | | NO/S | 1983Kr18 | HFI 15 73 (83) |
| | | | | 3.7(5) | | | | NO/S | 1979Er13 | IzF 43 2176 (79) |
| | | | | | Q/Q(153Eu) = 0.218(2) | | [153Eu] | CFBLS | 1993HuZU | Cf93Bern 209(93) |
| | | | | | +0.49(3) | | [151 Eu] | CFBLS | 1986Al33 | YadF 44 1134 (86) |
| | | | | | +0.55(3) | R | [151 Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | 635 | 765 ns | 11/2- | +7.05(3) | | | | TDPAD | 1980Ba67 | PL 77A 365 (80) |
| | | | | +7.04(6) | | | [19F 197] | TDPAD | 1980KI07 | NP A350 61 (80) |
| 63 Eu 148 | 0 | 54.5 d | 5- | +2.340(10) | | | [151 Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | 2.2(4) | | | | NO/S | 1985Va21 | Phca 133B 138 (85) |
| | | | | 2.1(3) | | | | NO/S | 1983Kr18 | HFI 15 73 (83) |
| | | | | | +0.35(6) | R | [151 Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | 720 | 235 ns | 9+ | +6.12(5) | | | | TDPAD | 1980Ba67 | PL 77A 365 (80) |
| 63 Eu 149 | 0 | 93.1 d | 5/2+ | +3.576(10) | | | [151 Eu] | CFBLS | 1986Al33 | YadF 44 1134 (86) |
| | | | | +3.565(6) | | | [151 Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | | +0.70(8) | | [151 Eu] | CFBLS | 1986Al33 | YadF 44 1134 (86) |
| | | | | | +0.75(2) | R | [151 Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | 497 | 2.43 μ s | 11/2- | +7.0(3) | | | [19F 197] | TDPAD | 1980KI07 | NP A350 61 (80) |
| 63 Eu 150 | 0 | 35.8 y | 5(-) | +2.708(11) | | | [151 Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | | +1.13(5) | R | [151 Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| 63 Eu 151 | 0 | stable | 5/2+ | +3.4717(6) | | | | AB/D | 1965Ev08 | PRS 289A 114 (65) |
| | | | | | Q/Q(153Eu) = 0.3918(2) | | [153Eu] | CFBLS | 1993HuZU | Cf93Bern 209(93) |
| | | | | | Q/Q(153Eu) = 0.39191(12) | | [153Eu] | CFBLS | 1993Mo04 | PRL 70 541 (93) |
| | | | | | Q/Q(153Eu)=0.393(9) | | [153Eu] | O | 1965Wi09 | PL 16 156 (65) |
| | | | | | 0.83 e,st | | | ABLDF | 1987Se12 | PR A36 1983 (87) |
| | | | | | +0.95(3) | | [153Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | | +0.903(10) a | R | | Mu-X, O | 1984Ta04/1965Wi09 | PR C29 1830 (84)/PL 16 156 (65) |
| | | | | | 1.53(5) | | | ABLFS | 1981Br17 | ZP A302 291 (81) |
| | | | | | 1.32(13) | | | CFBLS | 1981Ar25 | PS 24 747 (81) |
| | 22 | 9.5 ns | 7/2+ | +2.591(2) | | | [151Eu] | ME | 1972Cr09 | ZP A256 155 (72) |
| | | | | | 1.28(2) a | R | | Mu-X | 1984Ta05 | PR C29 1897 (84) |
| | | | | | +1.19(2) | | [151Eu] | ME, R | 1976St73 | JPCR 5 1093 (76) |
| 63 Eu 152 | 0 | 13.54 y | 3- | -1.9401(8) | | | [151Eu] | CFBLS | 1993HuZU | Cf93Bern 209(93) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-----|----------|------|--------------------|------------------------|---------------|------------|--|--|
| | | | | -1.950(12) | | [151Eu] | CFBLS | 1986Al33 | YadF 44 1134 (86) |
| | | | | -1.96(6) | | [151Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | -1.9414(13) | | [151Eu] | AB, O, R | 1963Al06/1970He09 | PR 129 1344(63)/PL 31B 295 (70)/ ZP 245 411 (71) |
| | | | | | Q/Q(153Eu) = 1.1822(5) | [153Eu] | CFBLS | 1971He18 | ZP 245 411 (71) |
| | | | | | +2.72(3) | R [151Eu] | CFBLS | 1993HuZU | Cf93Bern 209(93) |
| | | | | | +2.5(2) | [151Eu] | CFBLS | 1986Al33 | YadF 44 1134 (86) |
| | | | | | | [151Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| 63 Eu 153 | 0 | stable | 5/2+ | +1.5324(3) | | [151Eu] | CFBLS | 1993HuZU | Cf93Bern 209(93) |
| | | | | +1.56(4) | | [151Eu] | CFBLS | 1986Al33 | YadF 44 1134 (86) |
| | | | | +1.538(13) | | [151Eu] | CFBLS | 1985Ah02 | ZP A321 35 (85) |
| | | | | +1.5330(8) | | | AB/D | 1965Ev08 | PRS 289A 114 (65) |
| | | | | | 2.22 e.st | | ABLDF | 1987Se12 | PR A36 1983 (87) |
| | | | | | +2.28(9) | [151Eu] | CFBLS | 1986Al33 | YadF 44 1134 (86) |
| | | | | | +2.41(2) a | R | Mu-X, O | 1984Ta04/1965Wi09 | PR C29 1830 (84)/PL 16 156 (65) |
| | | | | | 3.92(12) | | ABLFS | 1981Br17 | ZP A302 291 (81) |
| | | | | | 3.6(4) | | CFBLS | 1981Ar25 | PS 24 747 (81) |
| | 83 | 0.80 ns | 7/2+ | +1.81(6) | | [153Eu] | ME | 1969Ri02 | ZP A218 223 (69) |
| | | | | | 0.44(2) a | R | Mu-X | 1984Ta04 | PR C29 1830 (84) |
| | 97 | 180 ps | 5/2- | +3.2(2) or -0.5(2) | | [153Eu] | ME | 1966At01 | PR 145 915 (66) |
| | 103 | 3.9 ns | 3/2+ | +2.048(6) | | [153Eu] | ME, IPAC | 1972Cr09/1975Si07 | ZP 256 155 (72)/JP G1 467 (75) |
| | | | | | 1.253(12) | R [153Eu] | ME | 1973Ar19 | PL 44A 279 (73) |
| 63 Eu 154 | 0 | 8.6 y | 3- | -2.005(6) | | [153Eu] | EPR | 1957Ab05 | PR 108 58 (57) |
| | | | | -2.02(5) | | [151Eu] | CFBLS | 1986Al33 | YadF 44 1134 (86) |
| | | | | | +2.85(10) | R [151Eu] | CFBLS | 1986Al33 | YadF 44 1134 (86) |
| | | | | | +3.4(3) | [152Eu] | NO/S, O, R | 1962Ju06/1970He09/ 1971He18 | PR 128 1733 (62)/PL 31B 295 (70)/ ZP 245 411 (71) |
| 63 Eu 155 | 0 | 4.68 y | 5/2+ | +1.520(2) | | [153Eu] | ABLFS | 2000Ga35 | EurPJ D11 341 (00) |
| | | | | +1.52(2) | | [151,153Eu] | CFBLS | 1990Al34 | ZP A337 257 (90) |
| | | | | 1.519(10) | | [153Eu] | ABLFS | 1986Al33 | APPo 30 1415 (99) |
| | | | | +1.56(10) | | [151Eu] | CFBLS | 1990Al34 | YadF 44 1134 (86) |
| | | | | | +2.49(2) | [153Eu] | ABLFS | 2000Ga35 | EurPJ D11 341 (00) |
| | | | | | 2.51(6) | [153Eu] | ABLFS | 1999Ga36 | APPo 30 1415 (99) |
| | | | | | +2.5(3) | R [151,153Eu] | CFBLS | 1990Al34 | ZP A337 257 (90) |
| | | | | | +2.3(2) | [151Eu] | CFBLS | 1986Al33 | YadF 44 1134 (86) |
| | 104 | 0.104 ns | 5/2- | +9.6(10) | | | IPAC | 1971Be23 | IzF 35 135 (71)/IzF 35 2295 (71) |
| 63 Eu 157 | 0 | 15.2 h | 5/2+ | +1.50(2) | | [151,153Eu] | CFBLS | 1990Al34 | ZP A337 257 (90) |
| | | | | | +2.6(3) | R [151,153Eu] | CFBLS | 1990Al34 | ZP A337 257 (90) |
| 63 Eu 158 | 0 | 45.9 m | 1(-) | +1.44(2) | | [151,153Eu] | CFBLS | 1990Al34 | ZP A337 257 (90) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | R | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-------|---------|-------|------------|-----------|---|-------------|-------------|-----------------------------------|-----------------------------------|
| | | | | | +0.66(14) | R | [151,153Eu] | CFBLS | 1990AI34 | ZP A337 257 (90) |
| 63 Eu 159 | 0 | 18.1 m | 5/2+ | +1.38(2) | | | [151,153Eu] | CFBLS | 1990AI34 | ZP A337 257 (90) |
| | | | | | +2.7(3) | R | [151,153Eu] | CFBLS | 1990AI34 | ZP A337 257 (90) |
| 64 Gd 144 | 3433 | 130 ns | 10+ | +12.76(14) | | | | TDPAD | 1979Ha15 | PRL 42 1451 (79) |
| | | | | | -1.40(6) | R | [155Gd] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -1.46(6) | | | TDPAD, TFLD | 1982Ha22/1985Da20 | NP A379 287 (82)/NP A443 135 (85) |
| 64 Gd 145 | 0 | 22 m | 1/2+ | -0.74(5) | | | | LS | 2005BA64 | PR C72 017301 (05) |
| | 749 | 85 s | 11/2- | -1.0(2) | | | | LS | 2005BA64 | PR C72 017301 (05) |
| 64 Gd 146 | 1580 | 1.1 ns | 3- | +2.1(9) | | | | TDPAD | 1979Ke03 | ZP A290 229 (79) |
| | 2982 | 6.7 ns | 7- | +9.0(2) | | | | TDPAD | 1979Ha15 | PRL 42 1451 (79) |
| | | | | +8.3(4) | | | | TDPAD | 1979Ke03 | ZP A290 229 (79) |
| | | | | +7.9(6) | | | | TDPAD | 1979Fa01 | PL 80B 190 (79) |
| | 8916 | 4.1 ns | (19+) | +12(2) | | | | TDPAD | 1979Ha15 | PRL 42 1451 (79) |
| 64 Gd 147 | 0 | 38.1 h | 7/2- | 1.02(9) | | | | NO/S | 1987Kr11 | HFI 34 69 (87) |
| | | | | 1.2(2) | | | | NO/S | 1986Va16 | NP A455 189 (86) |
| | 997 | 22.2 ns | 13/2+ | +0.49(2) | | | | TDPAD | 1987Da27 | PL 199B 26 (87) |
| | | | | -0.24(7) | | | | TDPAD | 1979Ha15 | PRL 42 1451 (79) |
| | | | | | -0.70(8) | R | [155Gd] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.73(7) | | | TDPAD, TFLD | 1982Ha22/1985Da20 | NP A379 287 (82)/NP A443 135 (85) |
| | 2760 | 4.4 ns | 21/2+ | +7.6(12) | | | | TDPAD | 1979Ha15 | PRL 42 1451 (79) |
| | 3582 | 27 ns | 27/2- | +11.3(2) | | | | TDPAD | 1979Ha15 | PRL 42 1451 (79) |
| | | | | +11.9(3) | | | | TDPAD | 1979Fa01 | PL 80B 190 (79) |
| | | | | | -1.21(9) | R | [155Gd] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -1.26(8) | | | TDPAD, TFLD | 1982Ha22/1985Da20 | NP A379 287 (82)/NP A443 135 (85) |
| | 8587 | 510 ns | 49/2+ | +10.9(2) | | | | TDPAD | 1979Ha15 | PRL 42 1451 (79) |
| | | | | | -3.00(18) | R | [155Gd] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -3.24(18) | | | TDPAD, TFLD | 1982Ha22/1985Da20 | NP A379 287 (82)/NP A443 135 (85) |
| | 10993 | 0.8 ns | 59/2- | +11(2) | | | | TF | 1989Ha15 | PR 39C 2237 (89) |
| 64 Gd 148 | 2695 | 16.5 ns | 9- | -0.16(2) | | | | TDPAD | 1987Da27 | PL 199B 26 (87) |
| | | | | -0.25(8) | | | | TDPAD | 1979Ha15 | PRL 42 1451 (79) |
| | | | | | 0.96(5) | R | [155Gd] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 1.01(5) | | | TDPAD | 1982Ha22 | NP A379 287 (82) |
| 64 Gd 149 | 0 | 9.4 d | 7/2- | 0.88(4) | | | | NO/S | 1987Kr11 | HFI 34 69 (87) |
| | | | | 0.97(6) | | | | NO/S | 1987Be33 | HFI 34 119 (87) |
| | | | | 1.1(2) | | | | NO/S | 1985AI21 | NP A445 189 (86) |
| | 165 | 1.7 ns | 5/2- | -0.9(2) | | | | IPAC, TDPAC | 1977GrZF | Cf77Tokyo 379 (77) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|---------|---------|----------|------------|-------------|-------------|--------------------------|-----------------------------------|---------------------------------|---------------------------------|
| 64 Gd 151 | 0 | 120 d | 7/2- | 0.77(6) | | | NO/S | 1987Be33 | HFI 34 119 (87) | |
| | 109 | 3.0 ns | 5/2- | -1.08(13) | | | IPAC, TDPAC | 1977GrZF | Cf77Tokyo 379 (77) | |
| | 395 | 0.31 ns | 3/2- | -1.2(2) | | | IPAC | 1976Ba26/1976Ba59 | ZP A277 217 (76)/HFI 2 323 (76) | |
| 64 Gd 152 | 344 | 28.6 ps | 2+ | +0.96(8) | | [156Gd 89] | RIGV, R | 1974Ar23 | NP A233 385 (74) | |
| | | | | +0.90(8) | | [152Sm 122] | TF | 1987Be08 | HFI 33 37 (87) | |
| | 755 | 6.1 ps | 4+ | (+2.0(5) | | [152Gd 344] | TF | 1999Ma06 | PR C59 665 (99) | |
| 64 Gd 153 | 0 | 241.6 d | 3/2- | 0.38(8) | | | NO/S | 1985Al21 | NP A445 189 (86) | |
| | 110 | 1.97 ns | 5/2- | +0.40(15) | | | IPAC, TDPAC | 1977GrZF | Cf77Tokyo 379 (77) | |
| | 129 | 2.50 ns | 3/2- | +0.37(7) | | | IPAC | 1977Ba63 | HFI 3 423 (77) | |
| 64 Gd 154 | 123 | 1.17 ns | 2+ | +0.96(6) | | [156Gd 89] | RIGV, R | 1974Ar23 | NP A233 385 (74) | |
| | | | | +0.86(6) | | [156Gd 89] | TDPAC | 1970Wa26 | ZP A238 69 (70) | |
| | | | | | -1.82(4) a | R | [155Gd] | Mu-X | 1983La08 | PR C27 1772 (83) |
| 64 Gd 155 | 0 | stable | 3/2- | -0.2572(4) | | | ENDOR | 1978Va24 | JP C11 203 (78) | |
| | | | | -0.2591(5) | | | AB/D | 1969Un02 | JP B2 122 (69) | |
| | | | | | +1.27(5) st | | ABLS | 1990Ji06 | PR A42 1416 (90) | |
| | | | | | 1.27(3) a | R | Mu-X | 1983La08 | PR C27 1772 (83) | |
| | | | | | +1.30(2) a | | Mu-X, AB | 1982Ta01 | PL 108B 8 (82)/JP B2 122 (69) | |
| | 60 | 0.19 ns | 5/2- | | -0.44(2) a | | Mu-X | 1983La08 | PR C27 1772 (83) | |
| | 87 | 6.35 ns | 5/2+ | -0.525(2) | | [155Gd] | ME | 1978Co23 | HFI 5 479 (78) | |
| | | | | -0.518(5) | | [155Gd] | ME | 1977Va21 | Phca 92B 52 (77) | |
| | | | | -0.533(4) | | [155Gd] | ME | 1973Ar03 | PL 43B 380 (73) | |
| | | | | | +0.110(8) | R | [155Gd] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.13(3) | | [155Gd] | ME | 1978Co23 | HFI 5 479 (78) |
| | | | | | +0.111(7) | | [155Gd] | ME | 1977Va21 | Phca 92B 52 (77) |
| | | | | | +0.113(8) | | [155Gd] | ME | 1973Ar03 | PL 43B 380 (73) |
| | 105 | 1.18 ns | 3/2+ | +0.143(5) | | [155Gd] | ME | 1978Co23 | HFI 5 479 (78) | |
| | | | | | +1.27(5) | R | [155Gd] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | +0.96(3) | | [155Gd] | ME | 1978Co23 | HFI 5 479 (78) | |
| | | | | +1.30(4) | | [155Gd] | ME | 1974Ar23 | NP A233 385 (74) | |
| 146 | 101 ps | 7/2- | +0.4(4) | | [156Gd] | TF | 1998St28 | NP A642 361 (98) | | |
| 252 | 58 ps | 9/2- | +1.2(3) | | [156Gd] | TF | 1998St28 | NP A642 361 (98) | | |
| 392 | 23 ps | 11/2- | +1.5(3) | | [156Gd] | TF | 1998St28 | NP A642 361 (98) | | |
| 534 | 14.6 ps | 13/2- | +1.9(3) | | [156Gd] | TF | 1998St28 | NP A642 361 (98) | | |
| 730 | 5.8 ps | 15/2- | +2.6(5) | | [156Gd] | TF | 1998St28 | NP A642 361 (98) | | |
| 897 | 4.9 ps | 17/2- | +2.2(9) | | [156Gd] | TF | 1998St28 | NP A642 361 (98) | | |
| 1142 | 2.4 ps | 19/2- | +2.9(10) | | [156Gd] | TF | 1998St28 | NP A642 361 (98) | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | | |
|-----------|--------|---------|--|------------|--------------|-------------|--------------------------|-----------------------------------|-----------------------------------|---------------------------------|--------------------------|--------------------------|
| 64 Gd 156 | 89 | 2.21 ns | 2+ | +0.82(14) | | [158Gd 261] | TF | 1991St01 | ZP A338 135 (91) | | | |
| | | | | +0.774(8) | | [155Gd] | ME | 1974Ar23 | NP A233 385 (74) | | | |
| | | | | | -1.93(4) a | R | | Mu-X | 1983La08 | PR C27 1772 (83) | | |
| | | | | | -1.96(4) | | [155Gd] | ME | 1974Ar23 | NP A233 385 (74) | | |
| | | | | | | | [156Gd 89] | TF | 1992Br07 | PR C45 1549 (92) | | |
| | 288 | 112 ps | 4+ | +1.68(12) | | [156Gd 89] | TF | 1990Ba39 | HFI 59 125 (90) | | | |
| | | | | +1.76(16) | | [156Gd 89] | TF | 1990Sc10 | ZP A335 387 (90) | | | |
| | | | | +1.31(8) | | [BhfGd(Fe)] | IPAC | 1991St01 | ZP A338 135 (91) | | | |
| | | | | +1.63(15) | | [158Gd 261] | TF | 1991St01 | ZP A338 135 (91) | | | |
| | | | | +1.55(14) | | [156Gd 89] | TF | 1991St01 | ZP A338 135 (91) | | | |
| | 585 | 16 ps | 6+ | +1.24(8) | | | IPAC | 1988Al33 | ZP A331 277 (88) | | | |
| | | | | +2.4(2) | | [156Gd 89] | TF | 1992Br07 | PR C45 1549 (92) | | | |
| | | | | +2.3(4) | | [158Gd 261] | TF | 1991St01 | ZP A338 135 (91) | | | |
| | | | | +2.2(4) | | [156Gd 89] | TF | 1991St01 | ZP A338 135 (91) | | | |
| | | | | +1.5(13) | | | IPAC | 1988Al33 | ZP A331 277 (88) | | | |
| 965 | 4.3 ps | 8+ | +2.7(3) | | [156Gd 89] | TF | 1992Br07 | PR C45 1549 (92) | | | | |
| 1511 | 190 ps | 4+ | +3.24(11) | | | IPAC | 1988Al33 | ZP A331 277 (88) | | | | |
| gsb | | <10+ | $g(10+)/g(2+) = 0.89(12)$ $\alpha \times 10^3 = -1.1(12)$ | | | | TF | 1983Ha24 | NP A406 339 (83) | | | |
| 64 Gd 157 | 0 | stable | 3/2- | -0.3398(7) | | [155Gd] | AB/D, ENDOR | 1969Un02/1969Ba15 | JP B2 122 (69)/JP C2 862 (69) | | | |
| | | | | -0.3373(6) | | | ENDOR | 1978Va24 | JP C11 203 (78) | | | |
| | | | | | +1.36(6) st | | | ABLS | 1990Ji06 | PR A42 1416 (90) | | |
| | | | | | +1.35(3) a | R | | Mu-X | 1983La08 | PR C27 1772 (83) | | |
| | | | | | +1.36(2) a | | | Mu-X, O | 1982Ta01/1959Ka10 | PL 108B 8 (82)/ZETF 37 882 (59) | | |
| | | | | | 1.34(7) st | | | O | 1979Cl04 | ZP A289 361 (79) | | |
| | | | | | +1.38(2) | | [155Gd] | AB | 1969Un02 | JP B2 122 (69) | | |
| | | | | 55 | 0.13 ns | 5/2- | | -0.46(2) a | | Mu-X | 1983La08 | PR C27 1772 (83) |
| | | | | 64 | 0.46 μ s | 5/2+ | -0.464(11) | | [157Gd] | ME, R | 1974Ar23 | NP A233 385 (74) |
| | | | | | | | | +2.43(7) | R | [157Gd] | ME | 1974Ar23 |
| 64 Gd 158 | 80 | 2.52 ns | 2+ | +0.78(6) | | [158Gd 261] | TF | 1992Br07 | PR C45 1549 (92) | | | |
| | | | | +0.762(8) | | | ME, R | 1988Al33 | ZP A331 277 (88) | | | |
| | | | | +0.9(2) | | [158Gd 261] | TF | 1991St01 | ZP A338 135 (91) | | | |
| | | | | +0.8(2) | | [156Gd 89] | TF | 1991St01 | ZP A338 135 (91) | | | |
| | | | | | -2.01(4) a | R | | Mu-X | 1983La08 | PR C27 1772 (83) | | |
| | | | | | -1.96(4) | | [157Gd] | ME | 1974Ar23 | NP A233 385 (74) | | |
| | 261 | 148 ps | 4+ | +1.60(12) | | [158Gd 261] | TF | 1992Br07 | PR C45 1549 (92) | | | |
| | | | | +1.4(2) | | {156Gd 89} | TF | 1990Ba39 | HFI 59 125 (90) | | | |
| | | | | +1.55(12) | | {156Gd 89} | TF | 1991St01 | ZP A338 135 (91) | | | |
| | 539 | 16 ps | 6+ | +1.64(6) | | | IPAC | 1988Al33 | ZP A331 277 (88) | | | |
| | | | | +2.5(2) | | {158Gd 261} | TF | 1992Br07 | PR C45 1549 (92) | | | |
| | | | | 2.4(3) | | [158Gd 261] | TF | 1991St01 | ZP A338 135 (91) | | | |
| | | | 2.3(3) | | [156Gd 89] | TF | 1991St01 | ZP A338 135 (91) | | | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-------|---------|---------|--|------------|-------------|---------|--------------------------|---------------------------------|
| | 904 | 5.1 | 8+ | 3.4(4) | | {158Gd 261} | TF | 1992Br07 | PR C45 1549 (92) |
| | gsb | | <10+ | $g(10+)/g(2+) = 0.83(11)$ $\alpha \times 10^3 = -1.7(11)$ | | | TF | 1983Ha24 | NP A406 339 (83) |
| 64 Gd 159 | 0 | 18.6 h | 3/2- | -0.44(3) | | | NO/S | 1971Kr19 | PR C4 1942 (71) |
| 64 Gd 160 | 75 | 2.70 ns | 2+ | +0.72(4) | | [156Gd 89] | RIGV, R | 1974Ar23 | NP A233 385 (74) |
| | | | | | -2.08(4) a | R | Mu-X | 1983La08 | PR C27 1772 (83) |
| | 248 | | 4+ | 1.6(2) | | [158Gd 261] | TF | 1991St01 | ZP A338 135 (91) |
| | | | | 1.5(2) | | [156Gd 89] | TF | 1991St01 | ZP A338 135 (91) |
| | 515 | | 6+ | 2.4(3) | | [158Gd 261] | TF | 1991St01 | ZP A338 135 (91) |
| | | | | 2.3(3) | | [156Gd 89] | TF | 1991St01 | ZP A338 135 (91) |
| | gsb | | <10+ | $g(10+)/g(2+) = 0.93(13)$ $\alpha \times 10^3 = -0.7(12)$ | | | TF | 1983Ha24 | NP A406 339 (83) |
| 65 Tb 147 | 0 | 1.7 h | 1/2+ | +1.70(5) | | [159Tb] | CFBLS | 1990Al36 | ZP A337 367 (90) |
| 65 Tb 148 | 0 | 60 m | 2- | -1.75(2) | | [159Tb] | CFBLS | 1990Al36 | ZP A337 367 (90) |
| | | | | | -0.3(2) | R | CFBLS | 1990Al36 | ZP A337 367 (90) |
| 65 Tb 149 | 0 | 4.12 h | 1/2+ | +1.35(2) | | [159Tb] | CFBLS | 1990Al36 | ZP A337 367 (90) |
| | 2518 | 3.5 ns | (27/2)+ | 4.9(12) | | | IPAD | 1990Ad02 | JPJa 59 66 (90) |
| 65 Tb 150 | 0 + x | 3.48 h | 2(-) | -0.90(2) | | [159Tb] | CFBLS | 1990Al36 | ZP A337 367 (90) |
| | | | | | 0.00(13) | R | CFBLS | 1990Al36 | ZP A337 367 (90) |
| 65 Tb 151 | 0 | 17.6 h | 1/2(+) | +0.919(6) | | [159Tb] | CFBLS | 1990Al36 | ZP A337 367 (90) |
| 65 Tb 152 | 0 | 17.5 h | 2- | -0.58(2) | | [159Tb] | CFBLS | 1990Al36 | ZP A337 367 (90) |
| | | | | | +0.34(13) | R | CFBLS | 1990Al36 | ZP A337 367 (90) |
| | | | | | +0.5(16) | | NO/S | 1983Be03 | JP G9 213 (83) |
| 65 Tb 153 | 0 | 2.34 d | 5/2+ | +3.44(2) | | [159Tb] | CFBLS | 1990Al36 | ZP A337 367 (90) |
| | | | | 3.5(7) | | [159Tb] | NO/S | 1983Be03 | JP G9 213 (83) |
| | | | | | +1.08(14) | R | CFBLS | 1990Al36 | ZP A337 367 (90) |
| 65 Tb 154 | 0 + x | 9.4 h | 3- | +1.6(2) | | [159Tb] | CFBLS | 1990Al36 | ZP A337 367 (90) |
| | | | | 1.8(4) | | [159Tb] | NO/S | 1983Be03 | JP G9 213 (83) |
| | | | | | +2.4(13) | R | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +2.9(15) | | NO/S | 1983Be03 | JP G9 213 (83) |
| | 0 + y | 22.7 h | 7- | 0.9(3) | | [est] | NO/S | 1983Be03 | JP G9 213 (83) |
| 65 Tb 155 | 0 | 5.32 d | 3/2+ | +2.01(2) | | [159Tb] | CFBLS | 1990Al36 | ZP A337 367 (90) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|---------|---------------------|-------------|---|--------------|------------|-----------------------------------|---------------------------------|
| | | | | 2.0(2) | | | [159Tb] | NO/S | 1979Du08 | CzJP B29 361 (79) |
| | | | | | +1.41(6) | R | [159Tb] | CFBLS | 1990Al36 | ZP A337 367 (90) |
| 65 Tb 156 | 0 | 5.35 d | 3- | 1.7(2) | | | [159Tb] | NO/S | 1983Be03 | JP G9 213 (83) |
| | | | | 1.9(3) | | | [159Tb] | NO/S | 1979Ri17 | CzJP B29 620 (79) |
| | | | | 1.4(2) | | | | NO/S | 1962Lo01 | NP 30 452 (62) |
| | | | | | +2.3(8) | R | [159Tb] | NO/S | 1983Be03 | JP G9 213 (83) |
| | | | | | +3.0(9) | | [159Tb] | NO/S | 1979Ri17 | CzJP B29 620 (79) |
| | | | | | +1.4(5) | | [159Tb] | NO/S | 1962Lo01 | NP 30 452 (62) |
| 65 Tb 157 | 0 | 99 y | 3/2+ | +2.01(2) | | | [159Tb] | CFBLS | 1990Al36 | ZP A337 367 (90) |
| | | | | 2.0(1) | | | [159Tb] | EPR | 1968Ea04 | PR 170 1083 (68) |
| | | | | | +1.40(8) | R | [159Tb] | CFBLS | 1990Al36 | ZP A337 367 (90) |
| 65 Tb 158 | 0 | 150 y | 3- | +1.758(7) | | | [159Tb] | EPR | 1968Ea04 | PR 170 1083 (68) |
| | | | | | +2.7(5) st | R | | NO/S, EPR | 1968Ea04 | PR 170 1083 (68) |
| 65 Tb 159 | 0 | stable | 3/2+ | +2.014(4) | | | | EPR, ENDOR | 1965Ba49 | PRS 286A 352 (65) |
| | | | | | +1.432(8) a | R | | Mu-X. AB | 1984Ta04/1970Ch26 | PR C29 1830 (84)/PR A2 316 (70) |
| | 58 | 53.5 ps | 5/2- | 3.9(2) | | | | IPAC | 1972Be94 | Duzb 1972n1 32 (72) |
| | | | | 1.62(9) or 2.32(13) | | | [159Tb] | ME | 1966At05 | NP 89 433 (66) |
| 65 Tb 160 | 0 | 72.1 d | 3- | 1.790(7) | | | [159Tb] | NMR/ON | 1987Ma42 | PRL 59 1764 (87) |
| | | | | +1.702(8) | | | [159Tb] | EPR | 1968Ea04 | PR 170 1083 (68) |
| | | | | 1.5(6) | | | [159Tb] | NO/S | 1983Be03 | JP G9 213 (83) |
| | | | | | 3.85(5) | R | [159Tb] | NMR/ON | 1987Ma42 | PRL 59 1764 (87) |
| | | | | | 3.56(10) | | [159Tb] | NMR/ON | 1986Ro07 | PRL 56 1976 (88) |
| 65 Tb 161 | 0 | 6.9 d | 3/2+ | 2.2(1) | | | [159Tb] | NO/S | 1983Ri15 | HFI 15 83 (83) |
| | | | | | +1.3(6) | | [159Tb] | NO/S | 1983Ri15 | HFI 15 83 (83) |
| 66 Dy 147 | 0 | ~1.3 m | (1/2+) | -0.915(9) | | | | CFBLS | 1989Ra17 | PC Neugart (87) |
| | 751 | 59 s | (11/2-) | -0.655(10) | | | [163Dy] | CFBLS | 1989Ra17 | PC Neugart (87) |
| | | | | | +0.67(10) | R | [163Dy] | CFBLS | 1989Ra17 | PC Neugart (87) |
| 66 Dy 149 | 0 | 4.23 m | 7/2- | -0.119(7) | | | [163Dy] | CFBLS | 1989Ra17 | PC Neugart (87) |
| | | | | | -0.62(5) | R | [163Dy] | CFBLS | 1989Ra17 | PC Neugart (87) |
| | 8522 | 28 ns | (49/2) | +10.0(15) | | | [152Dy 6129] | TDPAD | 2003Wa28 | NP A728 365 (2003) |
| 66 Dy 151 | 0 | 17 m | 7/2- | -0.945(7) | | | | CFBLS | 1989Ra17 | PC Neugart (87) |
| | | | | | -0.30(5) | R | [163Dy] | CFBLS | 1989Ra17 | PC Neugart (87) |
| 66 Dy 152 | 6129 | 9.9 ns | 21- | +11.6(12) | | | | TDPAD | 1979Me01 | PRL 42 23 (79) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|---------------|------------------|------------|------------------------|------------|-------------|--------|-----------------------------------|------------------------------------|
| | 7882 | 1.6 ns | 27- | +2.4(11) | | | TDPAD | 2004FU36 | HFI 159 245 (2004) |
| | | | 31 - 56 | g(avge) = 0.21(1) | | | TF | 1991Ha16 | PR C44 1397 (91) |
| 66 Dy 153 | 0 | 6.3 h | 7/2- | -0.782(6) | | [163Dy] | CFBLS | 1989Ra17 | PC Neugart (87) |
| | | | | -0.715(6) | | [163Dy] | AB | 1972Ro36 | PS 6 24 (72)/PL 49A 287 (74) |
| | | | | | -0.02(5) | [163Dy] | CFBLS | 1989Ra17 | PC Neugart (87) |
| | | | | | -0.15(9) | [163Dy] | AB | 1972Ro36 | PS 6 24 (72)/PL 49A 287 (74) |
| 66 Dy 154 | yrast band | | 2+ | 0.72(8) | | [calc] | theory | 1993Bi05/1993Bi09 | NP A553 527c (93)/NP A555 643 (93) |
| | | | 4+ | 1.6(2), g/g(2+) 1.1(2) | | [154Dy 2+] | IPAD | 1993Bi05/1993Bi09 | NP A553 527c (93)/NP A555 643 (93) |
| | | | 6+ - 8+ | g/g(2+) 1.0(3) | | [154Dy 2+] | IPAD | 1993Bi05/1993Bi09 | NP A553 527c (93)/NP A555 643 (93) |
| | | | 10+ - 14+ | g/g(2+) 0.5(4) | | [154Dy 2+] | IPAD | 1993Bi05/1993Bi09 | NP A553 527c (93)/NP A555 643 (93) |
| | | | 16+ - 20+ | g/g(2+) 0.3(4) | | [154Dy 2+] | IPAD | 1993Bi05/1993Bi09 | NP A553 527c (93)/NP A555 643 (93) |
| | | | 22+ - 30+ | g/g(2+) 0.8(4) | | [154Dy 2+] | IPAD | 1993Bi05/1993Bi09 | NP A553 527c (93)/NP A555 643 (93) |
| | | | 32+ - 36+ | g/g(2+) 1.2(3) | | [154Dy 2+] | IPAD | 1993Bi05/1993Bi09 | NP A553 527c (93)/NP A555 643 (93) |
