1st semester progress presentation

Modelling calculations and validation measurements of objects activation in novel research facilities

By : RADI ACHRAF

Ph.D. Student

Under Supervision of : Dr. Zagyvai Péter /
Dr. Szentmiklósi László

Outlines

- Introduction;
- Research Topic;
- Main Results;
- Future Work;
- Conclusions.

Introduction

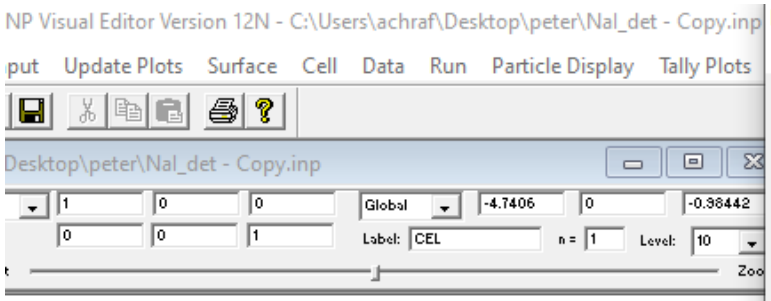
Self Introduction

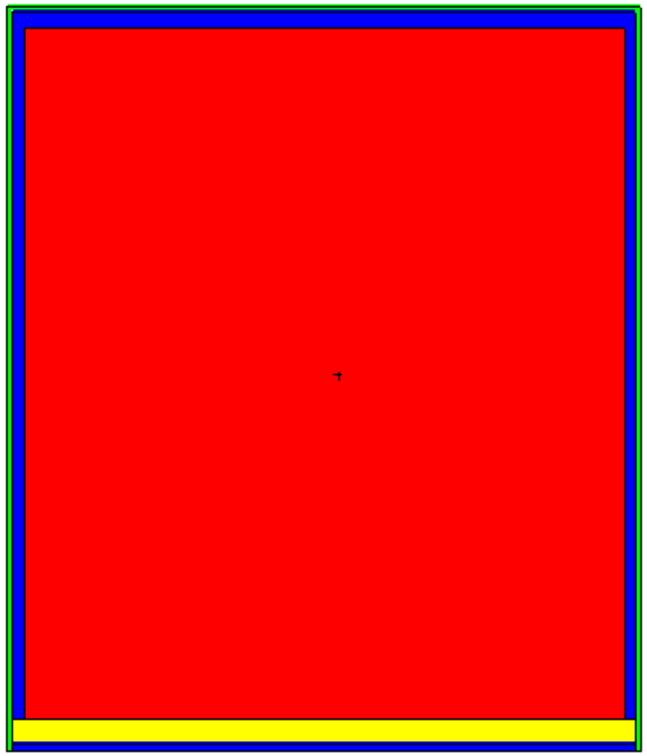
- **Educational background**
  - B.Sc. In Informatics Physics;
  - M.Eng. In Automotive Mechanics & Embedded Electronics;
  - M.Sc. In Nuclear Physics & Radiation Technologies
- **Experience**
  - Postgraduate Researcher at the CDTN in Belo Horizonte, Brazil
- **Earlier Publications**
  - 3 Journal Articles
  - 1 Conf. Paper

Research Topic

- biological shielding are subject to nuclear reactions and generation of often unusual types of radioactivity
- the prediction of these radiation fields are of high importance in radiation protection planning

