Progress Report for NRDC Meeting 2025

ATOMKI

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17-20 June, 2025, Madrid

Staff and changes

- The main organization of HUN-REN Institutes were planned to change again from April, but it was postponed till September.
- In general the staff number is decreasing in every group.
- Regarding the EXFOR work; after my retirement the compilation will be continued by Tamas Tornyi.

Nuclear technology group

- Experimental determination of cross sections for light charged particle induced reaction on various target materials. (targetry, cross sections, and yields)
- Compilation, evaluation of low and medium energy data. (production of recommended cross sections for selected reactions)
- Research of medical radioisotopes (targetry, production, chemistry, low level applications)
- Contribution to international collaborations
- Thin Layer Activation (TLA methodology and applications)

Nuclear Astrophysics group

- The research program is to measure cross section of charged particle induced reaction near threshold and at low energies relevant for various astrophysical processes.

Activity in 2024-25

- Recent measurements of reaction cross sections on Rh+α, Ho+α, Pt+α.
- Evaluations of experimental cross section data of nuclear reactions for production of therapeutic medical isotopes.
- Thin layer activation (TLA) of machine parts for applications (diamond like carbon and steel and different alloy materials)

- EXFOR data compilations
- The new associated articles were compiled,
- Correction of some old entries.

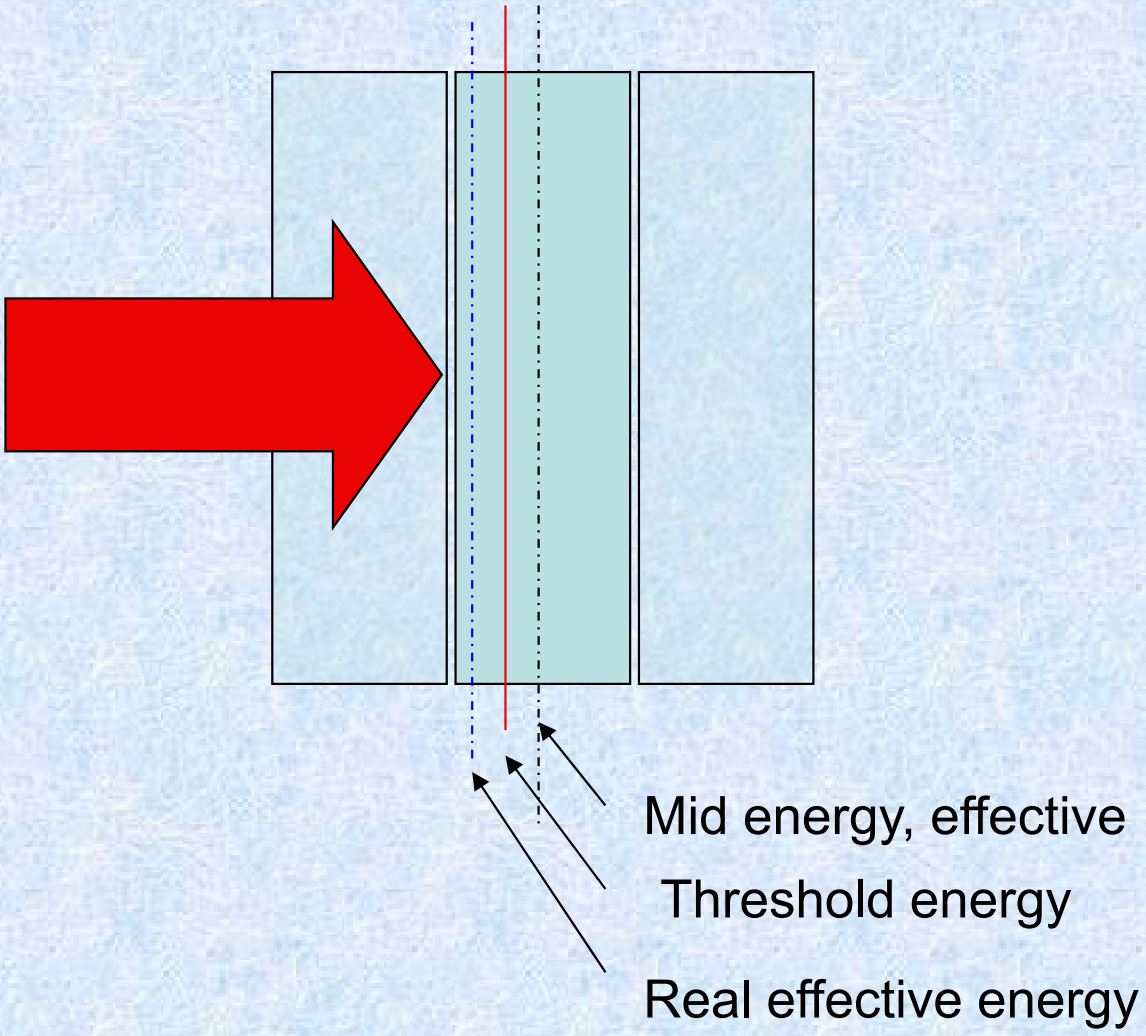
  Entries containing zero data values were resubmitted after correction.