| | cont. | short | l(av) = 26 | g(avge) = +0.39(5) | | | TF | 1984Ha39 | PL 144B 341 (84) |
| 66 Dy 155 | 0 | 10.0 h | 3/2- | -0.385(4) | | [163Dy] | CFBLS | 1989Ra17 | PC Neugart (87) |
| | | | | -0.339(2) | | [163Dy] | AB | 1972Ro36 | PS 6 24 (72)/PL 49A 287 (74) |
| | | | | | +1.04(3) | [163Dy] | CFBLS | 1989Ra17 | PC Neugart (87) |
| | | | | | +0.96(2) | [163Dy] | AB | 1973Ek01 | PS 7 31 (1973) |
| | | | | | +0.967(14) | [163Dy] | AB | 1972Ro36 | PS 6 24 (72)/PL 49A 287 (74) |
| 66 Dy 156 | 138 cont | 0.82 ns short | 2+ | +0.78(8) | | | R | 1984Ha39 | PL 144B 341 (84) |
| | | | l(av) = 19 | g(avge) = +0.11(4) | | | TF | 1985Ta02 | NP A435 294 (85) |
| | | | | g(avge) = +0.12(3) | | | TF | 1985Ta02 | NP A435 294 (85) |
| | | | l(av) = 21 | g(avge) = +0.14(6) | | | TF | 1985Ta02 | NP A435 294 (85) |
| | | | l(av) = 23 | g(avge) = +0.20(3) | | | TF | 1985Ta02 | NP A435 294 (85) |
| | | | | g(avge) = +0.21(7) | | | TF | 1985Ta02 | NP A435 294 (85) |
| | | | l(av) = 23 | g(avge) = +0.21(3) | | | TF | 1984Ha39 | PL 144B 341 (84) |
| 66 Dy 157 | 0 | 8.1 h | 3/2- | -0.301(2) | | [163Dy] | CFBLS | 1989Ra17 | PC Neugart (87) |
| | | | | -0.302(2) | | [163Dy] | AB | 1972Ro36 | PS 6 24 (72)/PL 49A 287 (74) |
| | | | | | +1.30(2) | [163Dy] | CFBLS | 1989Ra17 | PC Neugart (87) |
| | | | | | +1.29(2) | [163Dy] | AB | 1973Ek01 | PS 7 31 (1973) |
| | | | | | +1.30(1) | [163Dy] | AB | 1972Ro36 | PS 6 24 (72)/PL 49A 287 (74) |
| 66 Dy 158 | 99 317 | 1.66 ns 73 ps | 2+ 4+ | +0.72(5) +1.33(10) | | | IPAC | 1993AI09 | ZP A345 273 (93) |
| | | | | +1.36(8) | | | IPAC | 1993AI09 | ZP A345 273 (93) |
| | | | | +1.4(2) | | | IMPAC | 1983Se09 | NP A399 211 (83) |
| | | | | +1.4(2) | | | IMPAD | 1973Ka25 | PR C8 757 (73) |
| | 638 | 10.8 ps | 6+ | +1.42(13) | | | IPAC | 1997AL04 | ZP A357 13 (97) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|--------|---------|------------|---------------------------------|-----------|-------------|--------|-----------------------------------|---------------------------------|
| | | | | +1.2(2) | | | IPAC | 1993Al09 | ZP A345 273 (93) |
| | 1044 | 2.9 ps | 8+ | +2.5(7) | | | IPAC | 1997Al04 | ZP A357 13 (97) |
| | | | | +1.7(9) | | | IPAC | 1993Al09 | ZP A345 273 (93) |
| | | | | +3.3(10) | | | TF | 1983Se09 | NP A399 211 (83) |
| | >1044 | | l(av) = 14 | g(avge) = +0.04(11) | | | TF | 1983Se09 | NP A399 211 (83) |
| | gsband | | <16+ | $\alpha \times 10^3 = -1.5(13)$ | | | TF | 1980An27 | PRL 45 1835 (80) |
| 66 Dy 159 | 0 | 144 d | 3/2- | -0.354(3) | | [163Dy] | CFBLS | 1989Ra17 | PC Neugart (87) |
| | | | | | +1.37(2) | R | CFBLS | 1989Ra17 | PC Neugart (87) |
| 66 Dy 160 | 87 | 1.96 ns | 2+ | +0.74(2) | | | TDPAC | 1973Ka25 | PR C8 757 (73) |
| | | | | +0.70(3) | | | TDPAC | 1984Si07 | NIM 219 443 (84) |
| | | | | | 1.8(4) | R | TDPAC | 1970Wa25 | ZP 238 35 (70) |
| | 284 | 101 ps | 4+ | +1.60(12) | | | IPAC | 1997Al04 | ZP A357 13 (97) |
| | | | | +1.40(8) | | | IPAC | 1996Al02 | ZP A353 357 (96) |
| | 581 | 18.6 ps | 6+ | +2.11(10) | | | TF | 1999Br43 | EurPJ A6 149 (99) |
| | | | | +1.45(12) | | | IPAC | 1997Al04 | ZP A357 13 (97) |
| | 966 | 1.34 ps | 2+ | +0.80(5) | | | TF | 1999Br43 | EurPJ A6 149 (99) |
| | | | | +0.63(2) | | | IPAC | 1995Al22 | ZP A353 17 (95) |
| | | | | +0.34(9) | | | IPAC | 1969Si01/1975Kh03 | PL 28B 590 (69)/JP G1 727 (75) |
| | 967 | 3.8 ps | 8+ | +2.7(2) | | | TF | 1999Br43 | EurPJ A6 149 (99) |
| | | | | +2.4(8) | | | IPAC | 1997Al04 | ZP A357 13 (97) |
| | 1429 | 1.56 ps | 10+ | +3.1(3) | | | TF | 1999Br43 | EurPJ A6 149 (99) |
| | 1951 | 0.89 ps | 12+ | +3.6(7) | | | TF | 1999Br43 | EurPJ A6 149 (99) |
| | gsband | | <16+ | $\alpha \times 10^3 = -1.5(16)$ | | | TF | 1980An27 | PRL 45 1835 (80) |
| 66 Dy 161 | 0 | stable | 5/2+ | -0.480(3) | | [163Dy] | AB | 1974Fe05 | PL 49A 287 (74) |
| | | | | -0.481(5) | | | AB/D | 1974Fe05 | PL 49A 287 (74) |
| | | | | | +2.51(2) | R | AB | 1974Fe05 | PL 49A 287 (74) |
| | | | | | 2.47(3) a | | Mu-X | 1977Po15 | NP A292 487 (77) |
| | 26 | 29 ns | 5/2- | +0.594(3) | | [161Dy] | ME, R | 1976St23 | JPCR 5 1093 (76) |
| | | | | | +2.51(2) | R | ME, R | 1976St23 | JPCR 5 1093 (76) |
| | 44 | 0.78 ns | 7/2+ | -0.141(5) | | [161Dy] | ME | 1973Sy01 | PR C7 2056 (73) |
| | | | | | +0.53(13) | R | ME | 1973Sy01 | PR C7 2056 (73) |
| | 75 | 3.2 ns | 3/2- | -0.403(4) | | [161Dy] | ME, R | 1976St23 | JPCR 5 1093 (76) |
| | | | | | +1.45(6) | R | ME, R | 1976St23 | JPCR 5 1093 (76) |
| 66 Dy 162 | 81 | 2.25 ns | 2+ | +0.69(3) | | | RIGV | 1970Be36/1973Ka25 | NP A151 401 (70)/PR C8 757 (73) |
| | 266 | 133 ps | 4+ | +1.14(12) | | | IPAC | 1997Al04 | ZP A357 13 (97) |
| | 549 | 19 ps | 6+ | +2.18(11) | | | TF | 1999Br43 | EurPJ A6 149 (99) |
| | | | | +1.8(2) | | | IPAC | 1997Al04 | ZP A357 13 (97) |
| | 888 | 2.0 ps | 2+ | +0.92(6) | | | TF | 1999Br43 | EurPJ A6 149 (99) |
| | 921 | 4.5 ps | 8+ | +3.05(16) | | | TF | 1999Br43 | EurPJ A6 149 (99) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|-------|------------|--------------|-------------|---------|-----------------------------------|----------------------------------|
| | | | | +3.4(10) | | | IPAC | 1997Al04 | ZP A357 13 (97) |
| | 1375 | 1.6 ps | 10+ | +3.6(4) | | | TF | 1999Br43 | EurPJ A6 149 (99) |
| 66 Dy 163 | 0 | stable | 5/2- | +0.673(4) | | | AB/D | 1974Fe05 | PL 49A 287 (74) |
| | | | | | 2.318(6) | | AB | 1974Fe05 | PL 49A 287 (74) |
| | | | | | +2.65(2) a | R | Mu-X, O | 1984Ta04/1973Mu06 | PR C29 1830 (84)/PR A7 416 (73) |
| 66 Dy 164 | 73 | 2.39 ns | 2+ | +0.68(2) | | [161Dy] | ME | 1968Mu01 | ZP 208 184 (68) |
| | | | | +0.73(3) | | | RIGV | 1970Be36 | NP A151 401 (70) |
| | | | | | -2.08(15) | R | ME | 1968Mu01 | ZP 208 184 (68) |
| | 242 | 0.20 ns | 4+ | +1.00(12) | | [162Dy] | IPAC | 1997Al25 | HFI 110 313 (97) |
| | | | | +1.5(5) | | [164Dy73] | TF | 1989Do12 | PR C40 2035 (89) |
| | 501 | 26.6 ps | 6+ | +1.95(10) | | | TF | 1999Br43 | EurPJ A6 149 (99) |
| | | | | +1.6(3) | | [162Dy] | IPAC | 1997Al25 | HFI 110 313 (97) |
| | | | | +1.7(5) | | | IMPAC | 1983Se09 | NP A399 211 (83) |
| | 762 | 4.6 ps | 2+ | +0.76(5) | | | TF | 1999Br43 | EurPJ A6 149 (99) |
| | | | | +0.6(2) | | [164Dy73] | TF | 1989Do12 | PR C40 2035 (89) |
| | 844 | 7.2 ps | 8+ | +2.48(16) | | | TF | 1999BR43 | EurPJ A6 149 (99) |
| | | | | +2.2(7) | | [164Dy73] | TF | 1989Do12 | PR C40 2035 (89) |
| | 1261 | 2.3 ps | 10+ | +3.1(4) | | | TF | 1999Br43 | EurPJ A6 149 (99) |
| | | | | +3.5(13) | | [164Dy73] | TF | 1989Do12 | PR C40 2035 (89) |
| 66 Dy 165 | 0 | 2.33 h | 7/2+ | -0.520(5) | | [163Dy] | AB | 1968Ra03 | PR 165 1360 (68)/PL 49A 287 (74) |
| | | | | | -3.48(7) | R | AB | 1968Ra03 | PR 165 1360 (68)/PL 49A 287 (74) |
| 67 Ho 152 | 0 | 161.8 s | 2- | -1.02(2) | | [165Ho] | LRIMS | 1989Al27 | NP A504 549 (89) |
| | | | | | +0.1(2) | R | LRIMS | 1989Al27 | NP A504 549 (89) |
| | 160 | 49.5 s | 9+ | +5.94(5) | | [165Ho] | LRIMS | 1989Al27 | NP A504 549 (89) |
| | | | | | -1.3(8) | R | LRIMS | 1989Al27 | NP A504 549 (89) |
| 67 Ho 153 | 0 | 2.0 m | 11/2- | +6.81(5) | | [165Ho] | LRIMS | 1989Al27 | NP A504 549 (89) |
| | | | | | -1.1(5) | R | LRIMS | 1989Al27 | NP A504 549 (89) |
| | 68 | 9.3 m | 1/2+ | +1.19(1) | | [165Ho] | LRIMS | 1989Al27 | NP A504 549 (89) |
| 67 Ho 154 | 0 | 11.76 m | 2- | -0.643(6) | | [165Ho] | LRIMS | 1989Al27 | NP A504 549 (89) |
| | | | | | +0.19(10) | R | LRIMS | 1989Al27 | NP A504 549 (89) |
| | 320 | 3.10 m | 8+ | +5.65(6) | | [165Ho] | LRIMS | 1989Al27 | NP A504 549 (89) |
| | | | | | -1.0(5) | R | LRIMS | 1989Al27 | NP A504 549 (89) |
| 67 Ho 155 | 0 | 48 m | 5/2+ | +3.51(3) | | [165Ho] | LRIMS | 1989Al27 | NP A504 549 (89) |
| | | | | | +1.56(10) | R | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +1.52(10) st | | LRIMS | 1989Al27 | NP A504 549 (89) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|------|------------|--------------|---------|-------------|--------------------------|--------------------------|---------------------------------|
| 67 Ho 156 | 0 | 56 m | 4(+) | +2.99(3) | | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| | | | | | +2.40(18) | R | [165Ho] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +2.3(2) st | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| 67 Ho 157 | 0 | 12.6 m | 7/2- | +4.35(3) | | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| | | | | | +3.05(13) | R | [165Ho] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +2.97(13) st | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| 67 Ho 158 | 0 | 11.3 m | 5+ | +3.77(3) | | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| | | | | | +4.2(4) | R | [165Ho] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +4.1(4) st | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| | 67.2 | 28 m | 2- | +2.44(3) | | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| | | | | | +1.66(17) | R | [165Ho] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | +1.6(2) st | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) | |
| 67 Ho 159 | 0 | 35.05 m | 7/2- | +4.28(3) | | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| | | | | | +3.27(13) | R | [165Ho] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 3.19(13) st | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| 67 Ho 160 | 0 | 25.6 m | 5+ | +3.71(3) | | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| | | | | | +4.0(2) | R | [165Ho] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +4.0(2) st | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| | 60 | 5.02 h | 2- | +2.52(3) | | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| | | | | | +1.83(17) | R | [165Ho] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | +1.8(2)st | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) | |
| 67 Ho 161 | 0 | 2.48 h | 7/2- | +4.25(3) | | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| | | | | | +3.30(11) | R | [165Ho] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 3.22(11) st | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| 67 Ho 162 | 106 | 67 m | 6- | +3.60(4) | | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| | | | | | +4.0(7) | R | [165Ho] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 3.9(7) st | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| 67 Ho 163 | 0 | 4570 y | 7/2- | +4.23(4) | | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| | | | | | +3.7(6) | R | [165Ho] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 3.6(6) st | | [165Ho] | LRIMS | 1989AI27 | NP A504 549 (89) |
| 67 Ho 165 | 0 | stable | 7/2- | +4.17(3) | | | | AB/D, R | 1974Da11 | ZP 267 239 (74) |
| | | | | | 3.58(2) a | R | | Pi-X | 1983OI03 | NP A403 572 (83) |
| | | | | | +2.716(9) | | | ABLS | 1982Bu13 | ZP A307 193 (82) |
| | | | | | 3.60(2) a | | | Pi-X | 1981Ba07 | NP A355 383 (81) |
| | | | | | 3.41(8) a | | | Ka-X | 1981Ba07 | NP A355 383 (81) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|----------|----------|--------|------------|------------|-------------|----------|-----------------------------------|----------------------------------|
| | | | | | 3.53(8) a | | Pi-X | 1978Eb01 | NP A296 493 (78) |
| | | | | | +3.49(3) a | | Mu-X, AB | 1976Po05/1974Da10 | NP A262 493 (76)/ZP 267 229 (74) |
| | 95 | 22 ps | 9/2- | 4.1(2) | | [165Ho] | ME | 1972Ge21 | ZP 257 29 (72) |
| | | | | | +3.52(4) | [165Ho] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 3.43(4) a | | Mu-X | 1976Po05 | NP A262 493 (76) |
| 67 Ho 166 | 6 | 1200 y | (7)- | 3.60(16) | | | NO/S | 1981Kr12 | PR C24 654 (81) |
| | | | | 3.65(13) | | [165Ho] | NO/S | 1981Ma43 | HFI 10 1183 (80) |
| | | | | 3.60(5) | | | NO/S | 1980Al34 | PRS A372 19 (80) |
| | | | | | -3(3) | [165Ho] | NO/S | 1981Ma43 | HFI 10 1183 (80) |
| | 54 | 3.4 ns | 2- | +0.068(10) | | | IPAC | 1979Ba40 | NP A331 75 (79) |
| 68 Er 152 | 2184 | 1.8 ns | 8+ | -0.6(6) | | | IPAD | 1984AdZT | Cf83Meguro, 155 (83) |
| | 4521 | 1.2 ns | 16+ | +5(2) | | | IPAD | 1984AdZT | Cf83Meguro, 155 (83) |
| 68 Er 153 | 0 | 37.1 s | (7/2-) | -0.939(7) | | [167Er] | CFBLS | 1987OtZW | CERN EP/87 51 (1987) |
| | | | | | -0.42(2) | [167Er] | CFBLS | 1987OtZW | CERN EP/87 51 (1987) |
| 68 Er 154 | 3016 + x | 39 ns | 11- | +0.169(13) | | | TDPAD | 1984Ra11 | PR C30 169 (84) |
| | | | | +0.19(3) | | | TDPAD | 1983Ng02 | ZP A309 207 (83) |
| 68 Er 155 | 0 | 5.3 m | 7/2- | -0.671(5) | | [167Er] | CFBLS | 1987OtZW | CERN EP/87 51 (1987) |
| | | | | | -0.27(2) | [167Er] | CFBLS | 1987OtZW | CERN EP/87 51 (1987) |
| | 563 | 30 ns | 13/2+ | -0.55(3) | | | TDPAD | 1984Ra11 | PR C30 169 (84) |
| 68 Er 156 | 345 | 33 ps | 2+ | 0.80(12) | | | RIGV | 1970No01 | NP A142 577 (70) |
| 68 Er 157 | 0 | 25 m | 3/2- | -0.414(3) | | [167Er] | CFBLS | 1987OtZW | CERN EP/87 51 (1987) |
| | | | | | +0.92(2) | [167Er] | CFBLS | 1987OtZW | CERN EP/87 51 (1987) |
| | 266+x | 54 ps | 17/2+ | 0.4(4) | | | IAPAD | 1974Na08 | PRL 32 1380 (74) |
| 68 Er 158 | 192 | 0.30 ns | 2+ | 0.72(11) | | | RIGV | 1970No01 | NP A142 577 (70) |
| 68 Er 159 | 0 | 36 m | 3/2- | -0.305(2) | | [167Er] | CFBLS | 1987OtZW | CERN EP/87 51 (1987) |
| | | | | | +1.17(1) | [167Er] | CFBLS | 1987OtZW | CERN EP/87 51 (1987) |
| | 784 | 8.2 ps | 21/2+ | <0.74 | | | RIGV | 1980Sp03 | NP A344 176 (80) |
| 68 Er 160 | 126 | 0.919 ns | 2+ | +0.66(12) | | | PAC | 2005WO06 | PR C72 027301 (05) |
| | 390 | 34 ps | 4+ | 1.28(19) | | | RIGV | 1970No01 | NP A142 577 (70) |
| 68 Er 161 | 0 | 3.21 h | 3/2- | -0.367(3) | | [167Er] | CFBLS | 1987OtZW | CERN EP/87 51 (1987) |
| | | | | -0.369(3) | | [167Er] | AB | 1972Ek03 | NP A194 237 (72) |
| | | | | | +1.35(2) | [167Er] | CFBLS | 1987OtZW | CERN EP/87 51 (1987) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | R | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|------|------------|-----------|---|-------------|--------|-----------------------------------|--------------------------------|
| | | | | | +1.363(8) | R | [167Er] | AB | 1972Ek03 | NP A194 237 (72) |
| 68 Er 162 | 102 | 1.3 ns | 2+ | | < 0 | | | CER | 1981Hu02 | PR C23 240 (81) |
| | 901 | 1.24 ps | 2+ | | 1.8(6) | R | | CER | 1983Hu01 | PR C27 550 (83) |
| 68 Er 163 | 0 | 75.1 m | 5/2- | +0.560(4) | | | [167Er] | CFBLS | 1987OtZW | CERN EP/87 51 (1987) |
| | | | | | +2.56(2) | R | [167Er] | CFBLS | 1987OtZW | CERN EP/87 51 (1987) |
| | | | | | +2.57(10) | | [167Er] | AB | 1972Ek03 | NP A194 237 (72) |
| 68 Er 164 | 92 | 1.48 ns | 2+ | 0.697(15) | | | [166Er 81] | ME | 1968Mu01 | ZP 208 184 (68) |
| | | | | | < 0 | | | CER | 1981Hu02 | PR C23 240 (81) |
| | 299 | 86 ps | 4+ | +1.46(15) | | | [166Er] | IPAC | 1997AL25 | HFI 110 313 (97) |
| | | | | +1.36(8) | | | | TF | 1996Br09 | NP A600 272 (96) |
| | 614 | | 6+ | +1.88(9) | | | | TF | 1996Br09 | NP A600 272 (96) |
| | 860 | 1.9 ps | 2+ | +0.81(6) | | | | TF | 1996Br09 | NP A600 272 (96) |
| | | | | | 2.4(3) | R | | CER | 1983Hu01 | PR C27 550 (83) |
| | 1025 | 2.6 ps | 8+ | +2.72(13) | | | | TF | 1996Br09 | NP A600 272 (96) |
| | 1518 | 1.0 ps | 10+ | +3.2(3) | | | | TF | 1996Br09 | NP A600 272 (96) |
| 68 Er 165 | 0 | 10.36 h | 5/2- | +0.646(4) | | | [167Er] | CFBLS | 1987OtZW | CERN EP/87 51 (1987) |
| | | | | | +2.71(3) | R | [167Er] | CFBLS | 1987OtZW | CERN EP/87 51 (1987) |
| | 243 | 0.31 ns | 3/2- | +0.6(2) | | | | | 1978EqZY | Cf78Dubna 138 (78) |
| 68 Er 166 | 81 | 1.85 ns | 2+ | +0.649(10) | | | [167Er] | ME | 1981Ho31 | HFI 11 29 (81) |
| | | | | +0.632(10) | | | [167Er] | ME | 1968Mu01/1964Do09 | ZP 208 184 (68)/PL 10 319 (64) |
| | | | | | -2.9(10) | | | CER | 1970Ka45 | Cf69Heid 471 (69) |
| | | | | | -1.9(4) | R | | ME | 1965Hu01 | ZP 182 499 (65) |
| | 265 | 118 ps | 4+ | +1.14(8) | | | | TF | 1996Br09 | NP A600 272 (96) |
| | | | | +1.26(6) | | | [166Er 81] | IPAC | 1985Al22 | ZP A322 467 (85) |
| | | | | | -2.7(9) | R | | CER | 1969McZS | BAPS 14 1204 (69) |
| | 545 | 16.8 ps | 6+ | +1.72(9) | | | | TF | 1996Br09 | NP A600 272 (96) |
| | | | | +1.6(2) | | | [166Er 265] | TF | 1986Do13 | ZP A325 285 (86) |
| | | | | +1.55(7) | | | [166Er 81] | IPAC | 1985Al22 | ZP A322 467 (85) |
| | 786 | 4.6 ps | 2+ | +0.74(5) | | | | TF | 1996Br09 | NP A600 272 (96) |
| | | | | +0.56(9) | | | [166Er 265] | TF | 1986Do13 | ZP A325 285 (86) |
| | | | | | 2.2(3) | R | | CER | 1983Hu01 | PR C27 550 (83) |
| | | | | | 2.1(4) | | | CER | 1977Mc11 | NP A289 253 (77) |
| | | | | | 2.0(3) | | | CER | 1970McZQ | ORNL 4513 56 (70) |
| | 911 | 4.2 ps | 8+ | +2.2(2) | | | | TF | 1996Br09 | NP A600 272 (96) |
| | | | | +1.9(3) | | | [166Er 265] | TF | 1986Do13 | ZP A325 285 (86) |
| | | | | +2.1(4) | | | [166Er 81] | IPAC | 1985Al22 | ZP A322 467 (85) |
| | 1216 | 3.9 ps | 6+ | +1.5(2) | | | [166Er 81] | IPAC | 1985Al22 | ZP A322 467 (85) |
| | 1350 | 1.7 ps | 10+ | +2.8(4) | | | | TF | 1996Br09 | NP A600 272 (96) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-------|----------|---------|--------------|------------|-------------|--------|--------------------------|-----------------------------------|
| | | | | +2.0(8) | | [166Er 265] | TF | 1986Do13 | ZP A325 285 (86) |
| 68 Er 167 | 0 | stable | 7/2+ | -0.56385(12) | | | AB/D | 1984Fo02 | ZP A315 1 (84) |
| | | | | -0.565(2) | | | AB | 1965Sm04 | PPS 86 1249 (65) |
| | | | | | +3.57(3) a | R | Mu-X | 1984Ta04 | PR C29 1830 (84) |
| | | | | | +2.827(12) | | AB | 1965Sm04 | PPS 86 1249 (65) |
| 68 Er 168 | 80 | 1.86 ns | 2+ | +0.62(6) | | | IPAC | 1980Fu03 | PR C21 2575 (80) |
| | | | | +0.658(14) | | [166Er 81] | ME | 1968Mu01 | ZP 208 184 (68) |
| | 264 | 121 ps | 4+ | +1.17(12) | | | TF | 1996Br09 | NP A600 272 (96) |
| | | | | +1.26(16) | | [166Er 265] | IMPAC | 1968De28 | Cf67HI 731 (67) |
| | | | | | -2.2(10) | R | CER | 1970McZQ | ORNL 4513 56 (70) |
| | 549 | 16.8 ps | 6+ | +1.81(12) | | | TF | 1996Br09 | NP A600 272 (96) |
| | | | | +2.0(3) | | [168Er 264] | TF | 1989Do12 | PR C40 2035 (89) |
| | 821 | 2.9 ps | 2+ | +0.77(4) | | | TF | 1996Br09 | NP A600 272 (96) |
| | | | | +0.72(14) | | [168Er 549] | TF | 1989Do12 | PR C40 2035 (89) |
| | | | | | 2.3(2) | R | CER | 1983Hu01 | PR C27 550 (83) |
| | 928 | 3.4 ps | 8+ | +2.4(2) | | | TF | 1996Br09 | NP A600 272 (96) |
| | | | | +2.7(5) | | [168Er 549] | TF | 1989Do12 | PR C40 2035 (89) |
| | 1094 | 112.5 ns | 4- | +0.96(4) | | | TDPAC | 1980Fu03 | PR C21 2575 (80) |
| | 1396 | 1.4 ps | 10+ | +3.1(4) | | | TF | 1996Br09 | NP A600 272 (96) |
| | | | | +3.2(8) | | [168Er 549] | TF | 1989Do12 | PR C40 2035 (89) |
| 68 Er 169 | 0 | 9.40 d | 1/2- | +0.52(3) | | | AB/D | 1963Do09 | PR 131 1586 (63) |
| | | | | +0.4850(2) | | [167Er] | AB | 1963Do09 | PR 131 1586 (63)/PPS 86 1249 (65) |
| 68 Er 170 | 79 | 1.90 ns | 2+ | 0.633(13) | | [166Er 81] | ME | 1969Wi04 | PR 177 1786 (69) |
| | | | | | -1.9(2) | R | CER | 1973Lu02 | PR C8 391 (73) |
| | 260 | ~135 ps | 4+ | +1.09(15) | | [166Er 265] | IMPAC | 1968De28 | Cf67HI 731 (67) |
| | | | | | -2.2(10) | R | CER | 1970McZQ | ORNL 4513 56 (70) |
| | 934 | 1.7 ps | 2+ | | 2.0(3) | R | CER | 1983Hu01 | PR C27 550 (83) |
| 68 Er 171 | 0 | 7.52 h | 5/2- | 0.659(10) | | [167Er] | AB | 1964Bu09 | PR 135 B1281 (64) |
| | | | | | 2.86(9) | R | AB | 1964Bu09 | PR 135 B1281 (64) |
| 69 Tm 153 | 0 | 1.48 s | (11/2-) | 6.93(11) | | [169Tm] | LRIS | 2000Ba16 | PR C61 034304 (00) |
| | | | | | +0.5(10) | R | LRIS | 2000Ba16 | PR C61 034304 (00) |
| 69 Tm 154 | 0 | 8.1 s | (2-) | -1.14(2) | | [169Tm] | LRIS | 2000Ba16 | PR C61 034304 (00) |
| | | | | | +0.4(9) | R | LRIS | 2000Ba16 | PR C61 034304 (00) |
| | 0 + x | 3.30 s | (9+) | +5.91(5) | | [169Tm] | LRIS | 2000Ba16 | PR C61 034304 (00) |
| | | | | | -0.2(4) | R | LRIS | 2000Ba16 | PR C61 034304 (00) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|--------|---------|------|---------------|--------------|---|-------------|--------------|-----------------------------------|-----------------------------------|
| 69 Tm 156 | 0 | 1.3 m | 2- | +0.40(3) | | | [169Tm] | LRIMS | 1987AIzb | LIYAF 1309 (1987) |
| | | | | | -0.48(11) st | R | [170Tm] | LRIMS | 1987AIzb | LIYAF 1309 (1987) |
| 69 Tm 157 | 0 | 3.6 m | 1/2+ | +0.476(15) | | | [169Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| 69 Tm 158 | 0 | 4.3 m | 2- | +0.04(2) | | | [169Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| | | | | | +0.74(11) st | R | [170Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| 69 Tm 159 | 0 | 9.0 m | 5/2+ | +3.42(3) | | | [169Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| | | | | | +1.93(7) st | R | [170Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| 69 Tm 160 | 0 | 9.4 m | 1- | +0.16(2) | | | [169Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| | | | | | +0.58(4) st | R | [170Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| 69 Tm 161 | 0 | 38 m | 7/2+ | +2.40(2) | | | [169Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| | | | | | +2.90(7) st | R | [170Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| 69 Tm 162 | 0 | 21 m | 1- | +0.068(8) | | | [169Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| | | | | | +0.69(3) st | R | [170Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| 69 Tm 163 | 0 | 1.8 h | 1/2+ | -0.082(1) | | | [169Tm] | AB, LRIMS | 1967Dy01/1988AI04 | BAPS 12 1046 (67)/NP A477 37 (88) |
| 69 Tm 164 | 0 | 2.0 m | 1+ | +2.38(3) | | | [169Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| | | | | | +0.71(5) st | R | [170Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| 69 Tm 165 | 0 | 30.06 h | 1/2+ | -0.139(2) | | | [169Tm] | AB, LRIMS | 1968Sc26/1988AI04 | BAPS 13 1650 (68)/NP A477 37 (88) |
| 69 Tm 166 | 0 | 7.7 h | 2+ | +0.092(1) | | | [169Tm] | AB, LRIMS | 1988AI04/1972Ad14 | NP A477 37 (88)/NP A198 380 (72) |
| | | | | | +2.14(3) st | R | [170Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| 69 Tm 167 | 0 | 9.25 d | 1/2+ | -0.197(2) | | | [169Tm] | AB, R, LRIMS | 1973Ek01/1988AI04 | PS 7 31 (73)/NP A477 37 (88) |
| 69 Tm 168 | 0 | 85 d | 3+ | +0.227(11) | | | [169Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| | | | | | +3.23(7) st | R | [170Tm] | LRIMS | 1988AI04 | NP A477 37 (88) |
| 69 Tm 169 | 0 | stable | 1/2+ | -0.2310(15) d | | | | AB | 1967Gi04 | ZP 199 244 (67) |
| | | | | -0.229(3) | | | | AB/D | 1962Ri11 | PR 128 2238 (62) |
| | | | | 0.24(1) | | | | PMR | 1961Ha37 | JCP 35 1521 (61) |
| | | | | -0.21(2) | | | | O | 1955Li49 | ZP 141 476 (55) |
| | | | | +0.515(5) | | | | [169Tm] | ME | |
| 8 | 3.9 ns | 3/2+ | | +0.513(5) | | | [169Tm] | ME | | JMMM 15/18 651 (80) |
| | | | | | | | | ME | 1964Co08 | PR 134 A94 (64) |
| 118 | 62 ps | 5/2+ | | +0.76(5) | -1.2(1) st | R | | IPAC | 1969Gu01/1968Ka14 | NP A123 386 (69)/NP A119 417 (68) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|---------|---------|---------|------------|-------------|-----------------|--------------|--|--|