Main Results





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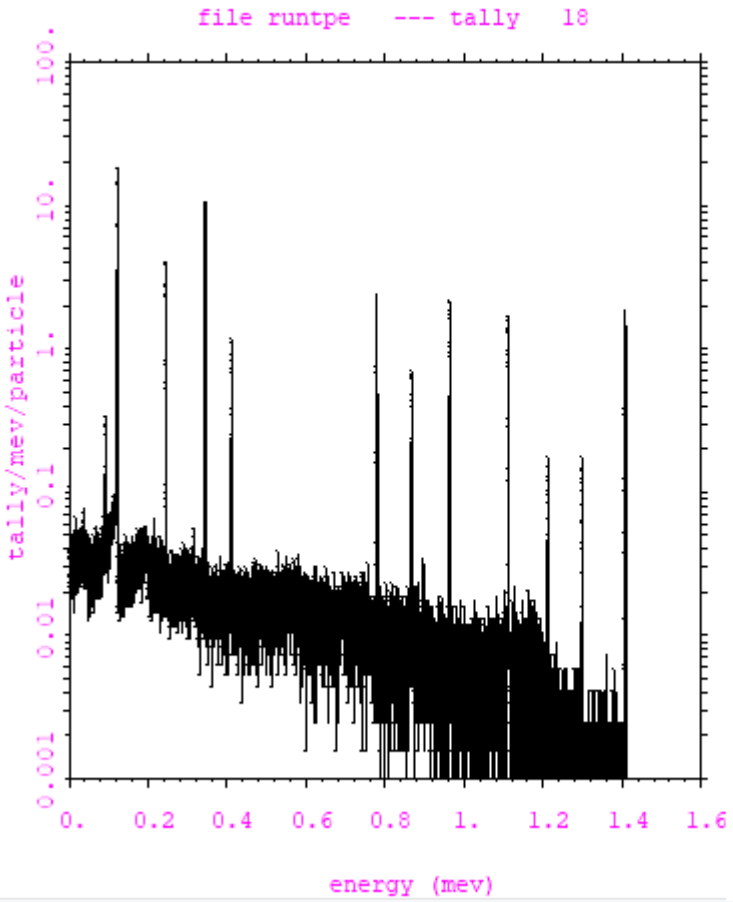
     9        pz       -0.35
    10        so          20

