```
Get["QUADRUPOLE"];
(*------------ Nucleus -----------*)
quadrupoleSpin = 1.5;
larmorFrequencyMhz = 105.8731007;


(*----- Quadrupole interaction ----*)
quadrupoleOrder = 2; QCCMHz = 8; η = -1;


(*--- Rotor Euler angles in PAS ---*)
αPR = 30;      βPR = 30;        γPR = 30;


(*---------- Parameters ----------*)
startOperator = 0.4 * Iz;
ωRFkHz = 100;
spinRatekHz = 15;
powderFile = "rep100_simp";
numberOfGammaAngles = 1;
t1 = 20;
Δt = 1;
np = t1 / Δt;


(*--------- Pulse sequence ---------*)
detectelt = {{3, 2}};

fsimulation := (
   acq0;
   For [p = 1, p <= np, p++, {
      pulse[Δt, ωRFkHz];
      acq[p];
    }];
  );


(*---Execute, plot, and save simulation
   in "oneCrystalMAS" file-------------*)
run;
tabgraph["oneCrystalMAS"];


(* ------------------------------- *)
```

```
Rang      t(μs)      intensity
0         0          0.
1         1          0.1909263462
2         2          0.1179498378
3         3          −0.1095760968
4         4          −0.1748410673
5         5          0.05933795078
6         6          0.349769756
7         7          0.3342515848
8         8          −0.2783335973
9         9          −0.4104664941
10        10         −0.04702774168
11        11         0.4073285563
12        12         0.3241038495
13        13         −0.1948624526
14        14         −0.4306262691
15        15         −0.05748909539
16        16         0.4018103486
17        17         0.3128637066
18        18         −0.1999188914
19        19         −0.4520927211
20        20         −0.01315623676
```

```
Rang      t(μs)      intensity
0         0          0.
1         1          0.1909263462
```