| | 139 | 302 ps | 7/2+ | +1.34(5) | | | IPAC | 1969Gu01/1968Ka14 | NP A123 386 (69)/NP A119 417 (68) |
| | 316 | 660 ns | 7/2+ | +0.156(8) | | | TDPAC | 1972Ni03 | NP A181 298 (72) |
| | 332 | 19 ps | 9/2+ | +1.56(9) | | [169Tm 118,139] | TF | 1999Ro03 | NP A647 175 (99) |
| | 368 | 42 ps | 11/2+ | +2.28(14) | | [169Tm 118,139] | TF | 1999Ro03 | NP A647 175 (99) |
| | 379 | 48 ns | 7/2- | +3.04(14) | | | TDPAC | 1997De02 | PR C55 1197 (97) |
| | 637 | 5.6 ps | 13/2+ | +2.37(14) | | [169Tm 118,139] | TF | 1999Ro03 | NP A647 175 (99) |
| | 691 | 8.4 ps | 15/2+ | +3.2(3) | | [169Tm 118,139] | TF | 1999Ro03 | NP A647 175 (99) |
| | 1028 | 2.0 ps | 17/2+ | +3.2(3) | | [169Tm 118,139] | TF | 1999Ro03 | NP A647 175 (99) |
| | 1104 | 2.0 ps | 19/2+ | +4.2(8) | | [169Tm 118,139] | TF | 1999Ro03 | NP A647 175 (99) |
| 69 Tm 170 | 0 | 128.6 d | 1+ | +0.246(2) | | [169Tm] | ABLS | 1988Dy02 | PR C38 2813 (88) |
| | | | | +0.247(5) | | [169Tm] | AB, R | 1960Ca15/1967Gi04/ 1973Ek01 | PR 120 920 (60)/ZP 199 244 (67)/ PS 7 31 (73) |
| | | | | | +0.72(5) st | [169Tm] | ABLS | 1988Dy02 | PR C38 2813 (88) |
| | | | | | +0.74(2) st | R | AB, R, LRIMS | 1973Ek01/1988Al04 | PS 7 31 (73)/NP A477 37 (88) |
| | | | | | 0.63(5) | | AB, R | 1960Ca15/1973Ek01 | PR 120 920 (60)/PS 7 31 (73) |
| 69 Tm 171 | 0 | 1.92 y | 1/2+ | -0.228(4) | | [169Tm] | AB, R | 1967Gi04/1964Bu09 | ZP 199 244 (67)/PR 135B 1281 (64) |
| | 117 | 55 ps | 5/2+ | +0.8(4) | | | IPAC | 1968Ka14 | NP A119 417 (68) |
| | 129 | 415 ps | 7/2+ | +1.27(12) | | | IPAC | 1968Ka14 | NP A119 417 (68) |
| | 636 | 1.26 ns | 7/2+ | +1.2(2) | | | IPAC | 1978Ba03 | ZP A284 161 (78) |
| 70 Yb 155 | 0 | 1.59 s | (7/2-) | -0.91(2) | | | LRIS | 1998Ba08 | EurPJ A1 3 (98) |
| | | | | -0.84(8) | | | LRIMS | 92Al25 | BRASP 56 (11) 69 (92) |
| | | | | | -0.5(3) | R | LRIS | 1998Ba08 | EurPJ A1 3 (98) |
| | | | | | -1.2(10) | | LRIMS | 92Al25 | BRASP 56 (11) 69 (92) |
| 70 Yb 157 | 0 | 38.6 s | 7/2- | -0.639(8) | | [171Yb] | CFBLS | 92Ku21 | HFI 74 171 (92) |
| | 494 + x | 45 ns | 13/2+ | -0.75(8) | | | TDPAD | 1984Ra11 | PR C30 169 (84) |
| 70 Yb 158 | band | | 30 - 38 | (+)0.20(7) | | | TF | 1988KIZX | ANL-PHY-88-2 (88) |
| 70 Yb 159 | 0 | 1.58 m | 5/2(-) | -0.368(8) | | [171Yb] | CFBLS | 1992Ku21 | HFI 74 171 (92) |
| | | | | -0.366(8) | | [173Yb] | CFBLS | 1983Ne13 | HFI 15 181 (83) |
| | | | | | -0.22(2) | R | [173Yb] | 1983Ne13 | HFI 15 181 (83) |
| 70 Yb 160 | band | | ~4+ | +1.9(10) | | | IPAC | 1990Lu02 | ZP A335 369 (90) |
| | band | | 14+ | -3(4) | | | IPAC | 1990Lu02 | ZP A335 369 (90) |
| | band | | 34 - 42 | 0.12(7) | | | TF | 1988KIZX | ANL-PHY-88-2 (88) |
| 70 Yb 161 | 0 | 4.2 m | 3/2- | -0.327(8) | | [173Yb] | CFBLS | 1983Ne13 | HFI 15 181 (83) |
| | | | | | +1.03(2) | R | [173Yb] | 1983Ne13 | HFI 15 181 (83) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|---------|--------------|-------|---------------------------------|----------|-------------|--------|-----------------------------------|---------------------------------|
| 70 Yb 162 | cont. | | 20-32 | $g(\text{avge}) = 0.24(5)$ | | | TF | 1984Ma10 | PL 134B 153 (84) |
| 70 Yb 163 | 0 | 11.0 m | 3/2- | -0.374(8) | +1.24(2) | [173Yb] | CFBLS | 1983Ne13 | HFI 15 181 (83) |
| | | | | | | [173Yb] | CFBLS | 1983Ne13 | HFI 15 181 (83) |
| 70 Yb 164 | 123 | 0.88 ns | 2+ | +0.64(10) | | | IPAC | 2004Be13 | PR C69 034320 |
| 70 Yb 165 | 0 | 9.9 m | 5/2- | +0.478(8) | +2.48(4) | [173Yb] | CFBLS | 1983Ne13 | HFI 15 181 (83) |
| | | | | | | [173Yb] | CFBLS | 1983Ne13 | HFI 15 181 (83) |
| 70 Yb 167 | 0 | 17.5 m | 5/2- | +0.623(8) | +2.70(4) | [173Yb] | CFBLS | 1983Ne13 | HFI 15 181 (83) |
| | | | | | | [173Yb] | CFBLS | 1983Ne13 | HFI 15 181 (83) |
| 70 Yb 169 | 0 | 32.0 d | 7/2+ | -0.635(8) | | [173Yb] | CFBLS | 1983Ne13 | HFI 15 181 (83) |
| | | | | -0.633(16) | | [173Yb] | O, R | 1983Ne13 | HFI 15 181 (83) |
| | | | | | +3.54(6) | [173Yb] | CFBLS | 1983Ne13 | HFI 15 181 (83) |
| | | | | | +3.52(7) | [173Yb] | O, R | 1983Ne13 | HFI 15 181 (83) |
| | 24 | 46 s | 1/2- | +0.507(8) | | [173Yb] | CFBLS | 1983Ne13 | HFI 15 181 (83) |
| 70 Yb 170 | 84 | 1.57 ns | 2+ | +0.674(8) | -2.18(3) | [171Yb] | ME | 1968Mu01/1965Hu03 | ZP 208 184 (68)/PL 15 269 (65) |
| | | | | | 2.1(4) | [170Yb 84] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | | [172Yb 79] | ME | 1971PI03 | NP A165 97 (71) |
| | gs band | | <12+ | $\alpha \times 10^3 = -0.5(15)$ | | [169Tm] | TF | 1979Wa15 | NP A330 225 (79) |
| | gs band | | <18+ | $\alpha \times 10^3 = -2.4(15)$ | | | TF | 1980An27 | PRL 45 1835 (80) |
| 70 Yb 171 | 0 | stable | 1/2- | +0.49367(1) | | [23Na] | OP/RD | 1972OI01 | ZP 249 205 (72) |
| | | | | +0.4949(4) | | [35Cl] | N | 1964Go06 | PR 133 A881 (64) |
| | 67 | 0.81 ns | 3/2- | 0.350(2) | -2.34(7) | [171Yb] | ME | 1966He09/1966Gu07 | PL 22 446 (66)/PL 22 443 (66) |
| | | | | | 1.6(3) | [170Yb 84] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | | [171Yb] | ME | 1971PI03 | NP A165 97 (71) |
| | 76 | 1.64 ns | 5/2- | +1.015(5) | -2.22(7) | [171Yb] | ME | 1970He25 | PR C2 2414 (70) |
| | | | | | 2.2(4) | [170Yb 84] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | | [170Yb 84] | ME | 1971PI03 | NP A165 97 (71) |
| | 231 | (est 136 ps) | 7/2- | 0.83(5) | | | TF | 2000ST06 | NP A669 27 (00) |
| | 247 | (est 135 ps) | 9/2- | 1.53(7) | | | TF | 2000ST06 | NP A669 27 (00) |
| | 487 | (est 21 ps) | 11/2- | 1.54(8) | | | TF | 2000ST06 | NP A669 27 (00) |
| | 509 | (est 21 ps) | 13/2- | 2.31(12) | | | TF | 2000ST06 | NP A669 27 (00) |
| | 833 | (est 5.1 ps) | 15/2- | 2.10(14) | | | TF | 2000ST06 | NP A669 27 (00) |
| | 860 | (est 5.1 ps) | 17/2- | 2.83(15) | | | TF | 2000ST06 | NP A669 27 (00) |
| | 1263 | (est 1.8 ps) | 19/2 | 2.5(3) | | | TF | 2000ST06 | NP A669 27 (00) |
| | 1293 | (est 1.8 ps) | 21/2 | 3.0(3) | | | TF | 2000ST06 | NP A669 27 (00) |
| 70 Yb 172 | 79 | 1.80 ns | 2+ | +0.669(16) | | [171Yb] | ME | 1968Mu01 | ZP 208 184 (1968) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|---------|----------|--------|---------------------------------|-----------|-------------|-------------|-------------------|-----------------------------------|-----------------------------------|
| | | | | | -2.22(4) | R | [170Yb 84] | R | 2013SiZz | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 2.2(4) | | TDPAC | 1970WaZs | ZP 238 35 (1970) | |
| | 260 | 0.122 ns | 4+ | +1.37(5) | | | IPAC | 1972Be94 | Duzb 1972n 1 32 (1972) | |
| | | | | | -2.3(12) | R | | CER | 1970McZQ | ORNL-4513 56 (70) |
| | 1172 | 7.8 ns | 3+ | +0.65(4) | | | TDPAC | 1965Gu01 | NP 61 65 (1965) | |
| | | | | | -2.9(3) | R | [170Yb 84] | R | 2013SiZz | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -3.0(3) | | TDPAC | 1970Wa25 | ZP 238 35 (1970) | |
| | 1757 | | (1-) | | -3.44(10) | R | | Mu-X | 1979Ho23 | PR C20 1934 (1979) |
| | 1822 | | (3-) | | +1.97(10) | R | | Mu-X | 1979Ho23 | PR C20 1934 (1979) |
| 70 Yb 173 | 0 | stable | 5/2- | -0.648(3) | | [171Yb] | CFBLS | 1992Ku21 | HFI 74 171 (92) | |
| | | | | -0.67989(3) | | [23Na] | OP/RD | 1972OI01 | ZP 249 205 (72) | |
| | | | | 0.68002(3) | | [35Cl] | N | 1964Go06 | PR 133 A881 (64) | |
| | | | | | +2.80(4) | R | | Mu-X, O | 1975Ze04/1964Ro11 | NP A254 315 (75)/JPJa 19 249 (64) |
| | 79 | 44 ps | 7/2- | -0.20(7) | | | IPAC | 1983Ca28 | HFI 15 85 (83) | |
| | 179 | 24 ps | 9/2- | +0.3(4) | | | IPAC | 1983Ca28 | HFI 15 85 (83) | |
| | 351 | 471 ps | 7/2+ | -0.5(5) | | | IPAC | 1983Ca28 | HFI 15 85 (83) | |
| 70 Yb 174 | 77 | 1.79 ns | 2+ | +0.676(8) | | | ME | 1971He03 | ZP 241 138 (71) | |
| | | | | | -2.18(5) | R | [170Yb 84] | R | 2013SiZz | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 2.1(3) | | [170Yb 84] | ME | 1971PI03/1971He03 | NP A165 97 (71)/ZP 241 138 (71) |
| | 253 | 144 ps | 4+ | | -1.8(12) | R | | CER | 1970McZQ | ORNL 4513 56 (70) |
| | gs band | < 12+ | | $\alpha \times 10^3 = +0.3(15)$ | | [169Tm] | TF | 1979Wa15 | NP A330 225 (79) | |
| | gs band | <16+ | | $\alpha \times 10^3 = -1.3(10)$ | | | TF | 1980An27 | PRL 45 1835 (80) | |
| 70 Yb 175 | 0 | 4.18 d | 7/2- | 0.768(8) | | [171Yb] | CFBLS | 1992Ku21 | HFI 74 171 (92) | |
| | | | | 0.58(8) | | | NO/S | 1974Be19 | PR B9 1092 (74) | |
| | | | | 0.40(5) | | | NO/S | 1972Kr18 | NP A197 352 (72) | |
| | | | | | +3.52(5) | R | [173Yb] | CLS | 2012FI05 | JP G39 125101 (2012) |
| 70 Yb 176 | 82 | 1.8 ns | 2+ | +0.68(3) | | [171Yb 67] | ME, CETD | 1967Ec02/1966TI01 | PR 163 1295 (67)/PR 141 1062 (66) | |
| | | | | | -2.28(6) | R | [170Yb 84] | R | 2013SiZz | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 2.2(4) | | [170Yb 84] | ME | 1967Ec01 | PR 156 246 (67) |
| | 272 | 0.11 ns | 4+ | | -0.9(12) | R | | CER | 1970McZQ | ORNL 4513 56 (70) |
| | 1050 | 11.4 s | 8- | -0.151(15) | | [175,177Yb] | CLS | 2007BI14 | PL B645 330 (07) | |
| | | | | | +5.30(8) | R | [175,177Yb] | CLS | 2007BI14 | PL B645 330 (07) |
| 70 Yb 177 | 0 | 1.91 h | 9/2+ | -0.695(15) | | [173Yb] | CLS | 2012FI05 | JP G39 125101 (2012) | |
| | | | | | +4.03(6) | R | [173Yb] | CLS | 2012FI05 | JP G39 125101 (2012) |
| | 331.5 | 6.41 s | 1/2- | +0.151(15) | | [173Yb] | CLS | 2012FI05 | JP G39 125101 (2012) | |
| 71 Lu 161 | 0 | 77 s | 1/2(+) | +0.223(3) | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-------|---------|----------|-------------|-----------|--------------------------|------------------|--------------------------|--------------------------|-------------------|
| 71 Lu 162 | 0 | 1.37 m | 1- | +0.0553(11) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | | +0.519(8) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| 71 Lu 163 | 0 | 238 s | 1/2(+) | +0.0769(10) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| 71 Lu 164 | 0 | 3.14 m | 1- | +0.0591(11) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | | +0.608(7) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| 71 Lu 165 | 0 | 10.74 m | 1/2(+) | -0.0245(3) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| 71 Lu 166 | 0 | 2.65 m | 6- | +2.912(12) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | | +4.33(4) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | 34 | 1.41 m | 3- | +0.189(5) | +2.72(2) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| 71 Lu 167 | 0 | 51.5 m | 7/2+ | +2.325(4) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | | +3.28(2) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | x | >60 s | 1/2(+) | -0.0999(13) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| 71 Lu 168 | 0 | 5.5 m | 6- | +3.02(3) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | | +4.77(6) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | 220 | 6.7 m | 3+ | +1.221(5) | +2.43(2) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| 71 Lu 169 | 0 | 34.1 h | 7/2+ | 2.295(4) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | 2.297(13) | | | [177Lu] | NMR-ON | 1996Ko26 | PR C54 1027 (96) |
| | | | | | 3.48(3) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | | 3.42(12) | | [177Lu] | NMR-ON | 1996Ko26 | PR C54 1027 (96) |
| 71 Lu 171 | 0 | 8.24 d | 7/2+ | +2.293(4) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | 2.305(12) | | | [177Lu] | NMR-ON | 1996Ko26 | PR C54 1027 (96) |
| | | | | 2.03(10) | | | [177Lu] | NO/S | 1976Kr04 | PR C13 1295 (76) |
| | | | | | +3.53(3) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | | 3.38(4) | | [177Lu] | NMR-ON | 1996Ko26 | PR C54 1027 (96) |
| | 71 | 79 s | 1/2- | +0.585(7) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| 71 Lu 172 | 0 | 6.70 d | 4- | +2.900(10) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | 2.893(15) | | | [177Lu] | NMR-ON | 1996Ko26 | PR C54 1027 (96) |
| | | | | 2.25(10) | | | [177Lu] | NO/S | 1976Kr04 | PR C13 1295 (76) |
| | | | | | +3.80(4) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | 3.79(6) | | [177Lu] | NMR-ON | 1996Ko26 | PR C54 1027 (96) | | | |
| 42 | 3.7 m | 1- | +1.98(4) | +0.76(3) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|-------|------------------------|------------|-------------|------------|--------------------------|-----------------|--------------------------|-----------------------------------|----------------------------------|-------------------|
| 71 Lu 173 | 0 | 1.37 y | 7/2+ | +2.281(2) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) | |
| | | | | 2.280(12) | | | [177Lu] | NMR-ON | 1996Ko26 | PR C54 1027 (96) | |
| | | | | 2.34(9) | | | [177Lu] | NO/S | 1975Kr11 | PR C12 1999 (75) | |
| | | | | | +3.53(2) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) | |
| | | | | 3.56(4) | | | [177Lu] | NMR-ON | 1996Ko26 | PR C54 1027 (96) | |
| 71 Lu 174 | 0 | 3.3 y | 1- | +1.988(5) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) | |
| | | | | 1.9(3) | | | [173Lu] | NO/S | 1975Kr11 | PR C12 1999 (75) | |
| | | | | | +0.773(5) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) | |
| | 171 | 142 d | 6- | +1.492(16) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) | |
| | | | | 1.497(10) | | | | NMR/ON | 1991Hi19 | PL B263 29 (91) | |
| | | | | | +4.80(5) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) | |
| 71 Lu 175 | 0 | stable | 7/2+ | +2.2323(11) | | | | AB/D | 1985Br09 | NP A440 407 (85) | |
| | | | | +2.2327(11) | | | | N, OP/RD | 1975Mu15 | ZP A275 305 (75) | |
| | | | | +2.23799(6) | | | [2H] | N, AB | 1962Re02/1962Ri04 | PR 126 1493 (62)/PR 126 240 (62) | |
| | | | | | +3.49(2) a | R | | Mu-X | 1979De29 | NP A326 418 (79) | |
| | | | | | 3.62(9) a | | | Pi-X | 1983Ol03 | NP A403 572 (83) | |
| | 114 | 100 ps | 9/2+ | 11/2+ | +2.01(15) | | | | IPAC, R | 1969Wa30 | PhSS 32 151 (69) |
| | | | | | 251 | 42 ps | | +2.0(7) | | | IPAC |
| 71 Lu 176 | 0 | 3.6x10 ¹⁰ y | 7- | +3.162(12) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) | |
| | | | | +3.169(5) | | | | AB/D | 1985Br09 | NP A440 407 (85) | |
| | | | | | +4.92(5) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) | |
| | | | | | +4.92(3) | | [175Lu] | AB | 1985Br09/1962Sp03 | NP A440 407 (85)/PPS 79 787 (62) | |
| | | | | | +4.97(3) | | [175Lu] | AB | 1962Sp03 | PPS 79 787 (62) | |
| | | | | | 5.07(7) a | | | Pi-X | 1983Ol03 | NP A403 572 (83) | |
| | 127 | 3.68 h | 1- | 1- | +0.311(7) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | | +0.3185(6) | | | [175Lu] | AB, R | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | | +0.318(3) | | | [175Lu] | AB, R | 1975Mu15 | ZP A275 305 (75) |
| | | | | | | -1.450(12) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | -1.47(1) | | | [175Lu] | AB | 1965Wh03 | PR 137 B477 (65) | |
| 71 Lu 177 | 0 | 6.71 d | 7/2+ | +2.239(7) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) | |
| | | | | +2.239(11) | | | [175Lu] | AB, R | 1975Mu15 | ZP A275 305 (75) | |
| | | | | +2.2384(14) | | | | AB,R | 1998Ge13 | EurPJ A3 225 (98) | |
| | | | | | +3.39(3) | R | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) | |
| | | +3.39(2) | | [175Lu] | AB | 1962Pe07 | PR 126 252 (62) | | | | |
| | 122 | 116 ps | 9/2+ | +2.2(8) | | | | IPAC | 1973Il02 | IzUz 1973n4 79 (73) | |
| | 150 | 120 ns | 9/2- | +5.5(3) | | | | TDPAC | 1977Ne11 | HFI 3 257 (77) | |
| 970 | 160 d | 23/2 | +2.308(11) | | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) | | |
| | | | 2.337(13) | | | [177Lu] | NMR-ON | 1996Ko26 | PR C54 1027 (96) | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|----------|---------|-------|--------------------|------------|-------------|---------|-----------------------------------|----------------------------------|
| | | | | 2.93(7) | | [177Lu] | NO/S | 1974Kr12/1975Sc16 | PR C10 825 (74)/ZP A272 203 (75) |
| | | | | | +5.71(5) | R | [175Lu] | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | | 5.2(5) | | [177Lu] | NMR-ON | 1996Ko26 |
| | | | | | 4.2(7) | | [175Lu] | NO/S | 1983Oe01 |
| 71 Lu 178 | 0 | 28.4 m | 1+ | -1.377(9) | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | | +0.708(10) | R | [175Lu] | CFBLS | 1998Ge13 |
| | 120 | 23.1 m | 9- | +4.834(9) | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | | +5.39(5) | R | [175Lu] | CFBLS | 1998Ge13 |
| 71 Lu 179 | 0 | 4.59 h | 7/2+ | +2.375(12) | | [175Lu] | CFBLS | 1998Ge13 | EurPJ A3 225 (98) |
| | | | | | +3.32(3) | R | [175Lu] | CFBLS | 1998Ge13 |
| 72 Hf 162 | >yrastr | — | — | g(avge) = +0.21(4) | | | TF | 1998We02 | PR C57 621 (98) |
| 72 Hf 163 | >yrastr | — | — | g(avge) = +0.18(6) | | | TF | 1998We02 | PR C57 621 (98) |
| 72 Hf 164 | >yrastr | — | — | g(avge) = +0.23(3) | | | TF | 1998We02 | PR C57 621 (98) |
| 72 Hf 165 | > yrastr | — | — | g(avge) = +0.14(3) | | | TF | 1996We01 | PR C53 151 (96) |
| 72 Hf 166 | > yrastr | — | — | g(avge) = +0.19(4) | | | TF | 1996We01 | PR C53 151 (96) |
| 72 Hf 168 | 124 | 1.24 ps | 2+ | 0.34(6) | | | IPAC | 2012Wo03 | PR C85 037304 (12) |
| | >1213 | ~ 1 ps | >6+ | g(avge) = +0.07(4) | | | IMPAC | 1975Sk01 | NP A238 159 (75) |
| 72 Hf 170 | 100 | 1.21 ns | 2+ | 0.56(10) | | | IPAC | 2007WO08 | PR C76 047308 (07) |
| 72 Hf 171 | 0 | 12.1 h | 7/2+ | -0.674(12) | | | CFBLS | 2000Ye02 | JP G26 839 (00) |
| | | | | | +3.46(3) | R | CFBLS | 2000Ye02 | JP G26 839 (00) |
| | 22 | 29.5 s | 1/2- | +0.526(16) | | | CFBLS | 2000Ye02 | JP G26 839 (00) |
| 72 Hf 172 | 95 | 1.28 ns | 2+ | 0.50(10) | | | IPAC | 2009BE42 | PR C80 057303 (09) |
| | >1037 | ~0.5 ps | >6+ | g(avge) = +0.14(4) | | | IMPAC | 1975Sk01 | NP A238 159 (75) |
| | 1685 | 4.8 ns | (6+) | +5.6(6) | | | TDPAD | 1980Wa23 | NP A349 1 (80) |
| | 2006 | 163 ns | (8-) | +7.96(7) | | | TDPAD | 1980Wa23 | NP A349 1 (80) |
| 72 Hf 173 | 0 | 23.6 h | 1/2- | +0.502(7) | | [177,179Hf] | CFBLS | 1999Le11 | PRL 82 2476 (99) |
| | 1984 | 19.5 ns | 23/2- | +6.6(2) | | | TDPAD | 1980Wa23 | NP A349 1 (80) |
| 72 Hf 174 | 1549 | 138 ns | (6+) | +5.42(5) | | | TDPAD | 1980Wa23 | NP A349 1 (80) |
| 72 Hf 175 | 0 | 70 d | 5/2- | -0.677(9) | | | LRS | 2002Ni12 | PRL 88 094801 (02) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|------|------------|-------|-------------|------------|-------------|-------------|-----------------------------------|----------------------------------|------------------|
| | | | | -0.62(3) | | | LRS | 1997Ji02 | PR C55 1545 (97) | |
| | | | | 0.54(3) | | [178Hf 93] | NMR/ON | 1986He10 | ZP B63 241 (86) | |
| | | | | 0.58(3) | | [180Hf 93] | NMR/ON | 1986He10 | ZP B63 241 (86) | |
| | | | | | +2.72(2) | R | LRS | 2002Ni12 | PRL 88 094801 (02) | |
| | | | | | +2.6(2) | | LRS | 1997Ji02 | PR C55 1545 (97) | |
| | | | | | +2.8(4) | | [178Hf 93] | NO/S | 1973Ka31 | PL 46B 62 (73) |
| 72 Hf 176 | 88 | 1.47 ns | 2+ | +0.63(6) | | [180Hf] | IPAC | 1996Al20 | ZP A355 363 (96) | |
| | | | | +0.54(4) | | | CEAD | 1968Be04 | NP A109 201 (68) | |
| | 219 | 87.9 ps | 4+ | +1.34(15) | -2.10(2) a | R | Mu-X | 1984Ta10 | PR C30 350 (84) | |
| | | | | | | | IPAC | 1996Al20 | ZP A355 363 (96) | |
| 72 Hf 177 | 0 | stable | 7/2- | +0.7935(6) | | | AB/D | 1973Bu07/1973Bu25 | PL 43B 479 (73)/ZP 260 157 (73) | |
| | | | | | +3.37(3) a | R | Mu-X | 1984Ta04 | PR C29 1830 (84) | |
| | | | | | +3.36(3) | | [179Hf] | AB | 1973Bu25 | ZP 260 157 (73) |
| | 113 | 530 ps | 9/2- | +1.03(3) d | | | IPAC | 1996Al20 | ZP A355 363 (96) | |
| | | 583 ps | 9/2- | +0.91(2) | | | IPAC | 1991De24 | PR C44 2213 (91) | |
| | | 490 ps | 9/2- | +1.08(4) | | | IPAC, R | 1975Hu15 | PR C12 2013 (75) | |
| | | | | | 1.30(2) a | R | Mu-X | 1984Ta10 | PR C30 350 (84) | |
| | 250 | 97 ps | 11/2- | +1.5(5) | | [177Hf 113] | IPAC | 1968Br15 | CJP 46 1523 (68) | |
| | 321 | 0.67(2) ns | 9/2+ | -0.73(9) | | | IPAC | 1969Hu06 | NP A127 609 (69) | |
| 72 Hf 178 | 93 | 1.47 ns | 2+ | +0.48(3) | | | CEAD | 1968Be04 | NP A109 201 (68) | |
| | | | | +0.60(4) | | | IPAC | 1962Ka14 | ArkF 22 257 (62) | |
| | | | | | -2.02(2) a | R | Mu-X | 1984Ta10 | PR C30 350 (84) | |
| | 1147 | 4 s | 8- | +3.10(1) | | [178m1Hf] | CLS | 2007Bl14 | PL B645 330 (07) | |
| | | | | | +4.99(4) | R | [177,179Hf] | CLS | 2007Bl14 | PL B645 330 (07) |
| | 1554 | 77 ns | 6+ | +5.84(5) | | | TDPAD | 1980Wa23 | NP A349 1 (80) | |
| | | | | +5.89(9) | | | TDPAD | 1978Fa17 | HFI 4 216 (78) | |
| | 2446 | 31 y | 16+ | +8.16(4) | | [177Hf] | CFBLS | 1994Bo15 | PRL 72 2689 (94) | |
| | | | | | +6.00(7) | R | [177Hf] | CFBLS | 1994Bo15 | PRL 72 2689 (94) |
| 72 Hf 179 | 0 | stable | 9/2+ | -0.6409(13) | | | AB/D | 1973Bu25 | PL 43B 479 (73)/ZP 260 157 (73) | |
| | | | | | +3.79(3) a | | Mu-X, AB | 1984Ta04/1973Bu25 | PR C29 1830 (84)/ZP 260 157 (73) | |
| | | | | | +3.93(5) a | | Pi-X | 1983Ol03 | NP A403 572 (83) | |
| | | | | | +5.3(5) | | AB, R | 1977Bu23 | PL 62A 307 (77) | |
| | 123 | 37 ps | 11/2+ | | 1.88(3) a | | Mu-X | 1984Ta10 | PR C30 350 (84) | |
| | 1106 | 25.1 d | 25/2- | 7.4(3) | | [177Hf 113] | NO/S | 1975Hu15 | PR C12 2013 (75) | |
| 72 Hf 180 | 93 | 1.53 ns | 2+ | +0.61(3) | | | IPAC | 1996Al20 | ZP A355 363 (96) | |
| | | | | +0.51(8) | | [178Hf 93] | ME | 1972JhZZ | BAPS 17 545 (72) | |
| | | | | +0.53(3) | | | CEAD | 1968Be04 | NP A109 201 (68) | |
| | | | | +0.77(7) | | | IPAC | 1961Bo25 | ZP 165 57 (61) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | R | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------------|-------------------------|------------|-----------------------|----------------------------|---|-------------------------------|------------------|--|---|
| | 309 | 75.3 ps | 4+ | +1.4(2) +2.0(4) | -2.00(2) a | R | | Mu-X IPAC | 1984Ta10 1996Al20 | PR C30 350 (84) ZP A355 363 (96) |
| | 641 | 9.0 ps | 6+ | +2.0(4) | | | | IPAC | 1961Bo25 | ZP 165 57 (61) |
| | 1142 | 5.5 h | 8- | +8.7(10) 9.0(9) | | | [180Hf 93] | ME NO/S | 1971Ko29 1976Kr11 | PRL 27 1593 (71) PR C14 656 (76) |
| | | | | | +4.6(3) | R | [178Hf 93] | NO/S | 1973Ka31 | PL 46B 62 (73) |
| 73 Ta 169 | 170+x, 220 | 44, 54 ns | 5/2-, 9/2- | | Q(5/2-)/Q(9/2-) = 1.87(13) | | | TDPAD | 2005Ku40 | Eur.Phys.J A 26 311 (05) |
| 73 Ta 171 | 184 | 45 ns | 9/2- | | (+)2.81(17) (+)3.1(2) | R | [181Ta] [181Ta] | R TDPAD | 2013SiZZ 1995Do32 | IAEA Rept INDC(NDS)-0650 (2013) HFI 96 223 (95) |
| 73 Ta 173 | 0 | 3.14 h | 5/2- | 1.70(3) | | | | NMR/ON R | 1991Ko25 2013SiZZ | NP A534 344 (91) IAEA Rept INDC(NDS)-0650 (2013) |
| | 166 | 225 ns | 9/2- | +2.66(8) | -1.8(2) (-1.9(2)) | R | [181Ta] [181Ta 482] | NO/S TDPAD | 1983Ed01 2006TH07 | PL 133B 44 (83) PR C74 034329 (06) |
| | 1713 | ~ 100 ns | 21/2- | +6.51(16) | | | | TDPAD | 2006TH07 | PR C74 034329 (06) |
| 73 Ta 175 | 0 | 10.5 h | 7/2+ | 2.27(5) 2.27(5) | | | [181Ta] [181Ta] | NMR/ON NMR/ON | 1984Oh07 1984Ed01 | JPJa 53 2479 (84) NP A413 247 (84) |
| | | | | | +3.5(3) (+)3.6(4) | R | [181Ta] [181Ta 482] | R NO/S | 2013SiZZ 1983Ed01 | IAEA Rept INDC(NDS)-0650 (2013) PL 133B 44 (83) |
| 73 Ta 177 | 0 | 56.6 h | 7/2+ | 2.25(5) 2.25(5) | | | [181Ta] [181Ta] | NMR/ON NMR/ON | 1984Oh07 1984Ed01 | JPJa 53 2479 (84) NP A413 247 (84) |