mode  p e
c ----------------------------------------les materiaux-------------------------
m1    11000.04p       -0.1534 $MAT1
      53000.04p        -0.841 22000.04p       -0.0056
m2    12000.04p       -0.6031 $MAT2
      8000.04p        -0.3969
m3    14000.04p       -0.4674 $MAT3
      8000.04p        -0.5326
m4    13000.04p            -1 $MAT4
m5    82000.04p            -1 $MAT5
imp:p  1            5r           0            $ 1, 7
imp:e  1            6r           $ 1, 7
c PHYS P $ il permet de modifier les traitements physiques utilisés
c
c -----------------------------------nbr des gamma emis ---------------------
nps 2000000
c ----------------------------------------la source----------------------------
sdef PAR=2 POS=d1 ERG FPOS d2
si1 L 0 0 17.80
sp1 1
ds2 S 21
c ----------------------------------------les types des sources----------------
c
c SI21 L 0.1217 0.2447 0.3442 0.4111 0.7789 0.8673 0.9640 1.1120 1.2121 1.2991 &
c 1.4080
c SP21 D 0.2867 0.0761 0.2660 0.0312 0.1297 0.0416 0.1460 0.1341 0.0138 0.0161 &
c 0.2080
c
c SI22 L 1.1732 1.3325 $ CO60
```

Main Results



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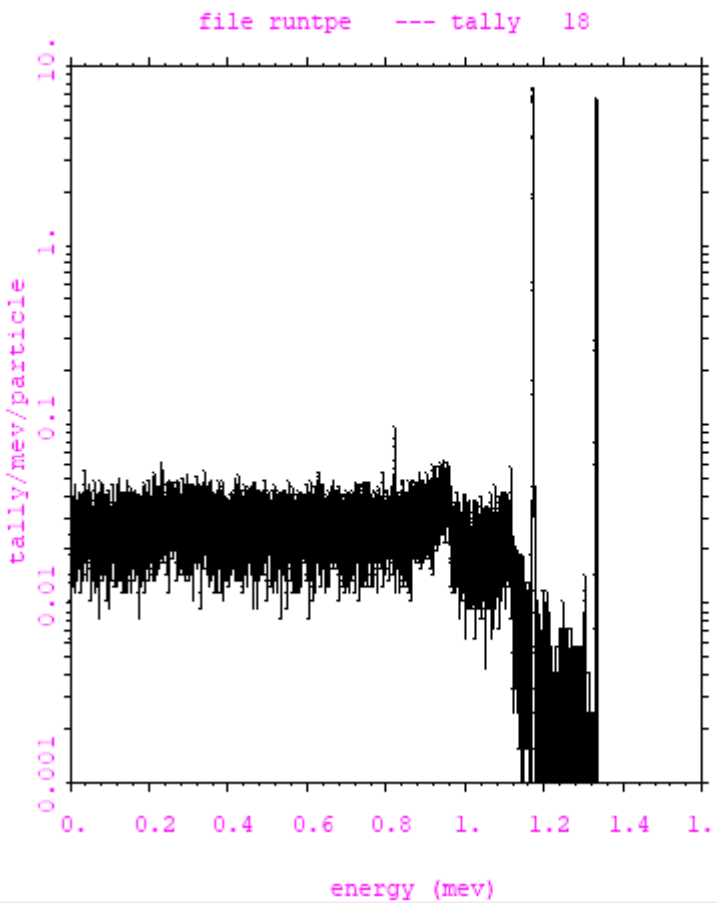
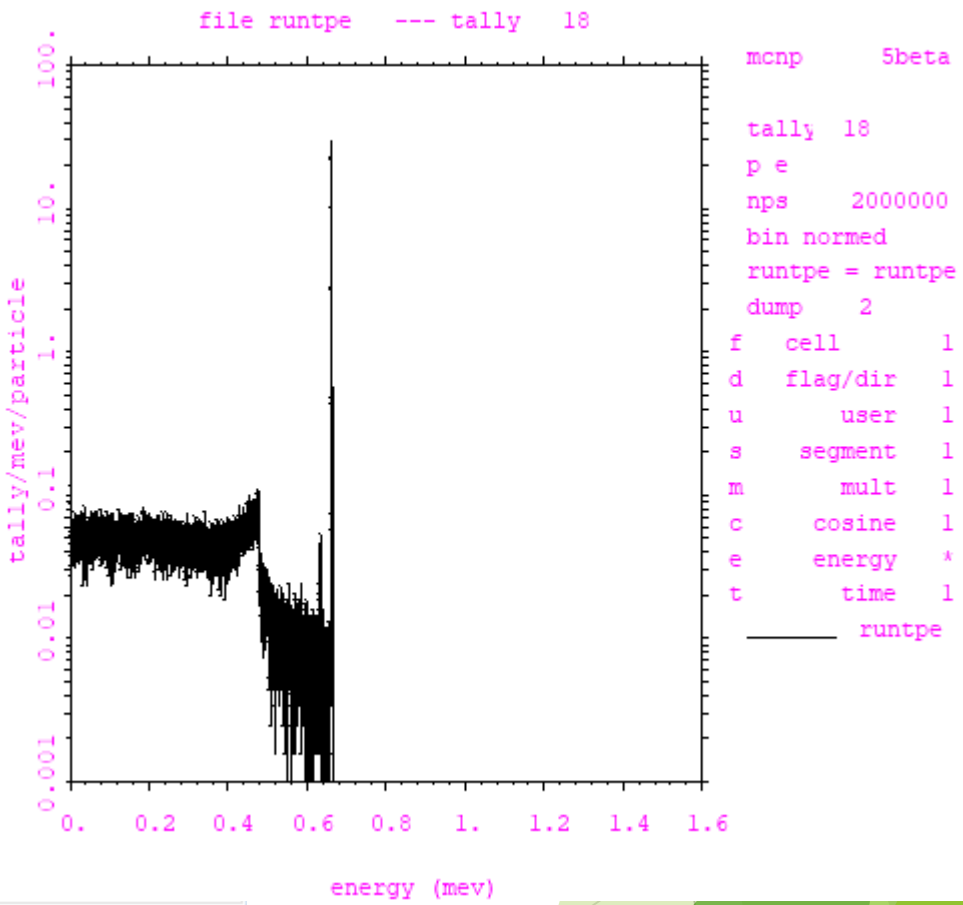


CO-60



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Main Results

- **Completed courses**

Subjects	Lecturer	Grade
Basics of Radiochemistry	**Dr. Wojnárovits László**	5/5
Selected chapters from material testing methods I.: FTIR, SEM, and AFM.	**Dr. Takács Erzsébet** **Dr. Telegdi Judit**	4/5

Conclusions

- ***The literature survey is under way;***
- ***2 courses were completed;***

Future planned work

- ***Expanding knowledge;***
- ***Development of modelling calculations methodology and validation measurements of objects activation;***
- ***Results evaluation;***
- ***3 courses will be taken next semester.***

Thank you for your attention

Ready to answer your questions