

GOSIA2:

- developed to handle the simultaneous analysis of both target and projectile excitation;
- GOSIA2 minimises χ^2 function for the target (this includes calculation of normalisation factors) and then uses the same normalisation factors as a starting point when it starts minimising χ^2 for the projectile;
- limited to one combination of projectile and target;
- two input files have to be prepared: one for target, one for projectile;
- inputs for projectile and target for GOSIA2 are constructed in the analogous way as inputs for standard GOSIA code, however some additional information are required in the header (see next slide);
- all options (e.g OP,INTI OP,POIN OP,MAP, OP,MINI) are available with GOSIA2, however it is recommended to use GOSIA2 just for minimization while other calculations (OP,INTI OP, MAP) perform with standard GOSIA code;
- GOSIA2 code is available at www.slcj.uw.edu.pl/gosia.

GOSIA 2 input



1 ! projectile excitation

OP,FILE

22,3,1

74Zn196Pt_px.out

25,3,1

74Zn196Pt_px_minirest.inp

26,3,1

74Zn196Pt_tx_minirest.inp

14,3,1

dum.14

15,3,1

dum.15

17,3,1

dum.17

18,3,1

dum.18

12,3,1

74Zn196Pt_px.me

32,3,1

74Zn196Pt_tx.me

9,3,1

miniball.det

3,3,1

74Zn196Pt_px.yie

4,3,1

74Zn196Pt_px.cor

7,3,1

74Zn196Pt_px.map

27,3,1

74Zn196Pt_tx.map

23,3,1

74Zn196Pt_px.raw

33,3,1

74Zn196Pt_px.smr

13,3,1

cnor.dat

2 ! target excitation

OP,FILE

22,3,1

74Zn196Pt_tx.out

25,3,1

74Zn196Pt_px_minirest.inp

26,3,1

74Zn196Pt_tx_minirest.inp

14,3,1

dum.14

15,3,1

dum.15

17,3,1

dum.17

18,3,1

dum.18

12,3,1

74Zn196Pt_px.me

32,3,1

74Zn196Pt_tx.me

9,3,1

miniball.det

3,3,1

74Zn196Pt_tx.yie

4,3,1

74Zn196Pt_tx.cor

7,3,1

74Zn196Pt_px.map

27,3,1

74Zn196Pt_tx.map

23,3,1

74Zn196Pt_tx.raw

33,3,1

74Zn196Pt_tx.smr

13,3,1

cnor.dat

Normalization constant



GOSIA 2 input

projectile (⁷⁴Zn) input

target (¹⁹⁶Pt) input

- LEVE
- ME
- EXPT

- LEVE
- ME
- EXPT

investigated nucleus → EXPT
3,30,74
projectile excitation → -78,196,275,-20,3,1,0,0,360,1,1
recoil is detected → -78,196,275,-35,3,1,0,0,360,1,2
-78,196,275,-55,3,1,0,0,360,1,3

EXPT
3,78,196
30,74,500,-20,3,1,0,0,360,1,1
30,74,500,-35,3,1,0,0,360,1,2
30,74,500,-55,3,1,0,0,360,1,3

➤ OP, YIEL
Internal conversion coefficients
for a projectile

➤ OP, YIEL
Internal conversion coefficients
for a target

Always start with projectile:

gosia2 < 74Zn196Pt_px.inp