| | 70 | 73 ns | 5/2+ | +4.8(5) | | | | PPDAC | 1976Ao02/1974Ao01 | NP A272 47 (76)/NIM 119 477 (74) |
| | 186 | 2.78 μ s | 5/2- | +2.05(13) | | | | TDPAC | 1978Be67 | IzF 42 2286 (78) |
| | 1355 | 5.0 μ s | 21/2- | +0.080(14) | | | | IPAD | 1982Ao04 | NP A381 13 (82) |
| 73 Ta 178 | 0 + x | 9.3 m | 1+ | 2.740(12) +2.8(2) | | | [181Ta 482] [181Ta] | NMR/ON NO/S | 1987Ni05 1978Ru05 | JPJa 56 492 (87) HFI 4 206 (78) |
| | | | | | +0.63(6) +0.65(6) | R | [181Ta] | R NO/S | 2013SiZZ 1983Ha49 | IAEA Rept INDC(NDS)-0650 (2013) HFI 15 105 (83) |
| 73 Ta 179 | 0 | 1.82 y | 7/2+ | +2.289(9) | | | [181Ta] [181Ta] [181Ta] | LRS R LRS | 1996Wa02 2013SiZZ 1996Wa02 | PR C53 611 (96) IAEA Rept INDC(NDS)-0650 (2013) PR C53 611 (96) |
| 73 Ta 180 | 75 | >1.2x10 ¹⁵ y | 9- | +4.825(11) 4.77(5) | | | [181Ta] | LRS ABLFS | 1994Wa34 1980Bu09 | PR A50 4639 (94) PL 92B 64 (80) |
| | | | | | "+4.80(3) +4.95(2) | R | [181Ta] | R LRS | 2013SiZZ 1994Wa34 | IAEA Rept INDC(NDS)-0650 (2013) PR A50 4639 (94) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | | |
|----------|------|---------|-------|--------------------------|---------|-------------|-------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------------|--|
| 74 W 180 | 104 | 1.22 ns | 2+ | 0.51(3) | | [182W 100] | ME | 1973Zi02 | ZP 262 413 (73) | | | |
| | | | | | -2.1(4) | R | [182W 100] | ME | 1973Zi02/1972He01 | ZP 262 413 (73)/PR C5 219 (72) | | |
| 74 W 182 | 100 | 1.37 ns | 2+ | 0.52(2) + 0.528(12) | | [184W 111] | ME | 1968Pe06 | PR 170 1066 (68) | | | |
| | | | | | | | [183W] | CEAD | 1972Ca12 | CJP 50 736 (72) | | |
| | | | | | | | | CER | 1977RuZV | BAPS 22 1032 (77) | | |
| | | | | | 329 | 64 ps | 4+ | +0.9(2) | | IPAC | 1972Be94 | DUzb 1972n1 32 (72) |
| | | | | | 1289 | 1.12 ns | 2- | +1.7(2) | | IPAC | 1973Se14 | NP A211 573 (73) |
| | | | | | 1374 | 78 ps | 3- | 1.0(3) 2.2(3) | | [182W 100] | IPAC | 1972He10 1973Se14 |
| 74 W 183 | 0 | stable | 1/2- | +0.11778476(9) | | [2H] | N | 1974Sa25 | ZNat 29a 1763 (74) | | | |
| | | | | | 47 | 184 ps | 3/2- | -0.1(1) | | ME | 1967Ag02 | PR 155 1342 (67) |
| | | | | | | -1.8(4) | R | [182W 100] | ME | 1967Ag02 | PR 155 1342 (67) | |
| | 99 | 0.71 ns | 5/2- | +0.91(4) | | [183W] | ME, R, CEAD | 1968Pe06/1967Gi03 | PR 170 1066 (68)/NP A91 633 (67) | | | |
| | | | | | | -2.0(3) | R | [182W 100] | ME | 1967Ag02/1974Ge17 | PR 155 1342 (67)/ZP 267 61 (74) | |
| | 207 | | 7/2- | 0.4(2) | | [184W 111] | TF | 1992La02 | NP A536 397 (92) | | | |
| | 309 | | 9/2- | 1.53(14) | | [184W 111] | TF | 1992La02 | NP A536 397 (92) | | | |
| | 475 | | 11/2- | 1.1(2) | | [184W 111] | TF | 1992La02 | NP A536 397 (92) | | | |
| | 551 | | 9/2- | 2.2(9) | | [184W 111] | TF | 1992La02 | NP A536 397 (92) | | | |
| | 631 | 10 ps | 13/2- | 2.6(3) | | [184W 111] | TF | 1992La02 | NP A536 397 (92) | | | |
| | 1062 | 3.0 ps | 17/2- | 2.6(7) | | [184W 111] | TF | 1992La02 | NP A536 397 (92) | | | |
| 74 W 184 | 111 | 1.25 ns | 2+ | +0.578(14) +0.576(14) | | | IPAC | 1984Al06 | ZP A316 87 (84) | | | |
| | | | | | | | CEAD | 1972Ca12 | CJP 50 736 (72) | | | |
| | | | | | | -1.9(2) | R | | CER | 1977RuZV | BAPS 22 1032 (77) | |
| | 364 | 46 ps | 4+ | +1.17(9) | | [184W 111] | IPAC, R | 1984Al06 | ZP A316 87 (84) | | | |
| | 748 | 5.5 ps | 6+ | +1.9(2) +1.8(3) | | [184W 364] | TF | 1985St18 | ZP A322 287 (85) | | | |
| | | | | | | [184W 111] | IPAC, R | 1984Al06 | ZP A316 87 (84) | | | |
| | 904 | 1.73 ps | 2+ | +0.24(8) | | [184W 364] | TF | 1985St18 | ZP A322 287 (85) | | | |
| | | | | | +0.1(4) | R | | CER | 1977Ob02 | NP A291 510 (77) | | |
| | 1252 | 1.32 ps | 8+ | +2.9(6) | | [184W 364] | TF | 1985St18 | ZP A322 287 (85) | | | |
| 74 W 185 | 0 | 75.1 d | 3/2- | +0.543(14) | | [187W] | NMR/ON | 2004OH16 | Hyp Int 159 277 (2004) | | | |
| 74 W 186 | 123 | 1.05 ns | 2+ | 0.62(3) +0.62(2) | | | TF | 1991St04 | NP A528 447 (91) | | | |
| | | | | | | | [182W 100] | ME, RIGV | 1968Pe06/1970Be36 | PR 170 1066 (68)/NP A151 401 (70) | | |
| | | | | | | -1.6(3) | R | | CER | 1977RuZV | BAPS 22 1032 (77) | |
| | 396 | 36 ps | 4+ | +1.28(10) | | [186W 123] | TF | 1985St07 | ZP A320 669 (85) | | | |
| | | | | | | -2.6(13) | R | | CER | 1970McZQ | ORNL-4513 56 (70) | |
| | 737 | 4.4 ps | 2+ | +0.39(8) | | [186W 123] | TF | 1985St07 | ZP A320 669 (85) | | | |
| | | | | | 1.3(3) | R | | CER | 1977Ob02 | NP A291 510 (77) | | |
| | | | | | +1.3(3) | | | CER | 1977Mc11 | NP A289 253 (77) | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-------------|-----------------|--------------|-------------------------|------------------------------------|----------------------------|----------------------|---|--|
| | 809 | 3.5 ps | 6+ | +1.9(4) | 0.7(4) | [186W 123] | CER TF | 1970McZQ 1985St07 | ORNL-4513 56 (70) ZP A320 669 (85) |
| 74 W 187 | 0 | 23.9 h | 3/2- | 0.621(15) | | | NMR/ON | 1987Oh10 | HFI 36 219 (87) |
| 75 Re 179 | 0 | 19.7 m | (5/2)+ | 2.8(4) | | | NO/S | 1992Bo39 | HFI 75 307 (92) |
| 75 Re 180 | 0 | 2.4 m | (1)- | 1.6(2) | | | NO/S | 1992Bo39 | HFI 75 307 (92) |
| 75 Re 181 | 0 357 | 19.9 h 76 ns | 5/2+ 5/2- | 3.19(7) +2.03(10) | | [185,187Re] | NMR/ON TDPAC | 1981Ha22 1978Be67 | NP A363 269 (81) IzF 42 2286 (78) |
| 75 Re 182 | 0 | 64.0 h | 7+ | 2.84(6) 2.83(6) | | [185,187Re] [185,187Re] | NMR/ON NO/S | 1981Ha22 1980Sp01 | NP A363 269 (81) PR C21 361 (80) |
| | 0 + x | 12.7 h | 2+ | 3.26(10) 3.2(3) | +4.1(3) | R [187Re] | NO/S NMR/ON | 1983Ha49 1987Oh10 | HFI 15 105 (83) HFI 36 219 (87) |
| | | | | | | [185,187Re] | NO/S | 1980Sp01 | PR C21 361 (80) |
| | | | | | +1.8(2) | R [187Re] | NO/S, R | 1985Ha41/1981Er01 | HFI 22 19 (85)/PR C23 1739 (81) |
| | 236 2256 | 570 ns 82 ns | 2- 16- | +2.15(8) +3.82(13) | | | TDPAC TDPAD | 1978Be67 1988Ja02 | IzF 42 2286 (78) PL 202B 185 (88) |
| 75 Re 183 | 0 | 70.0 d | 5/2+ | 3.168(15) +3.160(13) | | [186Re] [186Re] | NMR/ON NMR/ON, R | 1987Oh10 1987Oh10/1981Ru11 | HFI 36 219 (87) HFI 36 219 (87)/HFI 11 37 (81) |
| | | | | | +2.3(2) | R [187Re] | NO/S | 1983Ha49 | HFI 15 105 (83) |
| | | | | | +2.1(2) | [187Re] | NO/S, R | 1985Ha41/1981Er01 | HFI 22 19 (85)/ PR C23 1739 (81) |
| | 497 | 7 ns | 9/2- | +5.14(11) | | [19F 197] [187Re] | TDPAD TDPAC | 1980Za09 1978Ne14 | IzF 44 1988 (80) HFI 4 211 (78) |
| 75 Re 184 | 0 | 38.0 d | 3- | (+)2.53(5) | | [185,187Re] | NMR/ON | 1981Ha22 | NP A363 269 (81) |
| | | | | | +2.8(2) | R [187Re] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +2.9(2) | [187Re] | NO/S | 1983Ha49 | HFI 15 105 (83) |
| | | | | | +3.1(3) | [187Re] | NO/S | 1981Er01 | PR C23 1739 (81) |
| | 188 | 169 d | 8+ | (+)2.88(10) | | | NO/S | 1973Hu06/1973Kr01 | NP A210 317 (73)/PR C7 263 (73) |
| 75 Re 185 | 0 | stable | 5/2+ | +3.1871(3) | | [23Na] | N | 1951Al11 | PR 82 105 (51) |
| | | | | | +2.18(2) a 2.21(4) a 2.19(2) | R [187Re] | Pi-X, O Mu-X Q | 1981Ko11/1966Ku07 1981Ko11 1978Se09 | NP A360 187 (81)/ZP 196 365 (66) NP A360 187 (81) PR C18 2430 (78) |
| | 125 | 10.2 ps | 7/2+ | +2.1(8) | | | PAC | 1973BeYN | Cf72 Kiev, 150 (72) |
| 75 Re 186 | 0 | 90.6 h | 1- | +1.739(6) | | | AB/D AB | 1965Ar01 1981Bu13/1965Ar01 | PR 138 B310 (65) ZP A302 281 (81)/ PR 138 B310 (65) |
| | | | | | +0.618(6) +0.60(6) | R [187Re] | NO/S | 1983Ha49 | HFI 15 105 (83) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|------------------------|-------|----------------|------------|-------------|-------------|------------------------------------|------------------------------------|
| | | | | | +0.54(9) | [187Re] | NO/S, R | 1985Ha41/1983Oe01 | HFI 22 19 (85)/ZP A310 233 (83) |
| | 314 | 23.1 ns | 3+ | +2.18(6) | | [19F 197] | TDPAD | 1980Za09 | IzF 44 1988 (80) |
| | 330 | 17.8 ns | 5+ | +4.62(11) | | [19F 197] | TDPAD | 1980Za09 | IzF 44 1988 (80) |
| 75 Re 187 | 0 | 4 x 10 ¹⁰ y | 5/2+ | +3.2197(3) | | [23Na] | N | 1951Al11 | PR 82 105 (51) |
| | | | | | +2.07(2) a | R | Pi-X, O | 1981Ko11/1966Ku07 | NP A360 187 (81)/ZP 196 365 (66) |
| | | | | | 2.09(4) a | | Mu-X | 1981Ko11 | NP A360 187 (81) |
| | 134 | 9.9 ps | 7/2+ | +1.9(9) | | | PAC | 1973BeYN | Cf72 Kiev, 150 (72) |
| | 206 | 555 ns | 9/2- | +5.11(9) | | | TDPAC | 1978Be67 | IzF 42 2286 (78) |
| | | | | +5.02(5) | | | TDPAC | 1963Ko19/1971Ni01/ | NP 49 161 (63)/NP 164 411 (71) |
| | | | | | 3.04(5) | R | R | 1963Wa16 | /ZP 175 520 (63)/PSNI 15B 349 (72) |
| | | | | | 3.3(7) | [187Re] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | | [187Re] | TDPAC | 1973Ha61 | JCP 58 3339 (73) |
| 75 Re 188 | 0 | 16.9 h | 1- | +1.788(5) | | | AB/D | 1965Ar01 | PR 138 B310 (65) |
| | | | | | +0.572(6) | R | AB | 1981Bu13 | ZP A302 281 (81)/ PR 138 B310 (65) |
| | | | | | +0.36(16) | [187Re] | NO/S | 1983Oe01 | ZP A310 233 (83) |
| 76 Os 182 | 7049 | 150 ns | 25(+) | +10.6(2) | | | TDPAD | 1989Al19 | PL B228 463 (89) |
| | | | | | 4.2(2) | R | [188Os 155] | 1991Br25 | PL B264 17 (91) |
| 76 Os 183 | 0 | 13.0 h | 9/2+ | (-).0.794(14) | | | NMR/ON | 1980Ha24 | ZP A295 345 (80) |
| | | | | | +3.1(3) | R | [188Os 155] | 1985Ha41 | HFI 22 19 (85)/PR B22 2248 (80) |
| 76 Os 184 | 120 | 1.18 ns | 2+ | | -2.7(12) | R | [188Os 155] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -2.4(11) | | CER | 1972La16 | PR C6 613 (72) |
| 76 Os 186 | 137 | 830 ps | 2+ | +0.56(2) | | | ME, CEAD | 1970Wa06/1967Gi02 | ZP 230 80 (70)/NP A91 85 (67) |
| | | | | +0.52(3) | | | TF | 1982Le02 | PR C25 293 (82) |
| | | | | | -1.63(4) a | R | Mu-X | 1981Ho22 | PR C24 1667 (81) |
| | | | | | -1.61(5) | [188Os 155] | ME | 1972Wa24 | ZP 254 112 (72) |
| | | | | | -1.2(2) | | CER | 1979RuZP | ARRo 79 (78) |
| | 1775 | 10.4 ns | 7- | -0.22(14) | | | TDPAD | 1984Go06 | YadF 39 518 (84) |
| 76 Os 187 | 0 | stable | 1/2- | +0.06465189(6) | | [2H] | N | 1974Sa25 | ZNat 29a 1763 (74) |
| | | | | +0.0665(6) | | [189Os] | O | 1989Ra17 | JPJa 17 891 (62) |
| 76 Os 188 | 155 | 710 ps | 2+ | +0.58(2) | | | IMPAC, R | 1985St05 | NP A435 635 (85) |
| | | | | 0.61(3) | | | ME | 1970Wa06 | ZP 230 80 (70) |
| | | | | +0.60(3) | | | TF | 1982Le02 | PR C25 293 (82) |
| | | | | | -1.46(4) a | R | Mu-X | 1981Ho22 | PR C24 1667 (81) |
| | | | | | -1.33(10) | | CER | 1979RuZP | ARRo 79 (78) |
| | | | | | -1.2(3) | | CER | 1980Ba42 | PR C22 2383 (80) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|------|---------|------|---------------|------------|--------------|----------|-----------------------------------|-----------------------------------|-----------------------------------|
| | 478 | 19 ps | 4+ | +1.43(14) | | [188Os 155] | TF | 1985St05 | NP A435 635 (85) | |
| | 633 | 6.3 ps | 2+ | +0.78(7) | | [188Os 155] | TF | 1985St05 | NP A435 635 (85) | |
| | | | | | +1.0(3) | | R | CER | 1980Ba42 | PR C22 2383 (80) |
| | 940 | 2.3 ps | 6+ | +2.5(4) | | [188Os 155] | TF | 1985St05 | NP A435 635 (85) | |
| | 966 | 5.2 ps | 4+ | +1.6(5) | | [188Os 155] | TF | 1985St05 | NP A435 635 (85) | |
| | 1771 | 13.9 ps | 7- | -0.17(11) | | | TDPAD | 1984Go06 | YadF 39 518 (84) | |
| | 2121 | | (3-) | | 1.69(9) a | | R | Mu-X | 1979Ho23 | PR C20 1934 (79) |
| 76 Os 189 | 0 | stable | 3/2- | +0.659933(4) | | [1H] | N | 1968Sc03/1954Lo36 | PL 26A 258 (68)/PR 95 291 (54) | |
| | | | | | +0.98(6) | | | LRFS | 2002Kr01 | PS 65 56 (02) |
| | | | | | +0.86(3) | | R | [188Os 155] ME | 1972Wa24 | ZP 254 112 (72) |
| | 36 | 0.50 ns | 1/2- | +0.23(3) | | [189Os] | ME | 1969Wa02 | PL 28B 548 (69) | |
| | 70 | 1.63 ns | 5/2- | +0.988(6) | | [189Os] | ME, IPAC | 1972Wa24/1968Pe09 | ZP 254 112 (72)/PR 174 1509 (68) | |
| | | | | | | | | 1971Be23 | /IzF 35 2295 (71) | |
| | | | | | -0.63(2) | | R | [189Os] ME | 1972Wa24 | ZP 254 112 (72) |
| | 95 | 0.23 ns | 3/2- | -0.32(5) | | [189Os] | IPAC | 1971Be23 | IzF 35 2295 (71) | |
| 76 Os 190 | 187 | 366 ps | 2+ | +0.69(3) | | | | TF | 1992ST06 | ZP A342 373 (92) |
| | | | | +0.70(2) | | | | IMPAC, R | 1985St05 | NP A435 635 (85) |
| | | | | | -1.18(3) a | | R | Mu-X | 1981Ho22 | PR C24 1667 (81) |
| | | | | | -1.26(8) | [188Os 155] | | ME | 1972Wa24 | ZP 254 112 (72) |
| | | | | | 1.00(10) | | | CER | 1979RuZP | ARRo 79 (78) |
| | | | | | -1.0(3) | [188Os 155] | | CER | 1980Ba42 | PR C22 2383 (80) |
| | 548 | 14 ps | 4+ | +1.6(2) | | [190Os 187] | | TF | 1985St05 | NP A435 635 (85) |
| | 558 | 12.5 ps | 2+ | +0.69(9) | | [190Os 187] | | TF | 1985St05 | NP A435 635 (85) |
| | | | | | +0.8(5) | [188Os 155] | R | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.9(4) | | | CER | 1980Ba42 | PR C22 2383 (80) |
| | 1705 | 9.9 m | 10- | -0.56(+8,-12) | | | | RENO | 1987Be54 | PRL 59 2923 (87) |
| 76 Os 191 | 0 | 15.4 d | 9/2- | +0.96(3) | | | | NMR/ON(β) | 1996Oh03 | PR C54 1129 |
| | | | | | +2.5(2) | [186 Os 137] | R | NO/S, ME | 1979Er09/1979Er14 | NP A332 41 (79)/PL 70A 246 (79) |
| 76 Os 192 | 206 | 289 ps | 2+ | +0.79(2) | | | | IMPAC, R | 1985St05 | NP A435 635 (85) |
| | | | | | -0.96(3) a | | R | Mu-X | 1981Ho22 | PR C24 1667 (81) |
| | | | | | -0.8(2) | | | CER | 1983Ch35 | PR C28 1570 (83) |
| | | | | | -0.60(13) | | | CER | 1979RuZP | ARRo 79 (78) |
| | | | | | -0.9(2) | | | CER | 1988Li22 | NP A485 399 (88) |
| | 489 | 30.1 ps | 2+ | +0.58(4) | | [192Os 206] | | TF | 1985St05/1983Bo13 | NP A435 635 (85)/NP A401 175 (83) |
| | | | | | -0.8(3) | [188Os 155] | | CER | 1980Ba42 | PR C22 2383 (80) |
| | 580 | 13.4 ps | 4+ | +1.56(12) | | [192Os 206] | | TF | 1985St05/1983Bo13 | NP A435 635 (85)/NP A401 175 (83) |
| | 910 | 18 ps | 4+ | +1.7(4) | | [192Os 206] | | TF | 1985St05 | NP A435 635 (85) |
| 76 Os 193 | 0 | 30.5 h | 3/2- | 0.730(2) | | | | NMR/ON | 1989Ed01 | PR C40 2246 (89) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|----|---------|---------|----------------|------------|-------------|-------------|-----------------------------------|---------------------------------|-------------------------|
| | | | | sign positive | | | NO/CP | 1991Sc28 | ZP A340 235 (91) | |
| | | | | +0.75(3) | | | NO/ME, R | 1985Be03 | JP G11 287 (85) | |
| | | | | 0.78(7) | | | NO/S, R | 1984Gh01 | NP A426 20 (84) | |
| | | | | | +0.48(6) | R | [188Os 155] | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) | |
| | | | | | +0.47(6) | | [186Os 137] | 1985Be03/1979Er09 | JP G11 287 (85)/NP A332 41 (79) | |
| 77 Ir 180 | 0 | 1.5 m | unknown | 2.2(2) [I=3] | | | NO/S | 1992Bo39 | HFI 75 307 (92) | |
| | | | | 2.39(13) [I=4] | | | NO/S | 1992Bo39 | HFI 75 307 (92) | |
| | | | | 2.5(2) [I=5] | | | NO/S | 1992Bo39 | HFI 75 307 (92) | |
| | | | | 2.6(2) [I=6] | | | NO/S | 1992Bo39 | HFI 75 307 (92) | |
| | | | | 2.6(2) [I=7] | | | NO/S | 1992Bo39 | HFI 75 307 (92) | |
| 77 Ir 182 | 0 | 15 m | 3+ | +2.6(2) | | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | 2.10(9) | | | | NO/S | 1992Bo39 | HFI 75 307 (92) |
| | | | | | -1.7(6) st | R | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| 77 Ir 183 | 0 | 55 m | 5/2- | +2.40(8) | | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | 2.36(8) | | | | NO/S | 1992Bo39 | HFI 75 307 (92) |
| | | | | 2.2(6) | | | | NO/S | 1992Ro21 | HFI 75 457 (92) |
| | | | | | -1.8(7) st | R | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| 77 Ir 184 | 0 | 3.14 h | 5- | 0.696(5) | | | | NMR-ON | 1988Oh02 | JP G14 365 (88) |
| | | | | +0.72(3) | | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | 0.8(2) | | | | NO/S | 1981Sp06 | HFI 9 99 (81) |
| | | | | | +2.41(3) | R | [Ir189] | NMR-ON | 1996Se15 | PRL 77 5016 (96) |
| | | | | | +2.5(4) st | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | | +2.0(3) | | [Ir189] | NO/S | 1982Al34 | HFI 12 289 (82) |
| | | | | | +2.1(4) | | [Ir189] | NO/S | 1981Ha33 | PL 104B 365 (81) |
| 77 Ir 185 | 0 | 14.4 h | 5/2- | 2.605(13) | | | | NMR/ON | 1988Oh02 | JP G14 365 (88) |
| | | | | 2.601(14) | | | | NMR/ON | 1986De02 | ZP A323 185 (86) |
| | | | | 2.59(7) | | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | 2.5(2) | | | | NO/S | 1985Va07 | HFI 22 507 (85) |
| | | | | 2.6(2) | | | | NO/S | 1981Sp06 | HFI 9 99 (81) |
| | | | | | -1.84(12) | | | | | |
| | | | | | -2.06(14) | | [193Ir] | NMR/ON | 1988Oh02 | JP G14 365 (88) |
| | | | | | -1.7(6) st | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | | -1.9(3) | | [193Ir] | NMR/ON | 1986De02 | ZP A323 185 (86) |
| | | | | | -2.5(3) | | [193Ir] | NO/S | 1982Al34 | HFI 12 289 (82) |
| | | | | | -1.9(3) | | [193Ir] | NO/S | 1981Ha33 | PL 104B 365 (81) |
| 77 Ir 186 | 0 | 16.64 h | 5+ | 3.88(5) | | | | NO/S | 1982Al11 | JP G8 857 (82) |
| | | | | +3.8(2) | | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|-----|--------|-------|--------------|--------------|-------------|---------|--------------------------|-----------------------------------|----------------------------------|
| | | | | 3.80(+12,-2) | | | NMR/ON | 1980Ha49 | ZP A297 329 (80) | |
| | | | | 3.78(5) | | | NMR/ON | 1981Sp06 | HFI 9 99 (81) | |
| | | | | | -2.55(3) | R | [Ir189] | NMR/ON | 1996Se15 | PRL 77 5016 (96) |
| | | | | | -2.6(9) st | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | | -2.5(2) | | [189Ir] | NO/S | 1980Mu07 | HFI 7 481 (80) |
| | | | | | -2.3(2) | | [189Ir] | NO/S, ME | 1979Er06 | PL 86B 154 (79) |
| | | | | | -2.89(10) | | [189Ir] | NMR/ON | 1980Ha49 | ZP A297 329 (80) |
| | x | | 2(-) | 0.638(8) | | | NMR/ON | 1990Ed01 | HFI 59 83 (90) | |
| | | | | -0.66(3) | | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | | +1.46(2) | R | [Ir189] | NMR/ON | 1996Se15 | PRL 77 5016 (96) |
| | | | | | +1.5(2) | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| 77 Ir 187 | 0 | 10.5 h | 3/2+ | +0.17(1) | | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | | +0.941(11) | R | [Ir189] | NMR/ON | 1996Se15 | PRL 77 5016 (96) |
| | | | | | +0.9(1) st | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | 434 | 152 ns | 11/2- | +6.21(5) | | | | TDPAC | 1978HaXO | ARHMI 1977 52 (78) |
| | | | | | 2.33(14) | R | [193Ir] | TDPAC | 1978HaXO | ARHMI 1977 52 (78) |
| 77 Ir 188 | 0 | 40.5 h | 1(-) | 0.302(10) | | | [193Ir] | NMR/ON, NO/S | 1985Ed02 | PR C32 582 (85) |
| | | | | +0.33(1) | | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | | +0.484(6) | R | [Ir189] | NMR/ON | 1996Se15 | PRL 77 5016 (96) |
| | | | | | +0.54(2) | | [193Ir] | NMR/ON | 1985Ed02 | PR C32 582 (85) |
| | | | | | +0.49(3) | | [193Ir] | NMR/ON | 1988Oh05 | HFI 39 193 (88) |
| | | | | | +0.46(5) st | | | ????????? | ??????????? | ??????????? |
| 77 Ir 189 | 0 | 13.1 d | 3/2+ | +0.147(7) | | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | 0.13(+8,-4) | | | [188Ir] | NO/S | 1980Be27 | JP G6 775 (80) |
| | | | | | [+0.878(10)] | | | estimated | 1996Se15 | PRL 77 5016 (96) |
| | | | | | +0.82(8) | R | [Ir191] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.85(7) st | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | | +0.79(6) | | [Ir188] | NO/S | 1992Ka49 | NIMPR A316 158 (92) |
| | | | | | +1.0(2) | | [192Ir] | NO/S | 1985Ha41 | HFI 22 19 (85) |
| 77 Ir 190 | 0 | 11.8 d | (4)+ | 0.04(1) | | | | NO/S | 1983Al15 | JP G9 1125 (83) |
| | | | | | +2.87(16) | R | | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +2.85(14) | | [189Ir] | NO/S | 1980Mu07 | HFI 7 481 (80) |
| | | | | | +2.7(2) | | [192Ir] | NO/S | 1985Ha41 | HFI 22 19 (85) |
| 77 Ir 191 | 0 | stable | 3/2+ | +0.1507(6) | | | | AB/D | 1984Bu15 | PL 140B 17 (84) |
| | | | | +0.1461(6) | | | | N | 1968Na01/1968Na01 | PR 165 506 (68)/PR 175 696 (68) |
| | | | | +0.152(4) | | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | | +0.816(9) a | R | | Mu-X, O | 1984Ta04/1952Mu40 | PR C29 1830 (84)/PR 87 1048 (52) |
| | | | | | +0.82(8) st | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-----|---------|-------|---------------|-------------|-------------|-------------------|-----------------------------------|----------------------------------|
| | | | | | +0.8(2) st | | AB | 1978Bu17 | ZP A286 333 (78) |
| | 82 | 3.8 ns | 1/2+ | +0.600(6) | | [191Ir] | ME, R | 1983Wa31 | HFI 13 149 (83) |
| | 129 | 123 ps | 5/2+ | +0.81(6) | | | TF | 2000BE07 | NP A669 241 (00) |
| | | | | +0.86(6) | | [198Pt 407] | TF | 1996St22 | HFI 97/98 479 (96) |
| | | | | +0.45(2) | | | IMPAC, TF, R | 1986Ko20 | NP A456 349 (86) |
| | | | | +0.48(4) | | | IPAD, ME | 1980Da24 | IzF 44 1778 (80) |
| | 171 | 4.9 s | 11/2- | 6.03(4) | | | NMR/ON | 1971Es03/1974Kr06 | PL 36B 328 (71)/PR C9 2063 (74) |
| | | | | sign positive | | | NO/CP | 1991Sc28 | ZP A340 235 (91) |
| | | | | sign positive | | | NMR/ON(β) | 1996Oh03 | PR C54 1129 |
| | 179 | 39 ps | 3/2+ | +1.4(4) | | | IPAC | 1973Il02 | IzUz 1973n4 79 (73) |
| | 343 | 20 ps | 7/2+ | +1.40(6) | | | TF | 2000BE07 | NP A669 241 (00) |
| | | | | +1.35(11) | | [198Pt 407] | TF | 1996St22 | HFI 97/98 479 (96) |
| | | | | +1.7(3) | | [191Ir 129] | TF, IMPAC | 1986Ko20 | NP A456 349 (86) |
| | 503 | 9.6 ps | 9/2+ | +2.4(2) | | [198Pt 407] | TF | 1996St22 | HFI 97/98 479 (96) |
| | | | | +3.1(11) | | [191Ir 129] | TF | 1986Ko20 | NP A456 349 (86) |
| | 686 | 2.7 ps | 7/2+ | +0.8(3) | | [198Pt 407] | TF | 1996St22 | HFI 97/98 479 (96) |
| | | | | +0.5(7) | | [191Ir 129] | TF | 1986Ko20 | NP A456 349 (86) |
| | 832 | 2.8 ps | 11/2+ | +3.4(9) | | [198Pt 407] | TF | 1996St22 | HFI 97/98 479 (96) |
| 77 Ir 192 | 0 | 74.2 d | 4- | 1.924(10) | | [193Ir] | NMR/ON | 1980Ha25 | ZP A295 385 (80) |
| | | | | sign positive | | | NO/CP | 1991Sc28 | ZP A340 235 (91) |
| | | | | | +2.15(6) | R | R | 1996Se15 | PRL 77 5016 (96) |
| | | | | | +2.28(6) | | NMR/ON, R | 1985Ed02/1980Ha25 | PR C32 582 (85)/ZP A295 385 (80) |
| | | | | | +2.0(2) | | NO/S ME | 1986Gr26 | HFI 30 355 (86) |
| | | | | | +2.4(1) | | NO/S | 1985Ha41 | HFI 22 19 (85) |
| 77 Ir 193 | 0 | stable | 3/2+ | +0.1637(6) | | | AB/D | 1984Bu15 | PL 140B 17 (84) |
| | | | | +0.1591(6) | | | N | 1968Na01/1968Na01 | PR 165 506 (68)/PR 175 696 (68) |
| | | | | +0.168(8) | | [Ir191] | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | | +0.751(9) a | R | Mu-X, O | 1984Ta04/1952Mu40 | PR C29 1830 (84)/PR 87 1048 (52) |
| | | | | | +0.73(7) st | | LS | 2006VE10 | Eur Phys J A30 489 (06) |
| | | | | | +0.7(2) st | | AB | 1978Bu17 | ZP A286 333 (78) |
| | 73 | 6.2 ns | 1/2+ | +0.519(2) | | [193Ir] | ME | 1969Pe05 | PRL 23 680 (69) |
| | 139 | 88 ps | 5/2+ | +0.89(4) | | | TF | 2000BE07 | NP A669 241 (00) |
| | | | | +0.93(5) | | [198Pt 407] | TF | 1996St22 | HFI 97/98 479 (96) |
| | | | | +0.53(3) | | | TF, IMPAC, R | 1986Ko20 | NP A456 349 (86) |
| | 180 | 55 ps | 3/2+ | +1.1(4) | | | IPAC | 1973Il02 | IzUz 1973n4 79 (73) |
| | 358 | 19.8 ps | 7/2+ | +1.54(6) | | | TF | 2000BE07 | NP A669 241 (00) |
| | | | | +1.55(6) | | [198Pt 407] | TF | 1996St22 | HFI 97/98 479 (96) |
| | | | | +1.7(3) | | [193Ir 139] | TF, IMPAC | 1986Ko20 | NP A456 349 (86) |
| | 522 | 12.7 ps | 9/2+ | +2.2((2) | | [198Pt 407] | TF | 1996St22 | HFI 97/98 479 (96) |