  Entries with data points below threshold energy were revised.

Data point below threshold

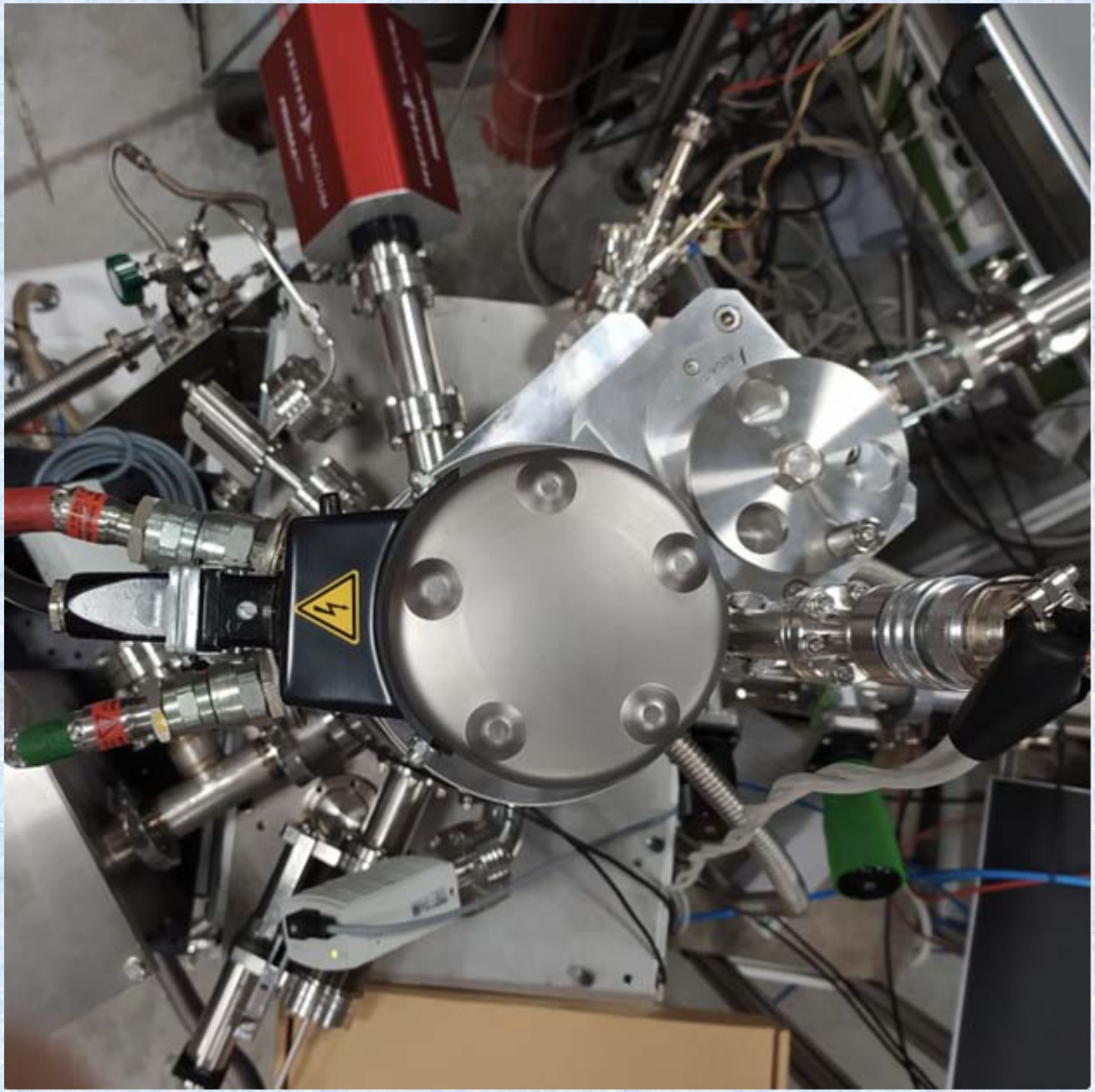
- Contaminated target (oxide layer)
- Common gamma-line from other reaction
- Energy scale calculation

Data point below threshold



Data point below threshold

- Contaminated target (oxide layer)
- Common gamma-line from other reaction
- Energy scale calculation
- Other mistakes



Thank you