| | | | | +3.8(11) | | [193Ir 139] | TF | 1986Ko20 | NP A456 349 (86) |
| | 621 | 4.6 ps | 7/2+ | +1.16(14) | | [198Pt 407] | TF | 1996St22 | HFI 97/98 479 (96) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-----|--------|-----------|--------------------|--------------|--------------|-----------|-----------------------------------|-------------------------------------|
| | | | | +0.5(4) | | [193Ir 139] | TF | 1986Ko20 | NP A456 349 (86) |
| | 857 | 5.1 ps | 11/2+ | +2.7(7) | | [198Pt 407] | TF | 1996St22 | HFI 97/98 479 (96) |
| 77 Ir 194 | 0 | 19.4 h | 1- | 0.39(1) | | [193Ir] | NMR/ON | 1982Ha28 | ZP A306 73 (82) |
| | | | | sign positive | | | NO/CP | 1991Sc28 | ZP A340 235 (91) |
| | | | | | +0.339(12) | R | [193Ir] | 1985Ed02/1982Ha28 | PR C32 582 (85)/ZP A306 73 (82) |
| 78 Pt 179 | 0 | 21.2 s | 1/2- | +0.43(3) | | [195Pt] | LRIMS | 1999Le52 | PR C60 054310 (99) |
| 78 Pt 180 | 153 | 370 ps | 2+ | 0.70(16) | | [184Pt 163] | PDCO | 2002Ro36 | NIMPR 489 469 (2002) |
| | | | | 0.64(12) | | | IPAC | 1998Br33 | EurPJ A3 129 (98) |
| | 411 | 52 ps | 4+ | 1.6(6) | | | PDCO | 2002Ro36 | NIMPR 489 469 (2002) |
| | (-) | (-) | 6+ to 10+ | g(avge) = +0.40(8) | | | TF | 2002Ro12 | PL B530 74 (02) |
| 78 Pt 181 | 0 | 51 s | 1/2- | +0.48(2) | | [195Pt] | LRIMS | 1999Le52 | PR C60 054310 (99) |
| 78 Pt 182 | 155 | - | 2+ | 0.46(8) | | [184Pt 163] | PDCO | 2002Ro36 | NIMPR 489 469 (2002) |
| | 420 | - | 4+ | 1.7(8) | | | PDCO | 2002Ro36 | NIMPR 489 469 (2002) |
| | (-) | (-) | 6+ to 12+ | g(avge) = +0.36(5) | | | TF | 2002Ro12 | PL B530 74 (02) |
| 78 Pt 183 | 0 | 6.5 m | 1/2- | +0.502(5) | | [195Pt] | LRIMS | 1999Le52 | PR C60 054310 (99) |
| | | | | +0.51(3) | | | LRIMS | 1990Hi08 | HFI 59 97 (90) |
| | | | | +0.52(3) | | | LRIMS | 1992Hi07 | ZP A342 1 (92) |
| | 35 | 43 s | 7/2- | +0.782(14) | | [195Pt] | LRIMS | 1999Le52 | PR C60 054310 (99) |
| | | | | 0.96(8) | | | NO/S | 1992Ro21 | HFI 75 457 (92) |
| | | | | 1.03(8) | | | NO/S | 1992St16 | HFI 75 491 (92) |
| | | | | | +3.4(3) st | R | LRIMS | 1999Le52/1992Hi07 | PR C60 054310 (99)/ZP A342 1 (1992) |
| 78 Pt 184 | 163 | 376 ps | 2+ | +0.56(6) | | | IPAC | 1996St12 | PRL 76 2246 (96) |
| | 436 | 25 ps | 4+ | 1.3(7) | | | PDCO | 2002Ro36 | NIMPR 489 469 (2002) |
| | (-) | (-) | 6+ to 14+ | g(avge) = +0.37(5) | | | TF | 2002Ro12 | PL B530 74 (02) |
| 78 Pt 185 | 0 | 70.9 m | 9/2+ | -0.723(11) | | [195Pt] | LRIMS | 1999Le52 | PR C60 054310 (99) |
| | | | | 0.774(14) | | | NMR/ON | 1990Ed01 | HFI 59 83 (90) |
| | | | | -0.83(1) | | [195Pt] | LRIMS | 1989Du01 | PL 217A 401 (89) |
| | | | | | +3.73(17) st | R | LRIMS | 1999Le52/1992Hi07 | PR C60 054310 (99)/ZP A342 1 (1992) |
| | | | | | +4.3(5) | | LRIMS | 1989Du01 | PL 217 401 (89) |
| | | | | | 3.4(5) | [189Pt] | NO/S | 1990Ed01 | HFI 59 83 (90) |
| | | | | | +4.4(3) | [191Pt] | QI-NMR/ON | 1998Hi08 | PR C57 2165 (98) |
| | | | | | +4.5(1) | [191Pt] | NMR/ON | 1993HaZU | Cf93Bern 173(93) |
| | 103 | 33 m | 1/2- | +0.503(5) | | [195Pt] | LRIMS | 1999Le52 | PR C60 054310 (99) |
| | | | | +0.540(9) | | [195Pt] | LRIMS | 1992Hi07 | ZP A342 1 (92) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|------|---------------|--------------|----------------|--------------|-----------------------------------|--------------------------------------|
| 78 Pt 186 | 192 | 260 ps | 2+ | +0.54(6) | | | IPAC | 1996St12 | PRL 76 2246 (96) |
| 78 Pt 187 | 0 | 2.35 h | 3/2- | 0.408(8) | | | NMR/ON | 1990Ed01 | HFI 59 83 (90) |
| | | | | -0.399(8) | | [195Pt] | LRIMS | 2000SaZz/1989Du01 | IPNO-DR 00-04/PL 217 401 (89) |
| | | | | -0.43(2) | | [195Pt] | LRIMS | 1992Hi07 | ZP A342 1 (92) |
| | | | | | -1.02(4) | R | LRIMS | 1992Hi07/1989Du01 | ZP A342 1 (92)/PL B217 401 (1989) |
| | | | | | -0.98(5) st | [195Pt] | LRIMS | 2000SaZQ | IPNO-DR 00-21 |
| | | | | | -1.13(5) | | LRIMS | 1989Du01 | PL 217 401 (89) |
| | | | | | -1.3(3) | [189Pt] | NO/S | 1990Ed01 | HFI 59 83 (90) |
| | | | | | -1.00(7) st | | LRIMS | 1992Hi07 | ZP A342 1 (92) |
| 78 Pt 188 | 266 | 64 ps | 2+ | +0.58(8) | | | IPAC | 1996St12 | PRL 76 2246 (96) |
| 78 Pt 189 | 0 | 10.9 h | 3/2- | -0.422(7) | | [195Pt] | LRIMS | 2000SaZz/1989Du01 | IPNO-DR 00-04/PL 217 401 (89) |
| | | | | -0.440(8) | | [195Pt] | LRIMS | 1992Hi07 | ZP A342 1 (92) |
| | | | | 0.439(9) | | [195Pt] | NMR/ON | 1985Ed05 | PL 158B 371 (85) |
| | | | | 0.433(9) | | [195Pt] | NMR/ON | 1985Oh05 | HFI 22 585 (85) |
| | | | | 0.42(3) | | [195Pt] | NO/S | 1980Be27 | JP G6 775 (80) |
| | | | | | -0.87(8) st | | LRIMS | 2000SaZQ | IPNO-DR 00-21 |
| | | | | | -0.95(4) | R | LRIMS | 1992Hi07/1989Du01 | ZP A342 1 (92)/PL B217 401 (1989) |
| | | | | | -1.03(5) | | LRIMS | 1989Du01 | PL 217 401 (89) |
| | | | | | -1.21(6) | [191Pt] | QI-NMR/ON | 1998Hi08 | PR C57 2165 (98) |
| | | | | | -1.27(3) | [191Pt] | NMR-ON | 1993HaZU | Cf93Bern 173(93) |
| | | | | | -1.1(2) st | | LRIMS | 1992Hi07 | ZP A342 1 (92) |
| 78 Pt 190 | 296 | 60 ps | 2+ | +0.57(3) | | [194,196Pt 2+] | TF | 1995An15 | NP A593 212 (95) |
| | 1631 | 0.79 ns | 7- | +4.3(6) | | | IPAC | 2006LE06 | NP A764 24 (2006) |
| | 2297 | 48 ns | 10- | -0.02(4) | | | IPAC | 2006LE06 | NP A764 24 (2006) |
| | | | | +0.09(8) | | | IPAC | 2001Ko41 | PAN 64 843 (01) |
| | 2727 | 1.4 ns | 12+ | -2.0(14) | | | IPAC | 2006LE06 | NP A764 24 (2006) |
| 78 Pt 191 | 0 | 2.9 d | 3/2- | -0.501(5) | | [195Pt] | LRIMS | 1989Du01 | PL 217 401 (89) |
| | | | | -0.494(8) | | [195Pt] | LRIMS | 1992Hi07 | ZP A342 1 (92) |
| | | | | 0.500(10) | | [195Pt] | NMR/ON | 1985Ed05 | PL 158B 371 (85) |
| | | | | 0.499(10) | | [195Pt] | NMR/ON | 1985Oh05 | HFI 22 585 (85) |
| | | | | 0.506(11) | | [195Pt] | NMR/ON, NO/S | 1981La25 | JP G7 1713 (81) |
| | | | | -0.46(+14,-4) | | [195Pt] | NO/S, NO/ME | 1980Be27/1987Be36 | JP G6 775 (80)/HFI 35 1023 (87) |
| | | | | | -0.78(10) st | | LRIMS | 2000SaZQ | IPNO-DR 00-21 |
| | | | | | -0.87(4) | R | LRIMS | 1992Hi07/1989Du01 | ZP A342 1 (92)/PL B217 401 (1989) |
| | | | | | -0.98(5) | | LRIMS | 1989Du01 | PL 217 401 (89) |
| | | | | | -0.78(10) st | | LRIMS | 1992Hi07 | ZP A342 1 (92) |
| 78 Pt 192 | 317 | 43.7 ps | 2+ | +0.57(3) | | | TDPAC | 1992Ai21/1992Bo20 | NIMPR A321 506 (92)/ZP A342 249 (92) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|-------|---------------|-----------|----------------|-----------|-----------------------------------|-----------------------------------|
| | | | | +0.64(3) | | [194,196Pt 2+] | TF | 1992Br03 | NP A536 366 (92) |
| | | | | +0.60(2) | | [194,196Pt 2+] | TF | 1995An15 | NP A593 212 (95) |
| | | | | +0.57(4) | | | IPAC | 1975Ka42 | HFI 1 113 (75) |
| | | | | | +0.6(2) | R | CER | 1987Gy01 | NP A470 415 (87) |
| | | | | | +0.62(6) | | CER | 1978SpZW | ARRo 82 (77) |
| | 612 | 26.5 ps | 2+ | +0.56(9) | | [194,196Pt 2+] | TF | 1992Br03 | NP A536 366 (92) |
| | | | | +0.72(14) | | | IPAC | 1975Ka42 | HFI 1 113 (75) |
| | 785 | 4.2 ps | 4+ | +1.12(12) | | [194,196Pt 2+] | TF | 1992Br03 | NP A536 366 (92) |
| | | | | 1.6(11) | | | IPAC | 1969Ke11 | CJP 47 2395 (69) |
| | 1518 | 1.85 ns | 7- | +3.4(8) | | | IPAC | 2006LE06 | NP A764 24 (2006) |
| | 2172 | 280 ns | 10- | -0.012(10) | | | IPAC | 2006LE06 | NP A764 24 (2006) |
| | | | | 0.10(6) | | | IPAC | 2001Ko04 | PAN 64 843 (01) |
| | 2624 | 2.6 ns | 12- | -2.2(11) | | | IPAC | 2006LE06 | NP A764 24 (2006) |
| 78 Pt 193 | 0 | 50 y | 1/2- | +0.603(8) | | [195Pt] | LRIMS | 1992Hi07 | ZP A342 1 (92) |
| | 150 | 4.3 d | 13/2+ | (-0.753(15) | | [195Pt] | NMR/ON(X) | 1986Sc04 | PRL 56 1051 (86) |
| 78 Pt 194 | 328 | 41.8 ps | 2+ | +0.60(3) | | | TF | 1995An15 | NP A593 212 (95) |
| | | | | +0.59(4) | | | TF | 1991St04 | NP A528 447 (91) |
| | | | | +0.406(12) | | | TF | 1982Le02 | PR C25 293 (82) |
| | | | | +0.60(3) | | | IPAC | 1975Ka42 | HFI 1 113 (75) |
| | | | | | +0.48(14) | R | CER | 1986Gy04 | NP A458 165 (86) |
| | | | | | 0.1(2) | | CER | 1983Ch35 | PR C28 1570 (83) |
| | | | | | +0.63(6) | | CER | 1978Ba38 | PR C18 131 (78) |
| | 622 | 35 ps | 2+ | +0.56(11) | | [194,196Pt 2+] | TF | 1992Br03 | NP A536 366 (92) |
| | | | | +0.69(6) | | | IPAC | 1975Ka42 | HFI 1 113 (75) |
| | | | | | -0.5(5) | | CER | 1983Ch35 | PR C28 1570 (83) |
| | 811 | 3.7 ps | 4+ | +1.12(12) | | [194,196Pt 2+] | TF | 1992Br03 | NP A536 366 (92) |
| | | | | | +0.5(10) | | CER | 1983Ch35 | PR C28 1570 (83) |
| | 1485 | 3.45 ns | 7- | +1.8(6) | | | IPAC | 2006LE06 | NP A764 24 (2006) |
| | 2438 | 6.4 ns | [12+] | -2.0(8) | | | IPAC | 2006LE06 | NP A764 24 (2006) |
| 78 Pt 195 | 0 | stable | 1/2- | +0.60952(6) | | [23Na] | N | 1951Pr02 | PR 81 20 (51) |
| | 99 | 0.17 ns | 3/2- | -0.62(6) | | [195Pt] | ME | 1967Ag01 | PR 155 1339 (67) |
| | 130 | 0.62 ns | 5/2- | +0.90(6) | | [195Pt] | ME | 1974Ru03/1972Wo06 | HPAc 46 735 (74)/NP A181 289 (72) |
| | 211 | 49 ps | 3/2- | +0.16(3) | | | CEAD | 1972Va16 | PR C6 388 (72) |
| | 239 | 70 ps | 5/2- | +0.64(9) | | | TF | 1994La02 | NP A568 617 (94) |
| | | | | +0.52(5) | | | IMPAC | 1973Ga31 | ZP A270 163 (74) |
| | 259 | 4.02 d | 13/2+ | 0.606(15) | | [195Pt] | NMR/ON | 1972Ba22 | PRL 28 720 (72) |
| | | | | sign negative | | | NO/CP | 1991Sc28 | ZP A340 235 (91) |
| | | | | | +1.4(6) | R | NO/S | 1985Ed05/1985Ed03 | PL 158B 371 (85)/HFI 22 47 (85) |
| | 389 | 9 ps | 5/2- | +0.39(10) | | | TF | 1994La02 | NP A568 617 (94) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|---------|----------------|--------------------------|-------------------------|---------|--------------------------|-------------------|
| | 455 | >10 ps | 5/2- | +1.6(6) | | | TF | 1994La02 | NP A568 617 (94) |
| | 508 | 9.7 ps | 7/2- | +0.55(8) | | | TF | 1994La02 | NP A568 617 (94) |
| | 544 | >2.8 ps | 5/2- | +1.5(4) | | | TF | 1994La02 | NP A568 617 (94) |
| | 563 | 14 ps | 9/2- | +1.55(12) | | | TF | 1994La02 | NP A568 617 (94) |
| | 613 | 6 ps | 7/2- | +1.4(4) | | | TF | 1994La02 | NP A568 617 (94) |
| | 667 | (16 ps) | 9/2- | +1.52(16) | | | TF | 1994La02 | NP A568 617 (94) |
| | 679 | >2.8 ps | 7/2- | +1.2(3) | | | TF | 1994La02 | NP A568 617 (94) |
| 78 Pt 196 | 356 | 34 ps | 2+ | +0.59(5) | | | TF | 1991St04 | NP A528 447 (91) |
| | | | | +0.60(5) | | [194Pt 328] | TF | 1993Ta07 | PR C48 140 (93) |
| | | | | +0.43(4) | | | TF | 1982Le02 | PR C25 293 (82) |
| | | | | +0.69(3) | | | IPAC | 1981Ka23 | JPJa 50 1832 (81) |
| | | | | +0.63(6) | | [194Pt 328] | TF | 1979Ha06 | NP A314 161 (79) |
| | | | | | +0.62(8) | R | CER | 1992Li14 | NP A548 308 (92) |
| | | | | | +0.66(12) | | CER | 1986Gy04 | NP A458 165 (86) |
| | 689 | 36.8 ps | 2+ | +0.54(9) | | | R | 1992Br03 | NP A536 366 (92) |
| | | | | +0.75(15) | | [196Pt 356] | TF | 1981St24 | PR C24 2106 (81) |
| | | | | | -0.39(16) | R | CER | 1992Li14 | NP A548 308 (92) |
| | 877 | 3.6 ps | 4+ | +1.38(16) | | [194Pt328, 196Pt356] | TF | 1992Br03 | NP A536 366 (92) |
| | | | | +1.5(3) | | [196Pt 356] | TF | 1981St24 | PR C24 2106 (81) |
| | | | | | +1.03(12) | R | CER | 1992Li14 | NP A548 308 (92) |
| | 1526 | 0.98 ps | 6+ | | -0.2(3) | R | CER | 1992Li14 | NP A548 308 (92) |
| 78 Pt 197 | 0 | 18.3 h | 1/2- | 0.51(2) | | | AB | 1976Fu06 | JPCR 5 835 (76) |
| | 53 | 16.6 ns | 5/2- | +0.85(3) | | | TDPAC | 1982So05 | PR C25 1587 (82) |
| 78 Pt 198 | 407 | 22.3 ps | 2+ | +0.63(2) | | [194Pt328, 196Pt356] | TF | 1995An15 | NP A593 212 (95) |
| | | | | +0.70(6) | | [194Pt 328] | TF | 1993Ta07 | PR C48 140 (93) |
| | | | | +0.59(7) | | | TF | 1991St04 | NP A528 447 (91) |
| | | | | +0.69(6) | | [196Pt 356] | TF | 1981St13 | NP A365 317 (81) |
| | | | | +0.62(10) | | [194Pt 328] | TF | 1979Ha06 | NP A314 161 (79) |
| | | | | | +0.42(12)** or +0.54(12) | **R | CER | 1986Gy04 | NP A458 165 (86) |
| | 775 | 27 ps | 2+ | +0.61(11) | | | R | 1992Br03 | NP A536 366 (92) |
| | | | | +0.72(13) | | [196Pt 356] | TF | 1981St13 | NP A365 317 (81) |
| | 985 | 3.3 ps | 4+ | +1.2(2) | | | R | 1992Br03 | NP A536 366 (92) |
| | | | | +1.4(3) | | [196Pt 356] | TF | 1981St13 | NP A365 317 (81) |
| 79 Au 182 | 0 | 21 s | unknown | 1.30(10) [I=2] | | | TR/OLNO | 1992Ro21 | HFI 75 457 (92) |
| | | | | 1.62(15) [I=3] | | | TR/OLNO | 1992Ro21 | HFI 75 457 (92) |
| | | | | 1.9(2) [I=4] | | | TR/OLNO | 1992Ro21 | HFI 75 457 (92) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|----------|--------|-------------|-------------|-----------|-------------|--------------|-----------------------------------|-----------------------------------|
| 79 Au 183 | 0 | 42 s | 5/2- | +1.97(2) | | | LRIMS | 1988Kr18 | ZP A331 521 (88) |
| 79 Au 184 | 0 | 21 s | 5 | +2.07(2) | | | LRIS | 1997Le22 | PRL 79 2213 (97) |
| | | 49 s | 2 | +1.44(2) | +4.7(3) | R | LRIS | 1997Le22 | PRL 79 2213 (97) |
| | | | | | +1.90(16) | R | LRIS | 1997Le22 | PRL 79 2213 (97) |
| 79 Au 185 | 0 | 4.2 m | 5/2- | +2.17(2) | | | LRIMS | 1989Wa11/1987Wa06 | NP A493 224 (89)/PRL 58 1516 (87) |
| | | | | +1.98(2) | | | LRIMS | 1992Ki30 | NIMPR B70 537 (92) |
| | | | | 2.22(14) | | | NO/S | 1985Va07 | HFI 22 507 (85) |
| | | | | | -1.10(10) | R | LRIMS | 1992Ki30 | NIMPR B70 537 (92) |
| 79 Au 186 | 0 | 10.7 m | 3- | -1.28(3) | | | LRIMS | 1990Sa21 | NP A512 241 (90) |
| | | | | 1.28(2) | | | NMR/ON | 1988Sc19 | HFI 43 141 (88) |
| | | | | -1.26(3) | | | LRIMS | 1989Wa11/1987Wa06 | NP A493 224 (89)/PRL 58 1516 (87) |
| | | | | 1.07(13) | | | NO/S | 1985Va07 | HFI 22 507 (85) |
| | | | | | +3.10(6) | R | LRIMS | 1992Ki30 | NIMPR B70 537 (92) |
| | | | | | +3.14(16) | 193Au | NMR-ON | 1993Hi10 | NP A562 205 (93) |
| 79 Au 187 | 0 | 8.4 m | 1/2+ | +0.535(15) | | | LRIMS | 1989Wa11/1987Wa06 | NP A493 224 (89)/PRL 58 1516 (87) |
| | | | | +0.531(12) | | | LRIMS | 1990Sa21 | NP A512 241 (90) |
| | | | | 0.72(7) | | | AB | 1980Ek04 | NP A348 25 (80) |
| | 2670(+D) | 102 ns | 31/2-,35/2- | g = 0.25(3) | | | TDPAD | 1997Pe26 | ZP A359 (97) |
| 79 Au 188 | 0 | 8.8 m | 1- | -0.07(3) | | | LRIMS | 1989Wa11/1987Wa06 | NP A493 224 (89)/PRL 58 1516 (87) |
| | | | | 0.07(2) | | | AB | 1980Ek04 | NP A348 25 (80) |
| 79 Au 189 | 0 | 28.7 m | 1/2+ | +0.494(14) | | | LRIMS | 1989Wa11/1987Wa06 | NP A493 224 (89)/PRL 58 1516 (87) |
| | 247 | 4.6 m | 11/2- | +6.19(2) | | | LRIMS | 1989Wa11/1987Wa06 | NP A493 224 (89)/PRL 58 1516 (87) |
| | | | | 6.17(15) | | [195Au 319] | NO/S, NMR/ON | 1986Va35 | PR B34 2014 (86) |
| | 2553 | 242 ns | 31/2+ | 6.5(3) | | | TDPAD | 1997Pe26 | ZP A359 (97) |
| 79 Au 190 | 0 | 42.8 m | 1- | -0.065(7) | | | LRIMS | 1990Sa21 | NP A512 241 (90) |
| | | | | -0.07(3) | | | LRIMS | 1989Wa11 | NP A493 224 (89) |
| | | | | -0.07(2) | | | AB, R, CLS | 1980Ek04/1985St10 | NP A348 25 (80)/ZP A321 537 (85) |
| 79 Au 191 | 0 | 3.18 h | 3/2+ | +0.1369(9) | | | LRIMS | 1994Pa37 | NP A580 173 (94) |
| | | | | +0.137(1) | | | AB, R | 1980Ek04 | NP A348 25 (80) |
| | | | | | +0.72(2) | R | LRIMS | 1994Pa37 | NP A580 173 (94) |
| | 266 | 0.9 s | 11/2- | 6.6(6) | | | NO/S | 1985Va07 | HFI 22 507 (85) |
| | 2446 | 890 ps | 27/2- | <<20 | | | IPAD | 1985Ko13 | NP A439 189 (85) |
| | 2489 | 400 ns | 31/2+ | 6.5(6) | | | TDPAD | 1997Pe26 | ZP A359 (97) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|--------------------------|------------------|-----------|--------------|------------|-------------|-----------------------------------|-----------------------------------|---------------------------------------|---------------------|
| 79 Au 192 | 0 | 5.0 h | 1- | -0.0107(15) | -0.228(8) | R | LRIMS | 1994Pa37 | NP A580 173 (94) | |
| | | | | -0.008(2) | | | LRIMS | 1990Sa21 | NP A512 241 (90) | |
| | | | | 0.01(2) | | | AB, R | 1980Ek04 | NP A348 25 (80) | |
| | | | | | | | LRIMS | 1994Pa37 | NP A580 173 (94) | |
| 79 Au 193 | 0 | 17.65 h | 3/2+ | 0.1396(6) | +0.66(2) | R | NMR/ON | 1993Hi10 | NP A562 205 (93) | |
| | | | | +0.1396(5) | | | LRIMS | 1994Pa37 | NP A580 173 (94) | |
| | | | | +0.140(1) | | | AB, R | 1980Ek04 | NP A348 25 (80) | |
| | 290 | 3.9 s | 11/2- | 6.18(9) | 6.17(9) | +1.98(6) | R | LRIMS | 1994Pa37 | NP A580 173 (94) |
| | | | | | | | | NMR/ON | 1983Ha10 | NP A399 83 (83) |
| | | | | | | | | NMR/ON | 1983Li21 | HFI 14 125 (83) |
| | | | | | | | | MAPON | 1996Se06 | NP A602 41 (96) |
| | | | | | | | | TDPAD, R | | Cf80Ber A 18-I (80) |
| | | | | | | | | IPAD | 1985Ko13 | NP A439 189 (85) |
| | | | | | | | | IPAD | 1985Ko13 | NP A439 189 (85) |
| IPAD | 1985Ko13 | NP A439 189 (85) | | | | | | | | |
| 1947 | 12 ns | 21/2+ | +6.48(11) | | | | | | | |
| 2378 | 790 ps | 27/2- | <9.45 | | | | | | | |
| 2477 | 3.5 ns | 31/2- | 5(3) | | | | | | | |
| 2701 | 1.8 ns | 35/2- | 2(2) | | | | | | | |
| 79 Au 194 | 0 | 39.5 h | 1- | +0.0763(13) | -0.240(9) | R | LRIMS | 1994Pa37 | NP A580 173 (94) | |
| | | | | +0.079(3) | | | LRIMS | 1990Sa21 | NP A512 241 (90) | |
| | | | | 0.08(2) | | | AB, R | 1980Ek04 | NP A348 25 (80) | |
| | | | | | | | LRIMS | 1994Pa37 | NP A580 173 (94) | |
| 79 Au 195 | 0 | 183 d | 3/2+ | 0.1487(6) | +0.607(18) | R | NMR/ON | 1993Hi10 | NP A562 205 (93) | |
| | | | | +0.145(5) | | | LRIMS | 1990Sa21 | NP A512 241 (90) | |
| | | | | +0.149(1) | | | AB, R | 1980Ek04 | NP A348 25 (80) | |
| | 319 | 30.6 s | 11/2- | 6.18(9) | 6.17(9) | +1.87(6) | R | NMR-ON | 1993Hi10 | NP A562 205 (93) |
| | | | | | | | | NMR/ON | 1981Ha27 | PR C24 631 (81) |
| | | | | | | | | NMR/ON | 1983Li21 | HFI 14 125 (83) |
| | | | | | | | | MAPON | 1996Se06 | NP A602 41 (96) |
| | | | +1.41(10) | | [197Au] | NO/S, ME | 1983Be68/1983Pe22 | HFI 15 233 (83)/HFI 15 227 (83) | | |
| 79 Au 196 | 0 | 6.18 d | 2- | +0.580(15) | 0.81(7) | R | LRIMS | 1990Sa21 | NP A512 241 (90) | |
| | | | | +0.5914(14) | | | AB/D | 1970Sc02 | PR C2 225 (70) | |
| | | | | 0.5906(5) | | | NMR/ON | 1987Oh11 | PR C36 2072 (87) | |
| | | | | | | | NMR/ON, N | 1987Oh11/1984Ri15 | PR C36 2072 (87)/PR B30 5680 (84) | |
| | | | | 596 | | | 9.7 h | 12- | 5.72(8) | |
| 79 Au 197 | 0 | stable | 3/2+ | +0.145746(9) | +0.59(3) | R | AB/D | 1967Da04 | ZP A200 456 (67) | |
| | | | | +0.148158(8) | | | N | 1967Na13/1968Na01 | PR 163 232 (67)/PR 175 696 (68) | |
| | | | | | | | R | 2006IT01 | PR A73 022510 (2006) | |
| | | | | | | | Mu-X, O | 1974Po12 | NP A230 413 (74)/APLz s6v 13 158 (53) | |
| | | | | | | | AB | 1967Bl16/1966Ch03 | PR 161 60 (67)/PR 141 176 (66) | |
| 77 | 1.91 ns | 1/2+ | +0.420(3) | | [197Au] | ME | 1968Co17 | PR 171 343 (68) | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|--------|---------------|------------|-------------|---------------------------|-----------------------------------|-----------------------------------|
| | 279 | 20.4 ps | 5/2+ | +0.53(5) | | | TF | 1986Ba19 | PR C33 1785 (86) |
| | | | | +0.74(6) | | | TF | 1988St09 | ZP A330 131 (88) |
| | 409 | 7.8 s | 11/2- | (+) $5.98(9)$ | | | NMR/ON | 1984Ha12 | NP A417 88 (84) |
| | | | | 6.4(4) | | | NO/S | 1983Li21 | HFI 14 125 (83) |
| | | | | | +1.68(5) | R | MAPON | 1996Se06 | NP A602 41 (96) |
| | | | | | +1.4(2) | [197Au] | NO/S, ME | 1983Be68/1983Pe22 | HFI 15 233 (83)/HFI 15 227 (83) |
| | 503 | 1.8 ps | 5/2+ | +3.0(5) | | | TF | 1988St09 | ZP A330 131 (88) |
| | 548 | 4.6 ps | 7/2+ | +0.53(7) | | | TF | 1988St16 | NP A486 374 (88) |
| | | | | +0.84(7) | | | TF | 1988St09 | ZP A330 131 (88) |
| | 737 | 1.1 ps | 7/2+ | +1.7(5) | | | TF | 1988St16 | NP A486 374 (88) |
| | 855 | 2.7 ps | 9/2+ | +1.5(5) | | | TF | 1988St16 | NP A486 374 (88) |
| | 1231 | 0.93 ps | 11/2+ | +2.0(10) | | | TF | 1988St16 | NP A486 374 (88) |
| 79 Au 198 | 0 | 2.696 d | 2- | +0.64(2) | | | LRIMS | 1990Sa21 | NP A512 241 (90) |
| | | | | +0.5934(4) | | | AB/D | 1967Va16 | PR 158 1078 (67) |
| | | | | | +0.640(19) | R | [193Au] NMR-ON | 1993Hi10 | NP A562 205 (93) |
| | | | | | +0.68(2) | [197Au] | NMR-ON | 1988Ed01 | PRL 61 1301 (88) |
| | | | | | 0.88(8) | [197Au] | N | 1985Ka16 | JP F15 1613 (85) |
| | | | | | 0.76(4) | [197Au] | N, NMR/ON | 1984Ha03 | PR B30 5680 (84)/PR B29 1148 (84) |
| | | | | | +0.69(4) | [199Au] | NO/S, NMR/ON | 1983He26/1984Ha03 | ZP A314 215 (83)/PR B29 1148 (84) |
| | | | | | +0.46(2) | [197Au] | ME, NO/S | 1983Pe22/1983He26 | HFI 15 227 (83)/ZP A314 215 (83) |
| | 312 | 123 ns | 5+ | -1.11(2) | | | TDPAD, R | | Cf80Ber A11-I |
| | 812 | 2.30 d | 12- | (+) $5.85(9)$ | | | NMR/ON | 1984Ha12 | NP A417 88 (84) |
| 79 Au 199 | 0 | 3.14 d | 3/2+ | +0.261(2) | | | LRIMS | 1990Sa21 | NP A512 241 (90) |
| | | | | +0.2715(7) | | | AB/D | 1967Va16 | PR 158 1078 (67) |
| | | | | | +0.510(16) | R | [193Au] NMR/ON | 1993Hi10 | NP A562 205 (93) |
| | | | | | 0.64(6) | [197Au] | N, NMR/ON | 1985Ka16/1982Ha39 | JP F15 1613 (85)/ZP A307 159 (82) |
| | | | | | 0.55(3) | [197Au] | N, NMR/ON | 1982Ha39 | PR B30 5680 (84)/ZP A307 159 (82) |
| | | | | | +0.37(1) | [197Au] | ME, NO/S | 1983Pe22/1983He26 | HFI 15 227 (83)/ZP A314 215 (83) |
| 79 Au 200 | 962 | 18.7 h | 12- | 5.90(9) | | | NMR/ON | 1984Ha45 | PR C30 1675 (84) |
| 80 Hg 181 | 0 | 3.6 s | 1/2(-) | +0.5071(7) | | | NMR/OP(β) | 1976Bo09 | ZP A276 203 (76) |
| 80 Hg 183 | 0 | 8.8 s | 1/2- | +0.524(5) | | | NMR/OP(β) | 1976Bo09 | ZP A276 203 (76) |
| 80 Hg 185 | 0 | 55 s | 1/2- | +0.509(4) | | | NMR/OP(β) | 1986UI02 | ZP A325 247 (86) |
| | 99.3 | 27 s | 13/2+ | -1.017(9) | | [193Hg 141] | CLS | 1986UI02 | ZP A325 247 (86) |
| | | | | | +0.2(3) st | R | [201Hg] NMR/OP(β) | 1986UI02 | ZP A325 247 (86) |
| 80 Hg 187 | 0 | 2.4 m | 13/2+ | -1.044(11) | | [193Hg 141] | CLS | 1979Da06 | PL 82B 199 (79) |
| | | | | | +0.5(3) st | R | [201Hg] NMR/OP(β) | 1986UI02 | ZP A325 247 (86) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|----------|----------|--------|---------------------|--------------|---|-------------|-------------------|--------------------------|---------------------------------|
| | 134 | 1.9 m | 3/2- | -0.594(4) | | | | NMR/OP(β) | 1986UI02 | ZP A325 247 (86) |
| | | | | | -0.75(18) | R | [201Hg] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.8(3) st | | [201Hg] | NMR/OP(β) | 1986UI02 | ZP A325 247 (86) |
| 80 Hg 188 | 2724 | 135 ns | 12+ | -2.02(12) | | | | TDPAD | 1983Se20 | ZP A313 289 (83) |
| | | | | | 0.91(11) | R | | TDPAD | 1984Dr09 | PL 149B 311 (84) |
| 80 Hg 189 | 0 | 7.6 m | 3/2- | -0.6086(8) | | | | NMR/OP(β) | 1986UI02 | ZP A325 247 (86) |
| | | | | | -0.8(3) | R | [201Hg] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.8(4) | | [201Hg] | NMR/OP(β) | 1986UI02 | ZP A325 247 (86) |
| | 0 + x | 8.6 m | 13/2+ | -1.058(6) | | | [193Hg 141] | CLS | 1979Da06 | PL 82B 199 (79) |
| | | | | | +0.66(19) | R | [201Hg] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.7(3) st | | [201Hg] | NMR/OP(β) | 1986UI02 | ZP A325 247 (86) |
| 80 Hg 190 | 2621 | 21 ns | 12+ | -2.5(2) | | | | TDPAD | 1980Hi01 | PRL 45 878 (80) |
| | | | | | 1.17(14) | R | [199Hg 158] | TDPAD | 1984Dr09 | PL 149B 311 (84) |
| 80 Hg 191 | 0 | 49 m | 3/2- | -0.618(11) | | | [201Hg] | NMR/OP(β) | 1986UI02 | ZP A325 247 (86) |
| | | | | | -0.80(13) | R | [201Hg] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.8(3) st | | [201Hg] | NMR/OP(β) | 1986UI02 | ZP A325 247 (86) |
| | 140 | 50.8 m | 13/2+ | -1.068(5) | | | [193Hg 141] | CLS | 1979Da06 | PL 82B 199 (79) |
| | | | | | +0.6(2) | R | [201Hg] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.6(3) st | | [201Hg] | NMR/OP(β) | 1986UI02 | ZP A325 247 (86) |
| 80 Hg 193 | 0 | 3.80 h | 3/2- | -0.6276(2) | | | [199Hg] | NMR/OP | 1971Mo24 | PR C4 620 (71) |
| | | | | | -0.7(3) | R | [201Hg] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -0.7(4) st | | [201Hg] | NMR/OP(β) | 1986UI02 | ZP A325 247 (86) |
| | 141 | 11.8 h | 13/2+ | -1.058430(3) | | | [199Hg] | NMR/OP | 1973Re04 | PR C7 2065 (73) |
| | | | | | +0.92(2) | R | [201Hg] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.92(10) st | | [201Hg] | NMR/OP(β) | 1986UI02 | ZP A325 247 (86) |
| | band | ABC | | g(avge) = 0.188(14) | | | | TF | 1998WE23 | NuoC 111 A 675 (98) |
| | band | ABCDF + | ABF | g(avge) = 0.20(2) | | | | TF | 1998WE23 | NuoC 111 A 675 (98) |
| | band | ABCDE + | ABE | g(avge) = 0.175(14) | | | | TF | 1998WE23 | NuoC 111 A 675 (98) |
| 80 Hg 194 | 2424 | 2.9 ns | 10+ | g(avge) = -0.24(4) | | | | IPAD | 1980Kr21 | PL 97B 197 (80) |
| | and 2476 | 8.1 ns | 12+ | g(avge) = -0.24(4) | | | | IPAD | 1980Kr21 | PL 97B 197 (80) |
| | yrast | superdef | band 1 | g(avge) = 0.36(10) | | | | TF | 1998Ma71 | PR C58 R2640 (98) |
| | yrast | superdef | band 2 | g(avge) = 0.4(2) | | | | TF | 1998Ma71 | PR C58 R2640 (98) |
| | yrast | superdef | band 3 | g(avge) = 0.7(3) | | | | TF | 1998Ma71 | PR C58 R2640 (98) |
| | band | ABCD + | AB | g(avge) = 0.25(2) | | | | TF | 1998WE23 | NuoC 111 A 675 (98) |
| | band | ABCE + | AE | g(avge) = 0.26(3) | | | | TF | 1998WE23 | NuoC 111 A 675 (98) |
| | band | ABCF + | AF | g(avge) = 0.27(2) | | | | TF | 1998WE23 | NuoC 111 A 675 (98) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|--------|---------|-----------|-----------------|------------------------|-------------|-------------------|--------------------------|-----------------------------------|----------------------------------|
| 80 Hg 195 | 0 | 9.9 h | 1/2- | +0.5414749(14) | | | [199Hg] | NMR/OP | 1973Re04 | PR C7 2065 (73) |
| | 176 | 41.6 h | 13/2+ | -1.044647(3) | | | [199Hg] | NMR/OP | 1973Re04 | PR C7 2065 (73) |
| | | | | | +1.08(2) | R | [201Hg] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +1.08(11) st | | [201Hg] | NMR/OP(β) | 1986UI02 | ZP A325 247 (86) |
| 80 Hg 196 | 1841 | 5.2 ns | 7- | -0.21(12) | | | | IPAD | 2006LE06 | NP A764 24 (2006) |
| | | | | -0.29(13) | | | | TDPAD, IPAD | 1984Go06 | YadF 39 518 (84) |
| | 2342 | 5.1 ns | 10+ | -1.9(6) | | | | IPAD | 2006LE06 | NP A764 24 (2006) |
| | | | | -1.8(9) | | | | IPAD | 1980Kr21 | PL 97B 197 (80) |
| | 2439 | 3.5 ns | 12+ | -2.3(7) | | | | IPAD | 2006LE06 | NP A764 24 (2006) |
| | | | | -2.2(11) | | | | IPAD | 1980Kr21 | PL 97B 197 (80) |
| 80 Hg 197 | 0 | 64.1 h | 1/2- | +0.5273744(9) d | | | [199Hg] | NMR/OP | 1973Re04 | PR C7 2065 (73) |
| | 134 | 8.1 ns | 5/2- | +0.855(15) | | | [199Hg 158] | TDPAC | 1977Kr11 | ZP A283 337 (77) |
| | | | | | -0.081(6) | R | [199Hg 158] | TDPAC | 1980He05/1981Kr16 | NP A337 261 (80)/HFI 9 105 (81) |
| | | | | | 0.080(10) | | [197Hg 299] | TDPAD, R | 1980He05 | NP A337 261 (80) |
| | 299 | 23.8 h | 13/2+ | -1.027684(3) d | | | [199Hg] | NMR/OP | 1973Re04 | PR C7 2065 (73) |
| | | | | | R | [201Hg] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) | |
| | | | | | | [201Hg] | NMR/OP(β) | 1986UI02 | ZP A325 247 (86) | |
| 80 Hg 198 | 412 | 23 ps | 2+ | +0.76(6) | | | [199Hg 158] | TF | 1995Br34 | ZP A353 141 (95) |
| | | | | +1.0(2) | | | [199Hg 158] | IMPAC, R | 1986Ko02 | NP A448 123 (86) |
| | | | | 0.70(14) | | | | RIGV, R | 1977Kr11 | ZP A283 337 (77) |
| | | | | | +0.68(12) or +0.84(12) | R | | CER, R | 1984Fe08 | NP A425 373 (84) |
| | | | | | +0.7(2) or +0.8(2) | | | CER | 1979Bo16 | ZP A291 245 (79) |
| | | | | | +0.5(2) a | | | Mu-X | 1979Ha08 | NP A314 361 (79) |
| | 1048 | 1.8 ps | 4+ | +1.6(2) | | | [199Hg 158] | TF | 1995Br34 | ZP A353 141 (95) |
| | 1684 | 7.1 ns | 7- | -0.23(10) | | | | IPAD | 2006LE06 | NP A764 24 (2006) |
| | | | | -0.22(11) | | | | TDPAD, IPAD | 1984Go06 | YadF 39 518 (84)/PC Levon (86) |
| | 2434 | 1.9 ns | 10+ | -1.8(8) | | | | IPAD | 2006LE06 | NP A764 24 (2006) |
| 2578 | 1.4 ns | 12+ | -2.2(10) | | | | IPAD | 2006LE06 | NP A764 24 (2006) | |
| 80 Hg 199 | 0 | stable | 1/2- | +0.5058855(9) | | | [1H] | NMR/OP | 1961Ca21 | AnP 6 467 (61) |
| | 158 | 2.45 ns | 5/2- | +0.88(3) | | | | TDPAC | 1977Kr11 | ZP A283 337 (77) |
| | | | | +0.91(9) | | | | IPAC | 1977Kr11 | ZP A283 337 (77) |
| | | | | +0.60(15) | | | [198Hg 412] | TF | 1986Ko02 | NP A448 123 (86) |
| | | | | | +0.8(4) | | | ME, R | 1985La21/1979Wu12 | HFI 23 259 (85)/ZP A293 219 (79) |
| | | | | | +0.85(12) a | | | Mu-X | 1983Gu02 | PR C27 816 (83) |
| | | | | | +0.95(7) a | R | | Mu-X | 1979Ha08 | NP A314 361 (79) |
| | | | | | 0.70(9) st | | [201Hg] | TDPAC, Q | 1973Ha61 | JCP 58 3339 (73) |
| 208 | 69 ps | 3/2- | -0.56(9) | | | [199Hg 158] | TF | 1990Ba40 | HFI 59 129 (90) | |
| | | | -0.29(15) | | | [198Hg 412] | TF | 1986Ko02 | NP A448 123 (86) | |
| | | | -0.47(8) | | | | IMPAC | 1986Ko02 | NP A448 123 (86) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|-------|----------------|------------------------|-------------|-------------------|-----------------------------------|--|
| | | | | | +0.50(12) a | | Mu-X | 1983Gu02 | PR C27 816 (83) |
| | | | | | +0.62(15) a | R | Mu-X | 1979Ha08 | NP A314 361 (79) |
| | 414 | 97 ps | 5/2- | +0.80(9) | | [199Hg 158] | TF | 1990Ba40 | HFI 59 129 (90) |
| | | | | -0.7(3) | | [198Hg 412] | TF | 1986Ko02 | NP A448 123 (86) |
| | 532 | 42.6 m | 13/2+ | -1.014703(3) | | [199Hg] | NMR/OP(β) | 1973Re04 | PR C7 2065 (73) |
| | | | | | +1.2(3) st | R | [201Hg] | NMR/OP(β) | 1986UI02 |
| 80 Hg 200 | 368 | 46.6 ps | 2+ | +0.65(5) | | [199Hg 158] | TF | 1995Br34 | ZP A353 141 (95) |
| | | | | +0.6(2) | | [198Hg] | IMPAC, R | 1986Ko02 | NP A448 123 (86) |
| | | | | +0.58(12) | | [198Hg 412] | TF | 1986Ko02 | NP A448 123 (86) |
| | | | | +0.52(10) | | | IMPAC | 1986Ko02 | NP A448 123 (86) |
| | | | | 0.80(14) | | | RIGV, R | 1977Kr11 | ZP A283 337 (77) |
| | | | | | +1.0(2) or +1.1(2) | | CER | 1980Sp05 | NP A345 252 (80) |
| | | | | | +0.96(11) or +1.11(11) | R | CER | 1979Bo16 | ZP A291 245 (79) |
| | | | | | +2.6(14) a | | Mu-X | 1979Ha08 | NP A314 361 (79) |
| | | | | | +0.1(6) a | | Mu-X | 1983Gu02 | PR C27 816 (83) |
| | 947 | 3.2 ps | 4+ | 1.02(17) | | [199Hg 158] | TF | 1995Br34 | ZP A353 141 (95) |
| 80 Hg 201 | 0 | stable | 3/2- | -0.5602257(14) | | [199Hg] | NMR/OP | 1973Re04 | PR C7 2065 (73) |
| | | | | -0.560226(3) | | [1H] | NMR/OP | 1961Ca21 | AnP 6 467 (61) |
| | | | | | +0.35(4) | | calc Q | 2001Fo08 | PRL 87 212501 (01) |
| | | | | | | 206Hg 2102 | | | |
| | | | | | +0.387(6) | R | R | 2005BI03/1979Da06 | PR A71 012502 (2005)/PL B82 199 (1979) |
| | | | | | +0.38(4) st | | AB, R | 1986UI02 | ZP A325 247 (86) |
| | | | | | 0.39(5) or 0.27(4) a | | Mu-X | 1979Ha08 | NP A314 361 (79) |
| | | | | | 0.41(4) | | O | 1965Mu15 | JPJa 14 1624 (59)/JPJa 20 1094 (65) |
| | | | | | 0.46(4) | | AB | 1960Mc11 | PR 119 134 (60) |
| | | | | | +0.53(4) | [199Hg 158] | TDPAC, Q | 1975Ed01 | PR B11 985 (75) |
| | 32 | ~0.1 ns | 3/2- | | 0.3(15) or 0.1(3) a | | Mu-X | 1979Ha08 | NP A314 361 (79) |
| 80 Hg 202 | 440 | 27.3 ps | 2+ | +0.78(6) | | [199Hg 158] | TF | 1995Br34 | ZP A353 141 (95) |
| | | | | +0.9(2) | | [198Hg 412] | TF | 1986Ko02 | NP A448 123 (86) |
| | | | | +1.0(3) | | [198Hg 412] | IMPAC, R | 1986Ko02 | NP A448 123 (86) |
| | | | | 1.0(2) | | | RIGV, R | 1977Kr11 | ZP A283 337 (77) |
| | | | | | +0.87(13) or +1.01(13) | R | CER | 1980Sp05 | NP A345 252 (80) |
| | | | | | +0.17(14) or +0.32(14) | | CER | 1979Bo16 | ZP A291 245 (79) |
| | 1120 | 2.0 ps | 4+ | 1.4(3) | | [199Hg 158] | TF | 1995Br34 | ZP A353 141 (95) |
| 80 Hg 203 | 0 | 46.8 d | 5/2- | +0.84895(13) | | [201Hg] | NMR/OP(β) | 1970Ki05/1964Re03 | PL 31B 567 (70)/PL 8 257 (64) |
| | | | | | +0.344(7) | R | [201Hg] | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.34(4) st | | [201Hg] | 1986UI02 | ZP A325 247 (86) |
| 80 Hg 204 | 437 | 40.2 ps | 2+ | +0.9(2) | | [198Hg 412] | TF | 1986Ko02 | NP A448 123 (86) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-------|--------------|--------|--------------|--------------------|-------------|-------------------|--------------------------|---------------------------------|
| | | | | +0.8(2) | | [198Hg 412] | IMPAC, R | 1986Ko02 | NP A448 123 (86) |
| | | | | | +0.4(2) | R | CER | 1981Es03 | NP A362 227 (81) |
| | | | | | +0.2(2) or +0.4(2) | | CER | 1979Bo16 | ZP A291 245 (79) |
| | | | | | +0(2) a | | Mu-X | 1979Ha08 | NP A314 361 (79) |
| 80 Hg 205 | 0 | 5.2 m | 1/2- | +0.60089(10) | | [199Hg] | NMR/OP(β) | 1975Ro10 | ZP A272 369 (75) |
| 80 Hg 206 | 2102 | 2.15 μ s | 5- | +5.45(5) | | | TDPAD | 1982Be38 | PR C26 914 (82) |
| | | | | | 0.74(15) | R | [199Hg 158] | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.65(13) | R | [199Hg 158] | 1984Ma43 | PR C30 1702 (84) |
| 81 Tl 183 | 0 | 6.9 s | (1/2+) | 1.62(4) | | [205Tl] | ISLS | 2013Ba41 | PR C88 024315 (2013) |
| 81 Tl 184 | 0+y | - | (2-) | 0.3(1) | | [205Tl] | ISLS | 2013Ba41 | PR C88 024315 (2013) |
| 81 Tl 185 | 0 | 19.5 s | (1/2+) | 1.61(4) | | [205Tl] | ISLS | 2013Ba41 | PR C88 024315 (2013) |
| | 455 | 1.93 s | (9/2-) | 3.8(2) | | [205Tl] | ISLS | 2013Ba41 | PR C88 024315 (2013) |
| 81 Tl 186 | 374 | 2.9 s | -10 | 2.57(6) | | [205Tl] | ISLS | 2013Ba41 | PR C88 024315 (2013) |
| 81 Tl 187 | 0 | 51 s | (1/2+) | 1.55(6) | | [205Tl] | CFBLS | 1993ScZW | IoPconf132 221 (93) |
| | 335 | 15.6 s | (9/2-) | +3.71(2) | | [205Tl] | RIS | 2012Ba32 | PR C86 014311 (12) |
| | | | | (+) 3.79(2) | | [205Tl] | CFBLS | 1993ScZW | IoPconf132 221 (93) |
| | | | | | -2.43(5) | R | CFBLS | 1993ScZW | IoPconf132 221 (93) |
| 81 Tl 188 | 0 + x | 71 s | 7+ | +0.483(8) | | est efg | CFBLS | 1992Me07 | ZP A341 475 (92) |
| | | | | | +0.129(4) | R | est efg | 1992Me07 | ZP A341 475 (92) |
| 81 Tl 189 | 281 | 1.4 m | 9/2- | +3.76(2) | | [205Tl] | RIS | 2012Ba32 | PR C86 014311 (12) |
| | | | | +3.878(6) | | [203,205] | CFBLS | 1987Bo44 | PR C36 2560 (87) |
| | | | | | -2.29(4) | R | est efg | 1987Bo44 | PR C36 2560 (87) |
| 81 Tl 190 | 0 + x | 2.6 m | 2- | +0.254(2) | | [203,205Tl] | CFBLS | 1992Me07 | ZP A341 475 (92) |
| | | | | | -0.329(9) | R | est efg | 1992Me07 | ZP A341 475 (92) |
| | 0 + y | 3.7 m | 7+ | +0.487(8) | | [203,205Tl] | CFBLS | 1992Me07 | ZP A341 475 (92) |
| | | | | +0.495(4) | | [203,205Tl] | CFBLS | 1987Bo44 | PR C36 2560 (87) |
| | | | | | +0.285(14) | R | est efg | 1992Me07 | ZP A341 475 (92) |
| 81 Tl 191 | 0 | 2.2 m | 1/2+ | +1.588(4) | | [203,205Tl] | CFBLS | 1992Me07 | ZP A341 475 (92) |
| | 299 | 5.2 m | 9/2- | +3.78(2) | | [205Tl] | RIS | 2012Ba32 | PR C86 014311 (12) |
| | | | | +3.880(7) | | [203,205Tl] | CFBLS | 1992Me07 | ZP A341 475 (92) |
| | | | | +3.903(5) | | [203,205Tl] | CFBLS | 1987Bo44 | PR C36 2560 (87) |
| | | | | | -2.23(2) | R | est efg | 1992Me07 | ZP A341 475 (92) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|---------|--------|------|------------|------------|---|-------------|---------|-----------------------------------|-------------------------------|
| | | | | | -2.28(3) | | est efg | CFBLS | 1987Bo44 | PR C36 2560 (87) |
| 81 Tl 192 | 0 + x | 9.6 m | 2- | +0.200(3) | | | [203,205Tl] | CFBLS | 1992Me07 | ZP A341 475 (92) |
| | | | | | -0.328(11) | R | est efg | CFBLS | 1992Me07 | |
| | 0 + y | 10.8 m | 7+ | +0.502(8) | | | [203,205Tl] | CFBLS | 1992Me07 | ZP A341 475 (92) |
| | | | | +0.518(4) | | | [203,205Tl] | CFBLS | 1987Bo44 | PR C36 2560 (87) |
| | | | | | +0.46(2) | R | est efg | CFBLS | 1992Me07 | |
| | 251 + x | 296 ns | 8- | +1.66(4) | | | [19F 197] | TDPAD | 1982Da17 | NP A383 421 (82) |
| | | | | | 0.44(7) | R | est efg | TDPAD | 1982Sc27 | ZP B49 23 (82) |
| 81 Tl 193 | 0 | 21.6 m | 1/2+ | +1.591(2) | | | [203,205Tl] | CFBLS | 1987Bo44 | PR C36 2560 (87) |
| | 365 | 2.11m | 9/2- | +3.82(3) | | | [205Tl] | RIS | 2012Ba32 | PR C86 014311 (12) |
| | | | | +3.948(4) | | | [203,205Tl] | CFBLS | 1987Bo44 | PR C36 2560 (87) |
| | | | | | -2.20(2) | R | est efg | CFBLS | 1987Bo44 | PR C36 2560 (87) |
| 81 Tl 194 | 0 | 34 m | 2- | +0.140(3) | | | [203,205Tl] | CFBLS | 1992Me07 | ZP A341 475 (92) |
| | | | | 0.14(1) | | | [203Tl] | AB | 1976Ek03/1984Be40 | HFI 1 437 (76)/PS 30 164 (84) |
| | | | | | -0.282(7) | R | est efg | CFBLS | 1992Me07 | ZP A341 475 (92) |
| | 0 + y | 32.8 m | 7+ | +0.530(8) | | | [203,205Tl] | CFBLS | 1992Me07 | ZP A341 475 (92) |
| | | | | +0.540(5) | | | [203,205Tl] | CFBLS | 1987Bo44 | PR C36 2560 (87) |
| | | | | | +0.607(16) | R | est efg | CFBLS | 1992Me07 | ZP A341 475 (92) |
| | | | | | 0.62(1) | | est efg | CFBLS | 1986BoZZ | BAPS 31 874 (86) |
| 81 Tl 195 | 0 | 1.16 h | 1/2+ | +1.58(4) | | | [205Tl] | O | 1969Go21 | PR 188 1897 (69) |
| | | | | +1.59(9) | | | | AB/D, R | 1984Be40 | PS 30 164 (84) |
| | 265 | 3.6 s | 9/2- | +3.87(4) | | | [205Tl] | RIS | 2012Ba32 | PR C86 014311 (12) |
| 81 Tl 196 | 0 | 1.84 h | 2- | +0.072(3) | | | [203,205Tl] | CFBLS | 1992Me07 | ZP A341 475 (92) |
| | | | | 0.07(1) | | | [203Tl] | AB | 1976Ek03/1984Be40 | HFI 1 437 (76)/PS 30 164 (84) |
| | | | | | -0.178(14) | R | est efg | CFBLS | 1992Me07 | ZP A341 475 (92) |
| | 394 | 1.41 h | 7+ | +0.549(8) | | | [203,205Tl] | CFBLS | 1992Me07 | ZP A341 475 (92) |
| | | | | | +0.76(2) | R | est efg | CFBLS | 1992Me07 | ZP A341 475 (92) |
| 81 Tl 197 | 0 | 2.84 h | 1/2+ | +1.58(2) | | | [205Tl] | O | 1966Da15 | JOSA 56 1604 (66) |
| | | | | +1.59(9) | | | | AB/D, R | 1984Be40 | PS 30 164 (84) |
| | 216 | 0.54 s | 9/2- | +4.03(6) | | | [205Tl] | RIS | 2012Ba32 | PR C86 014311 (12) |
| 81 Tl 198 | 0 | 5.3 h | 2- | 0.00(1) | | | [203Tl] | AB | 1976Ek03/1984Be40 | HFI 1 437 (76)/PS 30 164 (84) |
| | 544 | 1.87 h | 7+ | +0.641(10) | | | [203Tl] | AB | 1983Bu04 | NP A395 182 (83) |
| 81 Tl 199 | 0 | 7.4 h | 1/2+ | +1.60(2) | | | [205Tl] | O | 1966Da15 | JOSA 56 1604 (66) |
| | | | | +1.58(7) | | | | AB/D, R | 1984Be40 | PS 30 164 (84) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-------|--------------|--------|---------------------------------|------------|--------------------|------------------|--|---|
| 81 Tl 200 | 0 | 26.1 h | 2- | 0.04(1) | | [203Tl] | AB | 1976Ek03/1984Be40 | HFI 1 437 (76)/PS 30 164 (84) |
| 81 Tl 201 | 0 | 73 h | 1/2+ | +1.605(2) +1.60(7) | | [203,205Tl] | CFBLS AB/D, R | 1987Bo44 1984Be40 | PR C36 2560 (87) PS 30 164 (84) |
| 81 Tl 202 | 0 | 12.2 d | 2- | 0.06(1) | | [203Tl] | AB | 1976Ek03/1984Be40 | HFI 1 437 (76)/PS 30 164 (84) |
| | 950 | 572 μ s | 7+ | +0.90(4) | | | TDPAD | 1974Ha06 | NP A218 180 (74) |
| 81 Tl 203 | 0 | stable | 1/2+ | +1.62225787(12) +1.6231(13) | | [1H] [205Tl] | N CFBLS | 1963Ba23/1950Pr51 1987Bo44 | RSI 34 238 (63)/PR 79 35 (50) PR C36 2560 (87) |
| | 279 | 281 ps | 3/2+ | 0.0(2) +0.16(5) | | [194Pt 328] | TF IPAC | 1979Ha06 1965Ka02 | NP A314 161 (79) NP 61 582 (65) |
| | 681 | 0.88 ps | 5/2+ | +2.6(11) | | [194Pt 328] | TF | 1979Ha06 | NP A314 161 (79) |
| 81 Tl 204 | 0 | 3.78 y | 2- | 0.09(1) | | | AB | 1976Ek03 | HFI 1 437 (76) |
| | 1104 | 63 μ s | (7)+ | +1.187(6) | | | TDPAD | 1972Ma59 | NP A195 577 (72) |
| 81 Tl 205 | 0 | stable | 1/2+ | +1.63821461(12) | | [1H] | N | 1963Ba23/1950Pr51 | RSI 34 238 (63)/PR 79 35 (50) |
| | 204 | 1.5 ns | 3/2+ | -0.8(5) +0.02(12) 0.41(5) | | [194Pt 328] | TF TF Mu-X | 1984HaXX 1979Ha06 1972Ch07 | Cf83Meguro, 145 (83) NP A314 161 (79) NP A181 25 (72) |
| | 619 | 1.0 ps | 5/2+ | +2.0(3) +2.2(7) | 0.74(15) a | R | Mu-X TF | 1972Ch07 1984HaXX | NP A181 25 (72) Cf83Meguro, 145 (83) |
| | 2623 | short | (5/2)- | 0.71(15) | | [194Pt 328] | TF Mu-X | 1979Ha06 1972Ch07 | NP A314 161 (79) NP A181 25 (72) |
| | 3291 | 2.56 μ s | 25/2+ | +6.80(10) | -0.5(2) a | R | Mu-X TDPAD | 1972Ch07 1982Ma05 | NP A181 25 (72) PRL 48 466 (82) |
| 81 Tl 206 | 1405 | 78 ns | (5)+ | +4.27(6) | | | TDPAD | 1976Ha44 | PL 64B 273 (76) |
| 81 Tl 207 | 0 | 4.77 m | 1/2+ | +1.876(5) | | [205Tl] | CFBLS | 1985Ne06 | PRL 55 1559 (85) |
| 81 Tl 208 | 0 | 3.05 m | 5(+) | +0.292(13) | | [205Tl] | LRSRD | 1992La23 | PRL 68 1675 (92) |
| 82 Pb 183 | 0 | 0.53 s | 3/2- | -1.158(5) | | [207Pb] | LRIS | 2009SE13 | Eur Phys J A41 315 (09) |
| | 97 | 0.41 s | 13/2+ | -1.245(6) | | [207Pb] | LRIS | 2009SE13 | Eur Phys J A41 315 (09) |
| 82 Pb 185 | 0 | 6.3 s | 3/2- | -1.141(5) -1.10(4) | | [207Pb] [197Pb] | LRIS RILIS | 2009SE13 2002AN15 | Eur Phys J A41 315 (09) Eur Phys J A14 63 (02) |
| | 0 + y | 4.3 s | 13/2+ | -1.23(1) -1.19(3) | | [207Pb] [197Pb] | LRIS RILIS | 2009SE13 2002AN15 | Eur Phys J A41 315 (09) Eur Phys J A14 63 (02) |
| 82 Pb 187 | 0 | 18.3 s | 13/2+ | -1.210(5) | | [207Pb] | LRIS | 2009SE13 | Eur Phys J A41 315 (09) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|----------|--------------|---------|-------------|------------|----------------|--------|--------------------------|--------------------------|
| | 33 | 15.2 s | 3/2- | -1.126(3) | | [207Pb] | LRIS | 2009SE13 | Eur Phys J A41 315 (09) |
| 82 Pb 188 | 2577 | 797 ns | 8- | -0.30(6) | | | TDPA | 2010IO01 | PR C81 024323 (10) |
| | 2702 | 26 ns | 11- | +11.3(3) | | | TDPA | 2010IO01 | PR C81 024323 (10) |
| | 2710 | 94 ns | 12+ | -2.15(7) | | | TDPA | 2010IO01 | PR C81 024323 (10) |
| 82 Pb 189 | 0 | 51 s | 3/2- | -1.081(9) | | [207Pb] | LRIS | 2009SE13 | Eur J Phys A41 315 (09) |
| | 0 + y | 39 s | 13/2+ | -1.19(1) | | [207Pb] | LRIS | 2009SE13 | Eur J Phys A41 315 (09) |
| 82 Pb 191 | 138 | 2.18 m | 13/2+ | -1.172(7) | | [207Pb] | CFBLS | 1991Du07 | ZP A341 39 (91) |
| | | | | | +0.085(5) | R [207Pb] | CFBLS | 1991Du07 | ZP A341 39 (91) |
| 82 Pb 192 | 2581+d | 1.07 μ s | 12+ | -2.1(2) | | | TDPAD | 2010KM01 | Eur Phys J 45 153 (2010) |
| | | | | -2.08(2) | | | TDPAD | 1983St15 | NP A411 248 (83) |
| | | | | | 0.32(4) | R [194Pb 2628] | TDPAD | 2007IO03 | PL B650 147 (07) |
| | 2743 | 756 ns | 11- | | 2.9(3) | R [194Pb 2628] | TDPAD | 2007IO03 | PL B650 147 (07) |
| 82 Pb 193 | 100 | 5.8 m | 13/2+ | -1.150(7) | | [207Pb] | CFBLS | 1991Du07 | ZP A341 39 (91) |
| | | | | | +0.195(10) | R [207Pb] | CFBLS | 1991Du07 | ZP A341 39 (91) |
| | 1586 + x | 22 ns | (21/2-) | -0.62(12) | | | TDPAD | 2004IO01 | PR C70 034305 (2004) |
| | | | | | 0.22(2) | R [206Pb 4027] | TDPAD | 2004BA31 | EurPJ A20 191 (04) |
| | 2585 + x | 9.4 ns | (27/2-) | +9.2(4) | | | R | 2011Ba02 | PR C83 014304 |
| | | | (27/2) | | 2.6(3) | R | TDPAD | 2011Ba02 | PR C83 014304 |
| | | | (29/2-) | +9.9(4) | | | TDPAD | 1997Ch33 | PRL 79 2002 (97) |
| | | | | | 2.8(3) | R [206Pb 4027] | TDPAD | 2004BA31 | EurPJ A20 191 (04) |
| | 2613 + x | 135 ns | (33/2+) | -2.82(15) | | | TDPAD | 2004IO01 | PR C70 034305 (2004) |
| | | | | | 0.45(4) | R [206Pb 4027] | TDPAD | 2004BA31 | EurPJ A20 191 (04) |
| 82 Pb 194 | 2407 | 18 ns | 9- | -0.38(14) | | | TDPAD | 2004VY01 | PR C69 064318 (04) |
| | | | | -0.6(4) | | | TDPAD | 1985St16 | ZP A322 83 (85) |
| | 2628 | 350 ns | 12+ | -2.076(12) | | | TDPAD | - | Th Berger (87) |
| | | | | -2.00(2) | | | TDPAD | 1985St16 | ZP A322 83 (85) |
| | | | | -1.90(7) | | | TDPAD | 1977Ro15 | NP A285 156 (77) |
| | | | | | 0.49(3) | R [206Pb 4027] | TDPAD | 1985St16 | ZP A322 83 (85) |
| | 2933 | 122 ns | 11- | +11.3(2) | | | TDPAD | 2004VY01 | PR C69 064318 (04) |
| | | | | | 3.6(4) | R [194Pb 2628] | TDPAD | 2007IO03 | PL B650 147 (07) |
| | | | | | 4.8(7) | [196Pb 2694] | LEMS | 2002Vy01 | PR C65 024320 (02) |
| 82 Pb 195 | 203 | 15.0 m | 13/2+ | -1.128(7) | | [207Pb] | CFBLS | 1991Du07 | ZP A341 39 (91) |
| | | | | -1.1318(13) | | [207Pb] | CFBLS | 1987Di06 | ZP A328 253 (87) |
| | | | | | +0.306(15) | R [207Pb] | CFBLS | 1991Du07 | ZP A341 39 (91) |
| | | | | | +0.29(10) | | CFBLS | 1987Di06 | ZP A328 253 (87) |
| | 2699+x | 95 ns | 33/2+ | -2.57(10) | | | TDPAD | 1985St16 | ZP A322 83 (85) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|------|--------------|---------|-------------|--------------|--------------|--------------------------|-----------------------------------|-----------------------------------|-----------------|
| | | | | -3.1(3) | | | TDPAD | 1983RaZW | BAPS 28 702 (83) | |
| 82 Pb 196 | 1797 | 185 ns | 5- | +0.490(15) | | | TDPAD | 1985St16 | ZP A322 83 (85) | |
| | 2307 | 51 ns | 9- | -0.33(9) | | | TDPAD | 2004VY01 | PR C69 064318 (04) | |
| | 2694 | 269 ns | 12+ | -1.92(2) | | | TDPAD | 1983St15 | NP A411 248 (83) | |
| | | | | -1.88(8) | | | TDPAD | 1977Ro15 | NP A285 156 (77) | |
| | | | | | 0.65(5) | R | [206Pb 4027] | TDPAD | 1981Zy02 | HFI 9 109 (81) |
| | 3191 | 85 ns | 11- | +11.4(6) | | | TDPAD | 2004VY01 | PR C69 064318 (04) | |
| | | | | 10.6(9) | | | TDPAD | 1987Pe13 | NP A471 535 (87) | |
| | | | | | (-3.4(7)) | R | LEMS | 2002Vy02 | PRL 88 102502 (02) | |
| 82 Pb 197 | 0 | 8 m | 3/2- | -1.075(2) | | [207Pb] | ABLFS | 1986An06 | NP A451 471 (86) | |
| | | | | | -0.08(17) st | R | ABLFS | 1986An06 | NP A451 471 (86) | |
| | 319 | 43 m | 13/2+ | -1.098(11) | | [207Pb] | CFBLS | 1991Du07 | ZP A341 39 (91) | |
| | | | | -1.105(3) | | [207Pb] | ABLFS | 1986An06 | NP A451 471 (86) | |
| | | | | | +0.38(2) | R | [207Pb] | CFBLS | 1991Du07 | ZP A341 39 (91) |
| | | | | | +0.5(3) st | | ABLFS | 1986An06 | NP A451 471 (86) | |
| | 1913 | 470 ns | 21/2- | -0.531(6) | | | TDPAD | 1985St16 | ZP A322 83 (85) | |
| | 3168 | 55 ns | (33/2+) | -2.51(10) | | | TDPAD | 1985St16 | ZP A322 83 (85) | |
| 82 Pb 198 | 1823 | 49 ns | 5- | +0.38(3) | | | TDPAD | 1985St16 | ZP A322 83 (85) | |
| | 2141 | 4.19 μ s | (8-) | -0.377(6) | | | TDPAD | 1987Ca23 | HFI 34 77 (87) | |
| | | | | -0.376(16) | | | TDPAD | 1985St16 | ZP A322 83 (85) | |
| | 2820 | 212 ns | 12+ | -1.86(2) | | | TDPAD | 1983St15 | NP A411 248 (83) | |
| | | | | -1.73(13) | | | TDPAD | 1977Ro15 | NP A285 156 (77) | |
| | | | | | 0.75(5) | R | [206Pb 4027] | TDPAD | 1981Zy02 | HFI 9 109 (81) |
| 82 Pb 199 | 0 | 1.5 h | 3/2- | -1.0742(12) | | [207Pb] | ABLFS | 1986An06 | NP A451 471 (86) | |
| | | | | | +0.08(9) st | R | ABLFS | 1986An06 | NP A451 471 (86) | |
| | 2579 | 10.6 μ s | 29/2- | -1.076(3) | | | TDPAD | 1988Ro08 | NP A482 573 (88) | |
| | | | | -1.07(7) | | | TDPAD | 1985St16 | ZP A322 83 (85) | |
| | 3509 | 71 ns | (33/2+) | -2.39(15) | | | TDPAD | 1988Ro08 | NP A482 573 (88) | |
| | | | | -2.51(5) | | | TDPAD | 1985St16 | ZP A322 83 (85) | |
| 82 Pb 200 | 2154 | 44 ns | 7- | -0.21(10) | | | TDPAD | 1985St16 | ZP A322 83 (85) | |
| | | | | | 0.32(2) | R | [206Pb 4027] | TDPAD | AECL-6680 27 (79) | |
| | 2183 | 480 ns | 9- | -0.258(9) | | | TDPAD | 1974Lu03/1975Yo04 | NP A229 230 (74)/PR C12 1242 (75) | |
| | | | | -0.25(4) | | | TDPAD | 1985St16 | ZP A322 83 (85) | |
| | | | | | 0.40(2) | R | [206Pb 4027] | TDPAD | AECL-6680 27 (79) | |
| | 3006 | 152 ns | 12+ | -1.849(12) | | | TDPAD | 1988Ro08 | NP A482 573 (88) | |
| | | | | -1.836(7) | | | TDPAD | 1987Fa15 | NP A475 338 (87) | |
| | | | | -1.81(2) | | | TDPAD | 1983St15 | NP A411 248 (83) | |
| | | | | | | TDPAD | 1979Ma37 | PL 88B 48 (79) | | |
| | | | | 0.79(3) | R | [206Pb 4027] | TDPAD | | | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|--------|-----------------------|---------|------------|-------------|-------------|--------------|-----------------------------------|---------------------------------|
| | 5078 | 77 ns | 19- | -1.79(13) | | | TDPAD | 1987Fa15 | NP A475 338 (87) |
| 82 Pb 201 | 0 | 9.33 h | 5/2- | +0.6753(5) | | [207Pb] | ABLFS | 1986An06 | NP A451 471 (86) |
| | | | | | -0.01(4) st | R | ABLFS | 1986An06 | NP A451 471 (86) |
| | 2719 | 63 ns | 25/2- | -0.79(4) | | | TDPAD | 1988Ro08 | NP A482 573 (88) |
| | | | | | 0.46(2) | R | [206Pb 4027] | TDPAD | AECL-6680 27 (79) |
| | 2719+x | 508 ns | 29/2- | -1.011(6) | | | TDPAD | 1988Ro08 | NP A482 573 (88) |
| | 4639+x | 43 ns | 41/2(+) | -3.7(8) | | | TDPAD | 1988Ro08 | NP A482 573 (88) |
| 82 Pb 202 | 1384 | 1.97 ns | 4+ | +0.008(16) | | | IPAC | 1977Th02 | ZP A280 371 (77) |
| | 2170 | 3.62 h | 9- | -0.2276(7) | | [207Pb] | ABLFS | 1986An06 | NP A451 471 (86) |
| | | | | | +0.58(9) st | R | ABLFS | 1986An06 | NP A451 471 (86) |
| | 2208 | 65 ns | 7- | | 0.28(2) | R | [206Pb 4027] | TDPAD | AECL-6680 27 (79) |
| | 4091+x | 110 ns | 16+ | -0.67(16) | | | TDPAD | 1986Ja13 | NP A458 225 (86) |
| | 5242+y | 107 ns | 19- | -1.88(6) | | | TDPAD | 1987Ja08/1987Fa15 | HFI 34 73 (87)/NP A475 338 (87) |
| 82 Pb 203 | 0 | 51.9 h | 5/2- | +0.6864(5) | | [207Pb] | ABLFS | 1986An06 | NP A451 471 (86) |
| | | | | +0.677(12) | | [207Pb] | O | 1987Mo** | JOSA B4 1297 (87) |
| | | | | | +0.10(5) st | R | ABLFS | 1986An06 | NP A451 471 (86) |
| | | | | | -0.5(13) | | O | 1987Mo** | JOSA B4 1297 (87) |
| | 1921 | 56 ns | 21/2+ | -0.64(2) | | | TDPAD | 1986Ja21 | PS 34 717 (86) |
| | | | | | 0.85(3) | R | [206Pb 4027] | TDPAD | AECL-6680 27 (79) |
| | 2923+x | 122 ns | 25/2- | -0.74(4) | | | TDPAD | 1988Ro08 | NP A482 573 (88) |
| 82 Pb 204 | 899 | 2.94 ps | 2+ | <0.02 | | | RIGV, R | 1986Bi13 | HFI 30 265 (86) |
| | | | | | +0.23(9) | R | CER | 1978Jo04 | PL 72B 307 (78) |
| | 1274 | 280 ns | 4+ | +0.225(4) | | | TDPAD, TDPAC | 1974Lu03/1963Sa19 | NP A229 230 (74)/NP 46 377 (63) |
| | | | | | 0.44(2) | R | [206Pb 4027] | TDPAD | AECL-6680 27 (79) |
| | | | | | 0.62(14) st | | [140Ce 2084] | TDPAC | 1974He16 |
| | | | | | | | | | ZP 269 265 (74) |
| 82 Pb 205 | 0 | 1.5x10 ⁷ y | 5/2- | +0.7117(4) | | [207Pb] | ABLFS | 1986An06 | NP A451 471 (86) |
| | | | | +0.709(5) | | [207Pb] | O | 1987Ba85 | ZP D7 165 (87) |
| | | | | | +0.23(4) st | R | ABLFS | 1986An06 | NP A451 471 (86) |
| | | | | | 0.2(4) | | O | 1987Ba85 | ZP D7 165 (87) |
| | 1014 | 5.55 ms | 13/2+ | -0.98(4) | | | TDPAD | 1971Ma59 | NP A176 497 (71) |
| | | | | | 0.30(5) | R | QIR | 1975Ri03/1974DaYM | PS 11 228 (75)/Cf74Upp 254 (74) |
| | 3196 | 217 ns | 25/2- | -0.845(14) | | | TDPAD | 1976Li09 | ZP A277 273 (76) |
| | | | | | 0.63(3) | R | [206Pb 4027] | TDPAD | AECL-6680 27 (79) |
| | 5161 | 63 ns | 33/2+ | -2.44(8) | | | TDPAD | 1983St15 | NP A411 248 (83) |
| 82 Pb 206 | 803 | 8.4 ps | 2+ | <0.03 | | | RIV/D, R | 1986Bi13 | HFI 30 265 (86) |
| | | | | | +0.05(9) | R | CER | 1978Jo04 | PL 72B 307 (78) |
| | 2200 | 123 μ s | 7- | -0.152(3) | | | SOPAD | 1972Ma24 | v |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | R | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|--------------|------|--------------|-------------------|---|--------------|--------|-----------------------------------|----------------------------------|
| | | | | | 0.33(5) | R | | QIR | 1975Ri03/1974DaYM | PS 11 228 (75)/Cf74Upp 254 (74) |
| | 2384 | 29 ps | 6- | +0.8(4) | | | | IPAC | 1970Za03 | NP A146 215 (70) |
| | 4027 | 185 ns | 12+ | -1.80(2) | | | | TDPAD | 1983St15 | NP A411 248 (83) |
| | | | | | estimated 0.51(2) | | [B(E2)] | | 1979Ma37 | PL 88B 48 (79) |
| 82 Pb 207 | 0 | stable | 1/2- | +0.592583(9) | | | [2H] | N | 1971Lu06/1950Pr51 | PL 35A 397 (71)/PR 79 35 (50) |
| | | | | 0.58219(2) | | | [199Hg] | OP/RD | 1969Gi04 | PR 188 180 (69) |
| | 570 | 129 ps | 5/2- | +0.80(3) | | | | IPAC | 1973Ao01 | JPJS 34 271 (73) |
| 82 Pb 208 | 2615 | 15 ps | 3- | +1.9(2) | | | | IPAC | 1973Ao01/1969Bo12 | JPJS 34 271 (73)/PL 29B 226 (69) |
| | | | | | -0.34(15) | R | | CER | 1984Ve07/1983Sp02 | AuJP 37 123 (84)/PL 128B 29 (83) |
| | 3198 | 297 ps | 5- | +0.11(4) | | | [208Pb 2615] | IPAC | 1969Bo01 | NP A138 90 (69) |
| | 4086 | 0.74 fs | 2+ | | -0.7(3) | R | | CER | 1984Ve07 | AuJP 37 123 (84) |
| 82 Pb 209 | 0 | 3.25 h | 9/2+ | -1.4735(16) | | | [207Pb] | ABLFS | 1986An06 | NP A451 471 (86) |
| | | | | | -0.27(17) st | R | | ABLFS | 1986An06 | NP A451 471 (86) |
| 82 Pb 210 | 1195 | 49 ns | 6+ | -1.87(9) | | | | TDPAD | 1983De34 | PR C28 1060 (83) |
| | 1272 | 201 ns | 8+ | -2.50(6) | | | | TDPAD | 1983De34 | PR C28 1060 (83) |
| 82 Pb 211 | 0 | 36.1 m | 9/2+ | -1.4037(8) | | | [207Pb] | ABLFS | 1986An06 | NP A451 471 (86) |
| | | | | | +0.09(6) st | R | | ABLFS | 1986An06 | NP A451 471 (86) |
| 83 Bi 199 | 0 | 11.8 h | 9/2- | 4.6(4) | | | | NO/S | 1988Wo12 | HFI 43 401 (88) |
| 83 Bi 201 | 0 | 108 m | 9/2- | 4.8(3) | | | | NO/S | 1988Wo12 | HFI 43 401 (88) |
| 83 Bi 202 | 0 | 1.72 h | 5+ | 4.9(3) | | | | NO/S | 1988Wo12 | HFI 43 401 (88) |
| | | | [5+] | +4.259(14) | | | [209Bi] | LRFS | 1996Ca02 | NP A598 61 (96) |
| | | | [5+] | | -1.00(9) | R | | R | 2001Bi23 | PRL 87 133003 (2001) |
| | | | [5+] | | -0.72(8) | | [209Bi] | LRFS | 1996Ca02 | NP A598 61 (96) |
| | | | [6+] | +4.325(13) | | | [209Bi] | LRFS | 1996Ca02 | NP A598 61 (96) |
| | | | [6+] | | -1.21(9) | R | | R | 2001Bi23 | PRL 87 133003 (2001) |
| | | | [6+] | | -0.87(9) | | [209Bi] | LRFS | 1996Ca02 | NP A598 61 (96) |
| | 615 | 3.04 μ s | 10- | +2.54(1) | | | | TDPAD | | Th Berger (87) |
| | | | | 2.56(3) | | | | TDPAD | 1982Hu07/1985No09 | NP A382 56 (82)/ZP A322 463 (85) |
| | | | | 2.43(14) | | | | TDPAD | 1980Ki06 | NP A346 324 (80) |
| | | | | | 0.14(2) | R | [209Bi] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.106(13) | | [209Bi] | TDPAD | 1987Ma65 | HFI 34 47 (87) |
| | | | | | 0.07(3) | | [204Pb] | IPAD | 1981Th03 | NP A362 71 (81) |
| | 2607 | 310 ns | 17+ | +2.07(3) | | | | TDPAD | | Th Berger (87) |
| | | | | 2.06(5) | | | | TDPAD | 1982Hu07 | NP A382 56 (82) |
| | | | | | 0.45(2) | R | [209Bi] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|---------|---------|------------|------------|--------------|--------|-----------------------------------|-----------------------------------|
| | | | | | 0.35(3) | [209Bi] | TDPAD | 1987Ma65 | Cf87Melb 127 (87)/HFI 34 47 (87) |
| | | | | | >1.0 | | IPAD | 1981Th03 | NP A362 71 (81) |
| 83 Bi 203 | 0 | 11.8 h | 9/2- | +4.017(13) | | [209Bi] | LRFS | 1996Ca02 | NP A598 61 (96) |
| | | | | +4.62(3) | | [209Bi] | AB | 1959Li50 | ArkF 15 445 (59)/PR A1 685 (70) |
| | | | | | -0.93(7) | R | R | 2001Bi23 | PRL 87 133003 (2001) |
| | | | | | -0.67(7) | [209Bi] | LRFS | 1996Ca02 | NP A598 61 (96) |
| | | | | | -0.68(6) | [209Bi] | AB | 1959Li50 | ArkF 15 445 (59)/PR A1 685 (70) |
| | 1991 | 90 ns | (21/2+) | 2.79(4) | | | TDPAD | 1982Hu07 | NP A382 56 (82) |
| | 2042 | 194 ns | (25/2+) | 3.33(5) | | | TDPAD | 1982Hu07 | NP A382 56 (82) |
| 83 Bi 204 | 0 | 11.22 h | 6+ | +4.322(15) | | [209Bi] | LRFS | 1996Ca02 | NP A598 61 (96) |
| | | | | 4.5(2) | | | NO/S | 1988Wo12 | HFI 43 401 (88) |
| | | | | +4.28(2) | | [209Bi] | AB | 1959Li50 | ArkF 15 445 (59)/PR A1 685 (70) |
| | | | | | -0.7(2) | R | R | 2001Bi23 | PRL 87 133003 (2001) |
| | | | | | -0.49(15) | [209Bi] | LRFS | 1996Ca02 | NP A598 61 (96) |
| | | | | | -0.43(4) | [209Bi] | AB | 1959Li50 | ArkF 15 445 (59)/PR A1 685 (70) |
| | 806 | 13.0 ms | 10- | 2.59(4) | | | NMR/AC | | FortP 25 327 (77) |
| | | | | 2.4(2) | | | TDPAD | 1980KI06/1985No09 | NP A346 324 (80)/ZP A322 463 (85) |
| | | | | | 0.074(2) | R | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.0630(12) | [202 Bi 615] | LEMS | 1991Sc14 | PR C43 2560 (91) |
| 83 Bi 205 | 0 | 15.3 d | 9/2- | +4.065(7) | | [209Bi] | LRFS | 1997Ki15 | PL B405 31 (97) |
| | | | | +4.16(10) | | [209Bi] | O, AB | 1975Ma08/1959Li50 | PRL 34 625 (75)/ArkF 15 445 (59) |
| | | | | | -0.81(3) | R | R | 2001Bi23 | PRL 87 133003 (2001) |
| | | | | | -0.59(4) | [209Bi] | LRFS | 1997Ki15 | PL B405 31 (97) |
| | 2064 | 100 ns | 21/2+ | 2.70(4) | | | TDPAD | 1982Hu07 | NP A382 56 (82) |
| | 2138 | 223 ns | 25/2+ | 3.21(5) | | | TDPAD | 1982Hu07 | NP A382 56 (82) |
| 83 Bi 206 | 0 | 6.243 d | 6+ | +4.361(8) | | [209Bi] | LRFS | 1997Ki15 | PL B405 31 (97) |
| | | | | +4.60(4) | | [209Bi] | AB | 1959Li50 | ArkF 15 445 (59) |
| | | | | | -0.54(4) | R | R | 2001Bi23 | PRL 87 133003 (2001) |
| | | | | | -0.39(4) | [209Bi] | LRFS | 1997Ki15 | PL B405 31 (97) |
| | | | | | -0.20(4) | [209Bi] | AB | 1959Li50 | ArkF 15 445 (59)/PR A1 685 (70) |
| | 1045 | 0.89 ms | (10-) | 2.644(14) | | | NMR/AC | 1985No09 | PL 46B 65 (73)/ZP A322 463 (85) |
| | | | | | 0.057(11) | R | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | 0.049(9) | [202 Bi 615] | LEMS | 1991Sc14 | PR C43 2560 (91) |
| 83 Bi 207 | 0 | 32.2 y | 9/2- | 4.0915(9) | | [209Bi] | LRFS | 2000Pe30 | JP G26 1829 (00) |
| | | | | 4.081(9) | | [209Bi] | O | 1985Ba21 | ZP A321 85 (85) |
| | | | | | -0.76(2) | R | R | 2001Bi23 | PRL 87 133003 (2001) |
| | | | | | -0.55(4) | [209Bi] | LRFS | 2000Pe30 | JP G26 1829 (00) |
| | | | | | -0.60(11) | [209Bi] | O | 1985Ba21 | ZP A321 85 (85) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|-----------------------|--------|----------------------------|--|-------------------|---|---|--|
| | 2101 | 182 μ s | 21/2+ | +3.43(2) +3.41(6) | | | TDPAD SOPAD | 1989Ra17 1972Ma24 | ZfK-445 51 (81) NP A186 97 (72) |
| | | | | | 0.051(9) 0.044(8) | R [202 Bi 615] | R LEMS | 2013StZZ 1991Sc14 | IAEA Rept INDC(NDS)-0650 (2013) PR C43 2560 (91) |
| 83 Bi 208 | 0 | 3.7x10 ⁵ y | 5+ | +4.578(13) | | [209Bi] | LRFS R | 2000Pe30 2001Bi23 | JP G26 1829 (00) PRL 87 133003 (2001) |
| | | | | | -0.70(8) -0.51(7) | R [209Bi] | LRFS | 2000Pe30 | JP G26 1829 (00) |
| | 1571 | 2.53 ms | 10- | 2.672(14) 2.633(14) | | | NMR/AD TDPAD | 1974Hu11/1985No09 1975WhZX | NP A227 421 (74)/ZP A322 463 (85) DisA 36 790B (75) |
| 83 Bi 209 | 0 | stable | 9/2- | +4.1103(5) d +4.1106(2) | | [2H] | R N | 1996Ba94 1953Ti01/1951Pr02 | ZP D37 281 (96) PR 89 595 (53)/PR 81 20 (51) |
| | | | | | -0.516(15) -0.37(3) a -0.55(1) -0.77(1) st -0.40(5) -0.39(3) -0.50(8) a -0.5(2) a | R | R Mu-X AB AB R O Pi-X Pi-X | 2001Bi23 1972Le07 1983De07 1983De07 1974Ho40 1967Di04/1970Ge10 1978Be24 1981Ba07 | PRL 87 133003 (2001) NP A181 14 (72)/PR 169 1 (68) ZP A310 27 (83) ZP A310 27 (83) PS 10 171 (74) CJP 45 2249 (67)/JOSA 60 869 (70) ZP A286 215 (78) NP A355 383 (81) |
| | 2563 | 14 fs | (9/2)+ | 3.5(7) | | | Mu-X | 1972Le07 | NP A181 14 (72) |
| | | | | | +0.15(7) +0.11(5) a | R [209Bi] | R Mu-X | 2013StZZ 1972Le07 | IAEA Rept INDC(NDS)-0650 (2013) NP A181 14 (72) |
| | 2741 | 12 ps | 15/2+ | 6.2(12) | | | Mu-X | 1972Le07 | NP A181 14 (72) |
| | | | | | 0.0(5) a | R | Mu-X | 1972Le07 | NP A181 14 (72) |
| | 2986 | 18 ns | 19/2+ | 3.50(8) | | | TDPAD | 1978Be17 | PR C17 1359 (78) |
| 83 Bi 210 | 0 | 5.01 d | 1- | -0.04451(6) | | [209Bi] | AB, NO/S R | 1962Al02 2001Bi23 | PR 125 256 (62)/JPJS 34 113 (73) PRL 87 133003 (2001) |
| | | | | | +0.190(6) +0.136(1) | R [209Bi] | AB | 1962Al02 | PR 125 256 (62)/PR A1 685 (70) |
| | 271 | 3.0x10 ⁶ y | 9- | +2.73(4) | | [209Bi] | LRFS R | 1989Ra17 1997K115 2001Bi23 | JPJS 34 113 (73) PL B405 31 (97) PRL 87 133003 (2001) |
| | | | | | -0.66(7) -0.47(6) | R [209Bi] | R LRFS | 1997K115 | PL B405 31 (97) |
| | 433 | 56.8 ns | 7- | +2.11(5) | | | TDPAD | 1972Ba65 | PRL 29 496 (72) |
| | 439 | 37 ns | 5- | +1.53(5) | | | TDPAD | 1972Ba65 | PRL 29 496 (72) |
| 83 Bi 211 | 0 | 2.1 m | 9/2- | (+)3.79 | | | NO/S | 1996Wi** | HFI C1 565 (96) |
| | 405 | 315 ps | 7/2- | +4.5(7) | | | IPAC | 1965Aq03 | PL 19 578 (65) |
| 83 Bi 212 | 0 | 60.6 m | 1(-) | +0.32(4) 0.41(5) | | [209Bi] | LRFS NO/S | 1997K115 1992Li25 | PL B405 31 (97) HFI 75 109 (92) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | R | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|--------|-------------|-------|------------|----------|---|--------------|--------------|-----------------------------------|----------------------------------|
| | | | | | +0.1(4) | R | | R | 2001Bi23 | PRL 87 133003 (2001) |
| | | | | | +0.1(3) | | [209Bi] | LRFS | 1997Ki15 | PL B405 31 (97) |
| 83 Bi 213 | 0 | 45.6 m | 9/2- | +3.716(7) | | | [209Bi] | LRFS | 1997Ki15 | PL B405 31 (97) |
| | | | | 3.89(9) | | | | NO/S | 1992Li25 | HFI 75 109 (92) |
| | | | | | -0.83(5) | R | | R | 2001Bi23 | PRL 87 133003 (2001) |
| | | | | | -0.60(5) | | [209Bi] | LRFS | 1997Ki15 | PL B405 31 (97) |
| 84 Po 198 | 1854 | 29 ns | 8+ | +7.3(2) | | | | TDPAD | 1986Ma31 | ZP A324 123 (86) |
| | 2566 | 200 ns | 11- | +12.1(6) | | | | TDPAD | 1986Ma31 | ZP A324 123 (86) |
| | 2692+x | 750 ns | 12+ | -1.86(4) | | | | TDPAD | 1986Ma31 | ZP A324 123 (86) |
| 84 Po 199 | 310 | 4.2 m | 13/2+ | 0.99(7) | | | | NO/S | 1991Wo04 | JP G17 1673 (91) |
| 84 Po 200 | 1774 | 61 ns | 8+ | +7.44(16) | | | | TDPAD | 1986Ma31 | ZP A324 123 (86) |
| | | | | | 1.38(7) | R | [210Po 1557] | TDPAD, R | 1987Ma65 | HFI 34 47 (87) |
| | 2596 | 100 ns | 11- | +11.9(2) | | | | TDPAD | 1986Ma31 | ZP A324 123 (86) |
| | 2830 | 270 ns | 12+ | -1.79(2) | | | | TDPAD | 1986Ma31 | ZP A324 123 (86) |
| 84 Po 201 | 0 | 15.3 m | 3/2- | 0.94(8) | | | | NO/S | 1991Wo04 | JP G17 1673 (91) |
| | 425 | 8.9 m | 13/2+ | 1.00(7) | | | | NO/S | 1991Wo04 | JP G17 1673 (91) |
| 84 Po 202 | 1712 | 110 ns | 8+ | 7.45(12) | | | | TDPAD | 1976Ha56 | NP A273 253 (76) |
| | | | | | 1.21(16) | R | | LEMS | 1997Ne06 | NP A625 668 (97) |
| | 2625 | 85 ns | 11- | 11.9(4) | | | | TDPAD | 1976Ha56 | NP A273 253 (76) |
| 84 Po 203 | 0 | 36.7 m | 5/2- | 0.74(6) | | | | NO/S | 1991Wo04 | JP G17 1673 (91) |
| | | | | (+0.74(3)) | | | | NO/S | 1987VaZH | Cf87Melb 174 (87) |
| 84 Po 204 | 1639 | 158 ns | 8+ | +7.38(10) | | | | SOPAD | 1973Br14 | NP A206 452 (73) |
| | | | | | 1.14(5) | R | [210Po 1557] | TDPAD | 1987Ma65 | HFI 34 47 (87) |
| | 3565 | 12 ns | 15- | 5.6(6) | | | [208Po 1524] | TDPAD | 1982Ha16/1983He09 | ZP A305 1 (82)/ZP A311 351 (83) |
| 84 Po 205 | 0 | 1.66 h | 5/2- | +0.76(6) | | | [207Po] | NMR/ON | 1983He09 | ZP A311 351 (83) |
| | 880 | 640 μ s | 13/2+ | -0.95(5) | | | | TDPAD | 1974BrXD | Cf74Upp 116 (74) |
| 84 Po 206 | 1586 | 212 ns | 8+ | +7.34(7) | | | | SOPAD, TDPAD | 1973Br14 | NP A211 38 (73)/NP A206 452 (73) |
| | | | | | 1.02(4) | R | [210Po 1557] | TDPAD | 1987Ma65 | HFI 34 47 (87) |
| 84 Po 207 | 0 | 5.79 h | 5/2- | +0.79(6) | | | | NMR/ON | 1983He09 | ZP A311 351 (83) |
| | 1115 | 47 μ s | 13/2+ | -0.910(14) | | | | TDPAD | 1973Ri06 | PL 44B 456 (73) |
| | 2380 | 43 ns | 25/2+ | 5.41(4) | | | | TDPAD | 1985Ro07 | PS 31 122 (85) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|-------------|---------|------------|-------------|--------------------------------|--------------|-----------------------------------|------------------------------------|
| 84 Po 208 | 1524 | 4.3 ns | 6+ | +5.3(6) | | [Bhf PoNi] | TDPAD, R | 1982Ha16/1983He09 | ZP A305 1 (82)/ZP A311 351 (83) |
| | 1528 | 380 ns | 8+ | +7.37(5) | | | SOPAD, TDPAD | 1976Ha56 | NP A273 253 (76)/NP A211 38 (73) |
| | 2703 | 8.0 ns | 11- | 12.11(14) | 0.90(4) | R [210Po 1557] | TDPAD | 1987Ma65 | HFI 34 47 (87) |
| | | | | | | | TDPAD | 1985Ro07 | PS 31 122 (85) |
| 84 Po 209 | 0 | 102 y | 1/2- | 0.68(8) | | | O | 1966Ch** | JOSA 56 1292 (66) |
| | 1418 | 24.4 ns | (13/2)- | 6.13(9) | | | TDPAD | 1976Ha56 | NP A273 253 (76) |
| | 1473 | 98.1 ns | (17/2-) | 7.75(5) | | | TDPAD | 1976Ha56/1974Na02 | NP A273 253 (76)/NIM 114 349 (74) |
| | 4266 | 118 ns | 31/2- | +9.68(8) | (-)0.39(8) | R [210Po 1557] [208Po 1528] | TDPAD | 1983Da01 | NP A394 245 (83) |
| | | | | | | | TDPAD | 1976Re12 | PS 14 95 (76) |
| 84 Po 210 | 1473 | 43 ns | 6+ | 5.48(5) | | | TDPAD | 1976Ha56 | NP A273 253 (76) |
| | 1557 | 96 ns | 8+ | +7.35(5) | | | TDPAD | 1976Ha56 | NP A273 253 (76) |
| | | | | | (-)0.55(2) | est. from B(E2) | not measured | 1987Ma65/1983Da01 | HFI 34 47 (87)/NP A394 245 (83) |
| | 2849 | 20.1 ns | 11- | +12.20(9) | | | TDPAD | 1976Ha56/1976Re12 | NP A273 253 (76)/PS 14 95 (76) |
| | | | | | -0.86(11) | R [210Po 1557] | TDPAD | 1991Be03 | NP A522 483 (91) |
| | | | | | -0.8(2) | [210Po 1557] | TDPAD | 1983Da01 | NP A394 245 (83) |
| | 4372 | 51 ns | 13- | 6.8(2) | | | TDPAD | 1985Be22 | PS 31 333 (85) |
| | | | | | -0.90(7) | R [210Po 1557] | TDPAD | 1991Be03 | NP A522 483 (91) |
| | | | | | (-)0.62(11) | [210Po 1557] | TDPAD | 1983Da01 | NP A394 245 (83) |
| | 5058 | 265 ns | 16+ | 9.84(8) | | | TDPAD | 1985Be22 | PS 31 333 (85) |
| | | | | | -1.30(2) | R [210Po 1557] | TDPAD | 1991Be03 | NP A522 483 (91) |
| | | | | | 1.34(8) | [210Po 1557] | TDPAD | | BAPS 31 1236 (86) |
| 84 Po 211 | 1065 | 16 ns | 15/2- | -0.38(15) | | | IPAD | 1989Ra17 | JPJS 34 287 (73) |
| 85 At 207 | 2117 | 108 ns | 25/2+ | +3.75(13) | | [208Po 1528] | TDPAD | 1978Sj01/1981Sj01 | PL 76B 397 (78)/PR C23 272 (81) |
| 85 At 208 | 1090 | 48 ns | 10- | +2.69(3) | | | TDPAD | 1985No09 | ZP A322 463 (85) |
| | 2276 | 1.5 μ s | 16- | | (-)1.67(18) | R [211At 1417] | LEMS | 1991Sc15 | PR C43 2566 (91) |
| 85 At 209 | 1428 | 26 ns | 21/2- | +10.0(2) | | | TDPAD | 1976Sj01 | PR C14 1023 (76) |
| | | | | | (-)0.78(6) | R [211At 1417] | TDPAD/R | 1983Ma08/1995Ba66 | PL 122B 27 (83)/NP A591 104 (1995) |
| | 2429 | 890 ns | 29/2+ | 15.38(14) | | | TDPAD | 1987Ma65 | HFI 34 47 (87) |
| | | | | | 1.50(15) | [211At 1417] | LEMS | 1991Sc15 | PR C43 2566 (91) |
| | | | | | (-)1.49(9) | R [211At 1417] | TDPAD/R | 1983Ma08/1995Ba66 | PL 122B 27 (83)/NP A591 104 (1995) |
| 85 At 210 | 1363 | 28.4 ns | 11+ | +9.8(3) | | | TDPAD | | ARRIP 140 (74) |
| | | | | | (-)0.64(5) | R [211At 1417] | TDPAD/R | 1983Ma08/1995Ba66 | PL 122B 27 (83)/NP A591 104 (1995) |
| | 2550 | 480 ns | 15- | +15.68(2) | | | TDPAD | | Th Berger (87) |
| | | | | 15.48(15) | | | TDPAD | 1987Ma65 | HFI 34 47 (87) |
| | | | | 15.57(15) | | | TDPAD, R | 1978Ra03 | ZP A284 357 (78) |
| | | | | | (-)1.21(7) | [211At 1417] | LEMS | 1991Sc15 | PR C43 2566 (91) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|--------|-------------|---------|----------------------|---------------|---|--------------|------------------|---|--|
| | 4028 | 5.9 μ s | 19+ | 13.26(13) 14.0(5) | 1.21(7) | R | [211At 1417] | TDPAD/R TDPAD | 1983Ma08/1995Ba66 1987Ma65 | PL 122B 27 (83)/NP A591 104 (1995) HFI 34 47 (87) |
| | | | | | (-).2.16(18) | R | [211At 1417] | TDPAD LEMS | 1978Ra03 1991Sc15 | ZP A284 357 (78) PR C43 2566 (91) |
| 85 At 211 | 1417 | 35.1 ns | 21/2- | +9.56(9) | | | | TDPAD | 1976Ha62/1975In01 | HFI 2 334 (76)/PR C11 243 (75) |
| | | | | | (-).0.524(10) | | estimated | B(E2) | 1983Ma08/1995Ba66 | PL 122B 27 (83)/NP A591 104 (1995) |
| | 2641 | 50.8 ns | 29/2+ | +15.31(13) | | | | TDPAD | 1976Ha62/1975In01 | HFI 2 334 (76)/PR C11 243 (75) |
| | | | | | (-).1.01(7) | R | [211At 1417] | TDPAD/R | 1983Ma08/1995Ba66 | PL 122B 27 (83)/NP A591 104 (1995) |
| | | | | | 1.0(2) | | [211At 1417] | TDPAD | 1983Ma08 | PL 122B 27 (83) |
| | 4816 | 4.2 μ s | 39/2- | 13.46(14) | | | | TDPAD | 1985Be22 | PS 31 333 (85) |
| | | | | | (-).1.88(19) | R | [211At 1417] | LEMS | 1991Sc15 | PR C43 2566 (91) |
| 85 At 212 | 888 | 19.4 ns | 11+ | 5.94(11) 5.95(12) | | | | TDPAD | 1994By01 | NP A567 445 (94) |
| | | | | | | | | TDPAD | 1979Sj01 | PR C20 960 (79) |
| | 1616 | 37 ns | 15- | 9.46(8) 9.33(15) | | | | TDPAD | 1994By01 | NP A567 445 (94) |
| | | | | | | | | TDPAD | 1979Sj01 | PR C20 960 (79) |
| 85 At 217 | 0 | 32 ms | 9/2- | 3.8(2) | | | | NO/S | 1992Li26 | HFI 75 323 (92) |
| 86 Rn 203 | 361 | 28 s | (13/2+) | -0.960(11) | | | [209Rn] | CFBLS | 1987Bo29 | HFI 34 25 (87) |
| | | | | | +1.28(13) | R | [209Rn] | CFBLS | 1987OtZW | CERN EP/87 51 (87) |
| 86 Rn 205 | 0 | 2.83 m | 5/2- | +0.802(9) | | | [209Rn] | CFBLS | 1987Bo29 | HFI 34 25 (87) |
| | | | | | +0.062(6) | R | [209Rn] | CFBLS | 1987OtZW | CERN EP/87 51 (87) |
| 86 Rn 206 | 1922 | 13.5 ns | 8+ | 6.6(4) | | | | TDPAD | 1981Ma28 | HFI 9 87 (81) |
| | 2476 | 65 ns | (10-) | 11.20(10) | | | | TDPAD | 1981Ma28 | HFI 9 87 (81) |
| 86 Rn 207 | 0 | 9.3 m | 5/2- | +0.816(9) | | | [209Rn] | CFBLS | 1987Bo29 | HFI 34 25 (87) |
| | | | | | +0.22(2) | R | [209Rn] | CFBLS | 1987OtZW | CERN EP/87 51 (87) |
| | 899 | 180 μ s | 13/2+ | -0.903(3) | | | | TDPAD | 1981Ma28 | HFI 9 87 (81) |
| 86 Rn 208 | 1826 | 490 ns | 8+ | 6.98(8) | | | | TDPAD | 1981Ma28 | HFI 9 87 (81) |
| | | | | | 0.41(5) | R | [212Rn 1694] | TDPAD | 1986Be40 | PL 182B 11 (86) |
| | 2615 | 22 ns | 10- | 10.77(10) | | | | TDPAD | 1981Ma28 | HFI 9 87 (81) |
| 86 Rn 209 | 0 | 29 m | 5/2- | (+).0.8388(4) | | | [129Xe 236] | N, OP/RD | 1988Ki03 | PRL 60 2133 (88) |
| | | | | | +0.31(3) | R | | CFBLS | 1987OtZW | CERN EP/87 51 (87) |
| 86 Rn 210 | 1665+x | 644 ns | (8+) | 7.18(6) 7.06(8) | | | | TDPAD | 1986Po01 | NP A448 189 (86) |
| | | | | | | | | TDPAD | 1981Ma28 | HFI 9 87 (81) |
| | | | | | 0.32(4) | R | [212Rn 1694] | TDPAD | 1986Be40 | PL 182B 11 (86) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|----------------|--------------|-------|------------|------------|-------------|--------------|-----------------------------------|-----------------------------------|------------------|
| | 2563+x | 64 ns | (11)- | 12.16(11) | | | TDPAD | 1981Ma28 | HFI 9 87 (81) | |
| | 3248+x | 72 ns | (14)+ | 14.92(10) | | | TDPAD | 1986Po01 | NP A448 189 (86) | |
| | | | | 14.6(3) | | | TDPAD | 1981Ma28 | HFI 9 87 (81) | |
| | 3812+x | 1.05 μ s | (17)- | 17.88(9) | | | TDPAD | 1986Po01 | NP A448 189 (86) | |
| | | | | 17.7(2) | | | TDPAD | 1981Ma28 | HFI 9 87 (81) | |
| | | | | | 0.89(10) | R | [212Rn 1694] | TDPAD | 1986Be40 | PL 182B 11 (86) |
| | 4993+ δ | 12.3 ns | (20)+ | 22.3(1) | | | | 1986Po01 | NP A448 189 (86) | |
| | 6468+ δ | 1.04 μ s | (22)+ | 15.42(15) | | | | 1986Po01 | NP A448 189 (86) | |
| | 7310+ δ | 34 ns | (25)- | 18.3(2) | | | | 1986Po01 | NP A448 189 (86) | |
| 86 Rn 211 | 0 | 14.6 h | 1/2- | +0.601(7) | | | | 1988Ki03 | PRL 60 2133 (88) | |
| | 1578+x | 596 ns | 17/2- | +7.75(8) | | | | 1985Po06 | PL 154B 263 (85) | |
| | | | | | 0.19(2) | R | [212Rn 1694] | TDPAD | 1985Da14 | PRL 55 1269 (85) |
| | 3926+x | 40 ns | 35/2+ | +17.8(2) | | | | 1985Po06 | PL 154B 263 (85) | |
| | 5246+y | 14 ns | 43/2- | +15.9(4) | | | | 1985Po06 | PL 154B 263 (85) | |
| | 6100+y | 29 ns | 49/2+ | +18.8(2) | | | | 1985Po06 | PL 154B 263 (85) | |
| | 8855+y | 201 ns | 63/2- | +19.6(2) | | | | 1985Po06 | PL 154B 263 (85) | |
| | | | | | 1.6(2) | R | [212Rn 1694] | TDPAD | 1985Da14 | PRL 55 1269 (85) |
| 86 Rn 212 | 1502 | 8.8 ns | 4+ | 4.0(2) | | | | 1988St17 | NP A486 397 (88) | |
| | 1640 | 118 ns | 6+ | 5.45(5) | | | | 1988St17 | NP A486 397 (88) | |
| | 1694 | 0.91 μ s | 8+ | +7.15(2) | | | TDPAD, SOPAD | 1979Ho06/1978Ha50 | NP A317 520 (79)/HFI 4 219 (78) | |
| | | | | 7.16(6) | | | | 1988St17 | NP A486 397 (88) | |
| | | | | | (-)0.18(2) | | [B(E2)] | 1985Da13 | PC Dafni (87)/NP A441 501 (85) | |
| | 3358 | 7.4 ns | 14+ | 15.0(4) | | | | 1988St17 | NP A486 397 (88) | |
| | 4067 | 29 ns | 17- | 17.9(2) | | | | 1988St17 | NP A486 397 (88) | |
| | | | | 17.9(3) | | | | 1979Ho06 | NP A317 520 (79) | |
| | | | | | | | | 1977Ho17 | PRL 39 389 (77) | |
| | 6167+x | 104 ns | 22+ | 15.8(2) | | | | 1988St17 | NP A486 397 (88) | |
| | | | | 15.8(2) | | | | 1979Ho06 | NP A317 520 (79) | |
| | | | | | | | | 1977Ho17 | PRL 39 389 (77) | |
| | 7135+x | 18 ns | 25- | 17.8(5) | | | | 1979Ho06 | NP A317 520 (79)/JPJS 44 605 (78) | |
| | | | | | | | | 1977Ho17 | PRL 39 389 (77) | |
| | 7871+x | 14 ns | 27- | 17.0(8) | | | | 1979Ho06 | NP A317 520 (79)/JPJS 44 605 (78) | |
| | | | | | | | | 1977Ho17 | PRL 39 389 (77) | |
| | 8571+x | 154 ns | 30+ | 19.71(9) | | | | 1979Ho06 | NP A317 520 (79)/JPJS 44 605 (78) | |
| | | | | | | | | 1977Ho17 | PRL 39 389 (77) | |
| 86 Rn 213 | 1664 | 29 ns | 21/2+ | 4.73(11) | | | | 1988St10 | NP A482 692 (88) | |
| | 1664+x | 1 μ s | 25/2+ | 7.3(3) | | | | 1976McZD | AECL-5614 13 (76) | |
| | | | | 7.6(3) | | | | 1988St10 | NP A482 692 (88) | |
| | 2187+x | 1.36 μ s | 31/2- | 9.90(8) | | | | 1988St10 | NP A482 692 (88) | |
| | 3029+x | 26 ns | 37/2+ | 13.67(13) | | | | 1988St10 | NP A482 692 (88) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|--------|---------|---------|------------|-------------|-------------|----------|-----------------------------------|---------------------------------|
| | 3494+x | 28 ns | 43/2- | 15.59(15) | | | TDPAD | 1988St10 | NP A482 692 (88) |
| | 4506+x | 12 ns | 49/2+ | 19.9(3) | | | TDPAD | 1988St10 | NP A482 692 (88) |
| | 5929+y | 164 ns | (55/2+) | 16.61(14) | | | TDPAD | 1988St10 | NP A482 692 (88) |
| 86 Rn 219 | 0 | 3.96 s | 5/2+ | -0.442(5) | | [209Rn] | CFBLS, R | 1988Ki03 | PRL 60 2133 (88) |
| | | | | | +0.93(9) | [209Rn] | CFBLS, R | 1988NeZZ | Bk88 NFFS 126 (88) |
| | | | | | +1.15(12) | R [209Rn] | CFBLS | 1987OtZW | CERN EP/87-15 (87) |
| 86 Rn 221 | 0 | 25 m | (7/2+) | -0.020(1) | | [209Rn] | CFBLS | 1988Ki03 | PRL 60 2133 (88) |
| | | | | | -0.38(4) | [209Rn] | CFBLS, R | 1988NeZZ | Bk88 NFFS 126 (88) |
| | | | | | -0.47(5) | R [209Rn] | CFBLS | 1987OtZW | CERN EP/87-15 (87) |
| 86 Rn 222 | 186 | 0.32 ns | 2+ | +0.92(14) | | | IPAC | 1970Or02 | NP A148 516 (70) |
| 86 Rn 223 | 0 | 23.2 m | 7/2 | -0.776(8) | | [209Rn] | CFBLS | 1988Ki03 | PRL 60 2133 (88) |
| | | | | | +0.99(10) | R [209Rn] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.80(8) | [209Rn] | CFBLS | 1988NeZZ | Bk88 NFFS 126 (88) |
| 86 Rn 225 | 0 | 4.5 m | 7/2- | -0.696(8) | | [209Rn] | CFBLS | 1988Ki03 | PRL 60 2133 (88) |
| | | | | | +1.04(10) | R [209Rn] | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.84(8) | [209Rn] | CFBLS | 1988NeZZ | Bk88 NFFS 126 (88) |
| 87 Fr 202 | 0 | 0.30 s | (3+) | +3.90(5) | | [211Fr] | CLS | 2013FI09 | PRL 111 212501 (2013) |
| | 0+x | 0.29 s | (10-) | +2.34(4) | | [211Fr] | CLS | 2013FI09 | PRL 111 212501 (2013) |
| 87 Fr 203 | 0 | 0.55s | (9/2-) | +3.73(4) | | [211Fr] | CLS | 2013FI09 | PRL 111 212501 (2013) |
| 87 Fr 204 | 0 | 1.8 s | 3+ | +4.02(6) | | [211Fr] | CLS | 2013Vo10 | PRL 111 122501 (2013) |
| 87 Fr 205 | 0 | 3.9 s | 9/2- | +3.81(5) | | [211Fr] | CLS | 2013FI09 | PRL 111 212501 (2013) |
| | | | 9/2- | +3.89(8) | | [211Fr] | CLS | 2013Vo10 | PRL 111 122501 (2013) |
| 87 Fr 206 | 0 | 16 s | 3+ | +3.97(6) | | [211Fr] | CLS | 2013Vo10 | PRL 111 122501 (2013) |
| 87 Fr 207 | 0 | 14.8 s | 9/2- | +3.89(8) | | [211Fr] | ABLS | 1985Co24 | PL 163B 66 (85) |
| | | | | | -0.16(5) st | R | ABLS | 1985Co24 | PL 163B 66 (85) |
| 87 Fr 208 | 0 | 58.6 s | 7+ | +4.75(10) | | [211Fr] | ABLS | 1985Co24/1986Ek02 | PL 163B 66 (85)/PS 34 624 (86) |
| | | | | | 0.00(4) | R | ABLS | 1985Co24 | PL 163B 66 (85) |
| 87 Fr 209 | 0 | 50 s | 9/2- | +3.95(8) | | [211Fr] | ABLS | 1985Co24/1986Ek02 | PL 163B 66 (85)/PS 34 624 (86) |
| | | | | | -0.24(2) st | R | ABLS | 1985Co24 | PL 163B 66 (85) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | | | | |
|-----------|-------------|--------|----------|---------------|--------------|--------------|--------------------------|-----------------------------------|--------------------------------|-----------------------------------|-------------------------------|--------------------------|------------------|
| 87 Fr 210 | 0 | 3.2 m | 6+ | +4.38(5) | | [211Fr] | TLS | 2008GO11 | PRL 100 172502 (08) | | | | |
| | | | | +4.40(9) | | [211Fr] | ABLS | 1985Co24 | PL 163B 66 (85) | | | | |
| | | | | | +0.19(2) st | R | ABLS | 1985Co24 | PL 163B 66 (85) | | | | |
| 87 Fr 211 | 0 | 3.1 m | 9/2- | +4.00(8) | | | AB/D | 1986Ek02 | PS 34 624 (86) | | | | |
| | | | | | -0.19(3) st | R | ABLS | 1985Co24 | PL 163B 66 (85) | | | | |
| | | | | 2423 | 146 ns | 29/2+ | 15.37(15) | | TDPAD | 1986By01 | NP A448 137 (86) | | |
| | | | | | | | | -1.07(18) | R | [213Fr 2538] | LEMS | 1991Ha02 | PR C43 514 (91) |
| | | | | 4657 | 123 ns | 45/2- | 24.3(2) | | TDPAD | 1986By01 | NP A448 137 (86) | | |
| 87 Fr 212 | 0 | 19.3 m | 5+ | +4.62(9) | | [211Fr] | ABLS | 1985Co24 | PL 163B 66 (85) | | | | |
| | | | | | -0.10(1) st | R | ABLS | 1985Co24 | PL 163B 66 (85) | | | | |
| | | | | 1551 | 27 μ s | 11+ | 9.89(4) | | SOPAD | 1977Be56 | HFI 3 297 (77) | | |
| | | | | 2492 | 604 ns | (15-) | +15.65(12) | | TDPAD | 1989By01 | PL B217 38 (89) | | |
| | | | | | | | 15.60(15) | | TDPAD | 1986By01 | NP A448 137 (86) | | |
| | | | | | | | | (-)0.84(13) | R | [213Fr 2538] | TDPAD | 1990By03 | NP A516 145 (90) |
| | | | | | | | | -0.80(12) | | [213Fr 2538] | LEMS | 1991Ha02 | PR C43 514 (91) |
| | | | | 4834 | 4.2 ns | 22+ | 22(4) | | TDPAD | 1986By01 | NP A448 137 (86) | | |
| | | | | 5854 | 312 ns | (27-) | 21.9(3) | | TDPAD | 1986By01 | NP A448 137 (86) | | |
| | | | | | | | | (-)1.7(3) | R | [213Fr 2538] | TDPAD | 1990By03 | NP A516 145 (90) |
| | | | | -1.5(3) | | [213Fr 2538] | LEMS | 1991Ha02 | PR C43 514 (91) | | | | |
| 87 Fr 213 | 0 | 34.7 s | 9/2- | +4.02(8) | | [211Fr] | ABLS | 1985Co24/1986Ek02 | PL 163B 66 (85)/PS 34 624 (86) | | | | |
| | | | | | -0.14(2) st | R | ABLS | 1985Co24 | PL 163B 66 (85) | | | | |
| | | | | 1411 | 18 ns | 17/2- | 7.5(14) | | TDPAD | 1986By01 | NP A448 137 (86) | | |
| | | | | 1590 | 499 ns | 21/2- | 9.4(2) | | TDPAD | 1986By01 | NP A448 137 (86) | | |
| | | | | | | | 9.32(3) | | TDPAD, R | 1977Be56/1978Ha50 | HFI 3 397 (77)/HFI 4 219 (78) | | |
| | | | | 2538 | 243 ns | 29/2+ | +15.30(7) | | TDPAD | 1989By01 | PL B217 38 (89) | | |
| | | | | | | | 15.23(14) | | TDPAD | 1986By01 | NP A448 137 (86) | | |
| | | | | | | | 15.22(3) | | TDPAD | 1977Be56/1978Ha50 | HFI 3 397 (77)/HFI 4 219 (78) | | |
| | | | | | | | | [-0.70(7)] | | calculated | not measured | 1990By03 | NP A516 145 (90) |
| | | | | 4993 | 13 ns | 45/2- | 23.2(7) | | TDPAD | 1986By01 | NP A448 137 (86) | | |
| | | | | | | | 22.3(6) | | TDPAD | 1979Ho06 | NP A317 520 (79) | | |
| 8095 | 3.1 μ s | 65/2- | +22.6(2) | | [213Fr 2538] | TDPAD | 1989By01 | PL B217 38 (89) | | | | | |
| | | | | (-)2.2(5) | R | [213Fr 2538] | LEMS | 1991Ha02 | PR C43 514 (91) | | | | |
| 87 Fr 214 | 640 | 103 ns | 11+ | +5.62(7) K, d | | [213Fr 2538] | TDPAD | 1994By01 | NP A567 445 (94) | | | | |
| | | | | | 0.8(2) | R | [213Fr 2538] | LEMS | 1995Ne06 | PR C51 3483 (95) | | | |
| | | | | 1663 or 1734 | 11 or 10 ns | 14- or 15- | +8.5(4) K, d | | [213Fr 2538] | TDPAD | 1994By01 | NP A567 445 (94) | |
| | | | | 4318+D | 8 ns | 27- | +19.7(8) K, d | | [213Fr 2538] | TDPAD | 1994By01 | NP A567 445 (94) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|-----------|---------|------------|-------------|--------------|--------------|----------|-----------------------------------|----------------------------------|
| | 6477+D' | 108 ns | 33+ | +22(3) | | [213Fr 2538] | TDPAD | 1994By01 | NP A567 445 (94) |
| | | | 32+ or 33+ | | 2.2(5) | [213Fr 2538] | LEMS | 1995Ne06 | PR C51 3483 (95) |
| 87 Fr 215 | 1500+/-75 | 4 ns | (21/2)+/-1 | g=0.33(10) | | | TDPAD | 1984De16 | NP A419 163 (84) |
| | 2016 | 4.7 ns | 29/2+ | 7(3) | | | TDPAD | 1984De16 | NP A419 163 (84) |
| | 2251 | 5.3 ns | 33/2+ | 8(2) | | | TDPAD | 1984De16 | NP A419 163 (84) |
| | 3068 | 14.6 ns | 39/2- | 9.2(2) | | | TDPAD | 1984De16 | NP A419 163 (84) |
| 87 Fr 220 | 0 | 27.4 s | 1+ | -0.67(1) | | [211Fr] | ABLS | 1985Co24 | PL 163B 66 (85) |
| | | | | | +0.47(3) st | R | ABLS, R | 1985Co24/1987Co19 | PL 163B 66 (85)/NP A468 1 (87) |
| 87 Fr 221 | 0 | 4.8 m | 5/2- | +1.58(3) | | [211Fr] | ABLS | 1985Co24 | PL 163B 66 (85) |
| | | | | | -0.98(6) st | R | ABLS, R | 1985Co24/1987Co19 | PL 163B 66 (85)/NP A468 1 (87) |
| 87 Fr 222 | 0 | 14.2 m | 2- | +0.63(1) | | [211Fr] | ABLS | 1985Co24 | PL 163B 66 (85) |
| | | | | | +0.51(4) st | R | ABLS | 1985Co24 | PL 163B 66 (85) |
| 87 Fr 223 | 0 | 21.8 m | 3/2(-) | +1.17(2) | | [211Fr] | ABLS | 1985Co24 | PL 163B 66 (85) |
| | | | | | +1.17(1) | R | ABLS | 1985Co24 | PL 163B 66 (85) |
| 87 Fr 224 | 0 | 3.3 m | 1(-) | +0.40(1) | | [211Fr] | ABLS | 1985Co24 | PL 163B 66 (85) |
| | | | | | +0.517(4) st | R | ABLS | 1985Co24 | PL 163B 66 (85) |
| 87 Fr 225 | 0 | 3.9 m | 3/2- | +1.07(2) | | [211Fr] | ABLS | 1985Co24 | PL 163B 66 (85) |
| | | | | | +1.32(5) st | R | ABLS, R | 1985Co24/1987Co19 | PL 163B 66 (85)/NP A468 1 (87) |
| 87 Fr 226 | 0 | 48 s | 1 | +0.0712(14) | | [211Fr] | ABLS | 1986Du16 | JPPa 47 1903 (86) |
| | | | | +0.071(2) | | [211Fr] | ABLS | 1985Co24 | PL 163B 66 (85) |
| | | | | | -1.35(2) st | R | ABLS | 1985Co24 | PL 163B 66 (85) |
| 87 Fr 227 | 0 | 2.4 m | 1/2+ | +1.50(3) | | [211Fr] | ABLS | 1985Co24 | PL 163B 66 (85) |
| 87 Fr 228 | 0 | 39 s | 2- | -0.76(2) | | [211Fr] | ABLS | 1985Co24 | PL 163B 66 (85) |
| | | | | | +2.38(5) st | R | ABLS | 1985Co24 | PL 163B 66 (85) |
| 88 Ra 209 | 0 | 4.7 s | 5/2- | +0.865(13) | | [213,225Ra] | CFBLS, R | 1988Ah02/1987Ar20 | NP A483 244 (88)/PRL 59 771 (87) |
| | | | | | +0.39(4) | R | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.40(4) st | [221,223Ra] | CFBLS | 1989Ne03 | ZP D11 105 (89) |
| | | | | | +0.38(4) st | | CFBLS | 1988Ah02/1987We03 | NP A483 244 (88)/ZP D4 227 (87) |
| 88 Ra 211 | 0 | 13s | 5/2- | +0.878(4) | | [213,225Ra] | CFBLS, R | 1988Ah02/1987Ar20 | NP A483 244 (88)/PRL 59 771 (87) |
| | | | | | +0.46(4) | R | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +0.48(4) st | [221,223Ra] | CFBLS | 1989Ne03 | ZP D11 105 (89) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|--------|--------------|---------|------------------|------------------|--------------|----------|-----------------------------------|----------------------------------|
| | | | | | +0.46(5) st | | CFBLS, R | 1988Ah02/1987We03 | NP A483 244 (88)/ZP D4 227 (87) |
| 88 Ra 212 | 1958 | 10.9 μ s | 8+ | 7.10(7) | | | SOPAD | 1986Ko01 | PR C33 392 (86) |
| | | | | | Q/Qref = 1.5(4) | [214Ra 1864] | LEMS | 1993Ne04 | NP A555 629 (93) |
| | 2613 | 0.85 μ s | 11- | 12.0(2) | | | SOPAD | 1986Ko01 | PR C33 392 (86) |
| 88 Ra 213 | 0 | 2.7 m | 1/2- | +0.613(2) | | [137Ba] | CFBLS | 1987Ar20/1988Ah02 | PRL 59 771 (87)/NP A483 244 (88) |
| | 1770 | 2.1 ms | (17/2-) | 7.4(4) | | [214Ra 1865] | LEMS | 1994Ne01 | PR C49 645 (94) |
| | | | | | Q/Qref = 1.21(8) | [214Ra 1865] | LEMS | 1993Ne04 | NP A555 629 (93) |
| 88 Ra 214 | 1865 | 67 μ s | 8+ | 7.08(3) | | | SOPAD | 1977Be56/1978Ha50 | HFI 3 397 (77)/HFI 4 219 (78) |
| | 2683 | 295 ns | 11- | 11.98(8) | | | TDPAD | 1992St09 | NP A548 159 (92) |
| | | | | 11.94(11) | | | TDPAD | 1979Ho06 | NP A317 520 (79) |
| | 3478 | 279 ns | 14+ | 14.29(6) | | | TDPAD | 1992St09 | NP A548 159 (92) |
| | | | | 14.31(13) | | | TDPAD | 1979Ho06 | NP A317 520 (79) |
| | 4147 | 225 ns | 17- | 17.36(5) | | | TDPAD | 1992St09 | NP A548 159 (92) |
| | | | | 17.48(12) | | | TDPAD | 1979Ho06 | NP A317 520 (79) |
| | 6577 | 128 ns | (25-) | 16.5(3) | | | TDPAD | 1992St09 | NP A548 159 (92) |
| 88 Ra 215 | 3757+x | 800 ns | (43/2-) | 15.78 (15) | | | SOPAD | 1989Ra17 | ARTIT 52 (85) |
| | | | | 15.61(6) | | | TDPAD | 1998St24 | NP A641 401 (98) |
| | 4567+x | 15 ns | (49/2+) | 18.9(2) | | | TDPAD | 1998St24 | NP A641 401 (98) |
| 88 Ra 216 | 1508 | 0.5 ns | 6+ | g(avge) = 0.1(3) | | | TDPAD | 1990Sc29 | HFI 59 165 (90) |
| | 1711 | 1.7 ns | 8+ | g(avge) = 0.1(3) | | | TDPAD | 1990Sc29 | HFI 59 165 (90) |
| | | | | +3(3) | | | IPAD | | Cf83Meguro 155 (83) |
| | 2026 | 0.6 ns | 10+ | +1(3) | | | TDPAD | 1990Sc29 | HFI 59 165 (90) |
| | 2679 | 0.8 ns | 13- | -1(3) | | | TDPAD | 1990Sc29 | HFI 59 165 (90) |
| | 3763 | 5.3 ns | 19- | +9.3(10) | | | TDPAD | 1990Sc29 | HFI 59 165 (90) |
| | | | | +9.7(6) | | | TDPAD | 1985Ad09 | NP A442 361 (85) |
| | 5170 | 6.6 ns | 25- | +18(5) | | | TDPAD | 1990Sc29 | HFI 59 165 (90) |
| | | | 25-/24+ | g = 0.63(6) | | | TDPAD | 1985Ad09 | NP A442 361 (85) |
| 88 Ra 221 | 0 | 30 s | 5/2- | -0.180(2) | | [213,225Ra] | CFBLS, R | 1988Ah02/1987Ar20 | NP A483 244 (88)/PRL 59 771 (87) |
| | | | | | +1.92(6) | R | R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +1.98(11) st | | CFBLS | 1989Ne03 | ZP D11 105 (89) |
| | | | | | +1.9(2) st | | CFBLS, R | 1988Ah02/1987We03 | NP A483 244 (88)/ZP D4 227 (87) |
| 88 Ra 223 | 0 | 11.44 d | 3/2+ | +0.271(2) | | [213,225Ra] | CFBLS, R | 1988Ah02/1987Ar20 | NP A483 244 (88)/PRL 59 771 (87) |
| | | | | | +1.21(3) | R | R | 2008Py02 | Mol Phys 106 1956 (2008) |
| | | | | | +1.25(7) st | | CFBLS | 1989Ne03 | ZP D11 105 (89) |
| | | | | | +1.19(12) st | | CFBLS, R | 1988Ah02/1987We03 | NP A483 244 (88)/ZP D4 227 (87) |
| | 50 | 0.63 ns | 3/2- | +0.43(6) | | | IPAC | 1970Le13 | PR C2 672 (70) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference | |
|-----------|--------|-----------------------|--------|--|--------------|-------------|-------------|-----------------------------------|-----------------------------------|---------------------------------|
| 88 Ra 224 | 84 | 0.74 ns | 2+ | +0.9(2) | | | IPAC | 1973He13 | ZP 260 57 (73) | |
| 88 Ra 225 | 0 | 14.8 d | 1/2- | -0.7338(15) | | [137Ba] | CFBLS | 1987Ar20/1988Ah02 | PRL 59 771 (87)/NP A483 244 (88) | |
| 88 Ra 227 | 0 | 42.2 m | 3/2+ | -0.404(2) | | [213,225Ra] | CFBLS, R | 1988Ah02/1987Ar20 | NP A483 244 (88)/PRL 59 771 (87) | |
| | | | | | +1.53(6) | R | [223Ra] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +1.58(11) st | | [221,223Ra] | CFBLS | 1989Ne03 | ZP D11 105 (89) |
| | | | | | +1.50(15) st | | | CFBLS, R | 1988Ah02/1987We03 | NP A483 244 (88)/ZP D4 227 (87) |
| 88 Ra 229 | 0 | 4.0 m | 5/2(+) | +0.503(3) | | [213,225Ra] | CFBLS, R | 1988Ah02/1987Ar20 | NP A483 244 (88)/PRL 59 771 (87) | |
| | | | | | +2.99(12) | R | [223Ra] | R | 2013SiZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +3.1(2) st | | [221,223Ra] | CFBLS | 1989Ne03 | ZP D11 105 (89) |
| | | | | | +3.0(3) st | | | CFBLS, R | 1988Ah02/1987We03 | NP A483 244 (88)/ZP D4 227 (87) |
| 89 Ac 215 | 1621 | 30 ns | 17/2- | 7.82(16) | | | TDPAD | 1983De08 | ZP A310 55(83) | |
| | 1796 | 185 ns | 21/2- | 9.7(2) | | | TDPAD | 1983De08 | ZP A310 55(83) | |
| | 2438+x | 335 ns | 29/2+ | 15.1(3) | | | TDPAD | 1983De08 | ZP A310 55(83) | |
| 89 Ac 217 | 0 | 69 ns | 9/2- | +3.83(5) | | | TDPAD | 1985De14 | NP A436 311 (85) | |
| | 2013 | 740 ns | 29/2+ | +5.03(7) | | | TDPAD | 1985De14 | NP A436 311 (85) | |
| 89 Ac 227 | 0 | 21.77 y | 3/2- | +1.1(1) | | | O | 1955Fr26 | PR 98 1514 (55)/PR 111 1747 (58) | |
| | | | | | +1.7(2) | R | O | 1955Fr26 | PR 98 1514 (55)/PR 111 1747 (58) | |
| 90 Th 229 | 0 | 7340 y | 5/2+ | +0.46(4) | | [239Pu] | O | 1974Ge06 | JPPa 35 483 (74) | |
| | | | | | (+)3.11(16) | | O | 2011Ca17 | PRL 106 223001 (2011) | |
| | | | | | +4.3(9) | R | O | 1974Ge06 | JPPa 35 483 (74) | |
| 90 Th 232 | gsband | | | $g(18-24)>g(10-16)$ $g(avge)=0.28(2)$ | | | TF | 1992Ha03 | PRL 48 383 (82) | |
| 91 Pa 228 | 0 | 22 h | (3+) | 3.5(5) | | | NO/S | 1989He07 | NP A493 83 (89) | |
| 91 Pa 230 | 0 | 17.4 d | (2-) | 2.0(2) | | | NO/S | 1989He07 | NP A493 83 (89) | |
| 91 Pa 231 | 0 | 3.3x10 ⁴ y | 3/2- | 2.01(2) | | | ENDOR | 1961Ax01 | PR 121 1630 (61) | |
| | | | | | [-1.72(5)] | estimated | from B(E2) | 1978Fr28 | PL A69 225 (1978) | |
| | 84 | 44 ns | 5/2+ | | +0.7(2) | R | [231Pa] | ME | 1978Fr28 | PL A69 225 (1978) |
| 91 Pa 233 | 0 | 27.0 d | 3/2- | 4.0(7) | | | NO/S | 1989Ra17 | ARISKP (84) | |
| | | | | +3.4(8) | | | AB | 1961Ma42 | NP 23 90 (61) | |
| | | | | | -3.0(4) | R | est efg | 1961Ma42 | NP 23 90 (61) | |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|--------|-----------------------|--------|--|------------------------------------|-------------|----------------|-----------------------------------|------------------------------------|
| 92 U 233 | 0 | 1.6x10 ⁵ y | 5/2+ | μ/μ (ref) = 1.5604(14) 0.59(5) | | [235U] | ABLS | 1990Ga28 | BRASP 54 (5) 13 (90) |
| | | | | | Q/Q(ref) = 0.746(2) 3.663(8) | [235U] | EPR | 1983Lu10 | JP C16 6627 (83) |
| | | | | | 0.64(3) | [235U] | ABLS | 1990Ga28 | BRASP 54 (5) 13 (90) |
| | 40 | 50 ps | 7/2+ | | | | Mu-X | 1984Zu02 | PRL 53 1888 (84) |
| | | | | | | | Mu-X | 1984Zu02 | PRL 53 1888 (84) |
| 92 U 235 | 0 | 7.0x10 ⁸ y | 7/2- | -0.38(3) -0.34(3) -0.46(3) | | | CFBLS | 1983Ni08 | PRL 51 1749 (83) |
| | | | | | | | EPR | 1983Lu10 | JP C16 6627 (83) |
| | | | | | | | ABLDF | ***** | OptL 4 63 (79) |
| | | | | | 4.936(6) | R | Mu-X | 1984Zu02 | PRL 53 1888 (84) |
| | | | | | 4.55(9) | | Mu-X | | JPJS 34 582 (73) |
| | 46 | <60 ps | 9/2- | | 1.87(3) | R | Mu-X | 1984Zu02 | PRL 53 1888 (84) |
| 92 U 238 | gsband | | | g(18-24)>g(10-16) g(avge)=0.37(2) | | | TF | 1992Ha03 | PRL 48 383 (82) |
| 93 Np 237 | 0 | 2.1x10 ⁶ y | 5/2+ | +3.14(4) ~ +2.9 | | | EPR, R | 1970Le29 | JCP 53 809 (70) |
| | | | | | | | ME | 1968St03 | PR 165 1319 (68) |
| | | | | | +3.866(6) | R | Mu-X, Pi-X, ME | 1987De10/1969Du09 | PL 189B 7 (87)/PR 186 1296 (69) |
| | 60 | 68 ns | 5/2- | +1.68(3) +1.95(15) | | [237Np] | ME | 1968Du02/1970Le29 | PR 171 316 (68)/JCP 53 809 (70) |
| | | | | | | | TDPAC | 1967Gu08 | NP A104 588 (67) |
| | | | | | +3.85(4) | R | ME | 1968Pi01/1968St03 | BAPS 13 28 (68)/PR 165 1319 (1968) |
| 93 Np 239 | 75 | 1.40 ns | 5/2- | +2.0(3) | | [237Np 60] | IPAC | 1967Gu08 | NP A104 588 (67) |
| 94 Pu 237 | ~2300 | 85 ns | (3/2) | -0.68(5) | | | TDPAD | 1982Ra04/1982Ra04 | PRL 48 982 (82)/PRL 49 244(E) (82) |
| | ~2600 | 1.1 μ s | | g=+0.14(2) | | | TDPAD | 1974Ka06 | PRL 32 1009 (74) |
| 94 Pu 239 | 0 | 2.4x10 ⁴ y | 1/2+ | +0.203(4) | | | AB/D | 1965Fa02 | PL 16 71 (65) |
| | 8 | 36 ps | 3/2+ | | -2.319(7) | R | Mu-X | 1986Zu01 | PL 167B 383 (86) |
| | 57 | 101 ps | 5/2+ | | -3.345(13) | R | | 1986Zu01 | PL 167B 383 (86) |
| | 76 | 83 ps | 7/2+ | | -3.83(3) | R | | 1986Zu01 | PL 167B 383 (86) |
| | 285 | 1.12 ns | 5/2+ | -1.3(3) | | | IPAC | 1974Pa03 | PR C9 1515 (74) |
| 94 Pu 241 | 0 | 14.4 y | 5/2+ | -0.683(15) | | [239Pu] | O | 1969Ge04 | Phca 42 581 (69) |
| | | | | | +6(2) | R | O | 1964Ch10 | JPPa 25 825 (64) |
| 95 Am 239 | ~2500 | 163 ns | (7/2+) | (+)2.6(2) | | | TDPAD | 1985Ra28 | PL163B 327 (85) |
| 95 Am 241 | 0 | 432.7 y | 5/2- | +1.58(1) | | | ABLS | 1990Iz01 | JRNC 143 93 (90) |

| Nucleus | Ex | T1/2 | I | μ (nm) | Q(b) | [Ref. Std.] | Method | NSR Keynumber | Journal Reference |
|-----------|------|-----------|---------|----------------|-----------|-------------|---------------|------------------------------------|----------------------------------|
| | | | | +1.61(3) | | | AB/D | 1966Ar04 | PR 144 994 (66) |
| | | | | | +3.8(1.2) | | R | 1989De26 | ZP D13 181 (89) |
| | | | | | +3.14(5) | | ABLS | 1990Iz01 | JRNC 143 93 (90) |
| | | | | | +4.2(13) | | R | 1988Be30 | ZP A330 235 (88) |
| | | | | | +4.34(5) | R | Mu-X | 1985Jo04 | PL B161 75 (1985) |
| 95 Am 242 | 0 | 16.0 h | 1- | +0.3879(15) | | | AB/D | 1966Ar04 | PR 144 994 (66) |
| | | | | | -2.44(3) | R | [241Am] R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | -2.4(7) | | [241Am] AB | 1966Ar04/1961Ma27 | PR 144 994 (66)/PR 124 1904 (61) |
| | 49 | 152 y | 5- | +1.00(5) | | | [241Am] ABLFS | 1988Be30 | ZP A330 235 (88) |
| | | | | | +6.7(4) | R | [241Am] R | 2013StZZ | IAEA Rept INDC(NDS)-0650 (2013) |
| | | | | | +7(2) | | [241Am] ABLFS | 1988Be30 | ZP A330 235 (88) |
| | 2200 | 14 ms | unknown | -1.14(8) [I=2] | | | LRSRD | 1996Ba52 | HFI 97/98 535 (96) |
| | | | | -1.14(8) [I=3] | | | LRSRD | 1996Ba52 | HFI 97/98 535 (96) |
| 95 Am 243 | 0 | 7370 y | 5/2- | +1.503(14) | | [241Am] | ABLS | 1990Iz01 | JRNC 143 93 (90) |
| | | | | +1.61(4) | | [241Am] | O | 1966Ar094/1956Ma31 | PR 144 994 (66)/PR 102 1108 (56) |
| | | | | | +2.86(3) | | ABLS | 1990Iz01 | JRNC 143 93 (90) |
| | | | | | +4.32(6) | R | Mu-X | 1985Jo04 | PL B161 75 (1985) |
| | | | | | +4.2(13) | | [241Am] O | 1956Ma31 | PR 102 1108 (56) |
| | 84 | 2.3 ns | 5/2+ | +2.9(2) | | [243Am] | ME | 1986Sa10 | PL 115A 71 (86) |
| | | | | | +4.2(2) | [241Am] | ME | 1976Bo13 | JINC 38 1291 (1976) |
| 96 Cm 243 | 0 | 28.5 y | 5/2+ | 0.40(8) | | [241Am] | EPR | 1973Ab03 | PL 44A 527 (73) |
| 96 Cm 245 | 0 | 8500 y | 7/2+ | 0.5(1) | | [241Am] | EPR | 1970Ab03 | PR B1 3555 (70) |
| 96 Cm 247 | 0 | 1.6x10*7y | 9/2- | 0.36(7) | | [241Am] | EPR | 1973Ab03 | PL 44A 527 (73) |
| 97 Bk 249 | 0 | 320 d | 7/2+ | 2.0(4) | | [241Am] | EPR | 1972Bo67 | PL 42A 93 (72) |
| 99 Es 253 | 0 | 20.4 d | 7/2+ | +4.10(7) | | | AB/D | 1975Go05 | PR A11 499 (75) |
| | | | | | 6.7(8) | R | AB | 1975Go05 | PR A11 499 (75) |
| 99 Es 254 | 0 | 276 d | (7+) | 4.4(4) | | [253Es] | NO | 2009Se09 | PR C79 064322 (09) |
| | 78 | 39.3 h | 2+ | 2.90(7) | | [253Es] | AB | 1975Go05 | PR A11 499 (75) |
| | | | | | 3.7(5) | R | [253Es] AB | 1975Go05 | PR A11 499 (75) |

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