

Technical Meeting on (alpha,n) Reaction Nuclear Data Evaluations and Data Needs

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Updates to the NeuCBOT tool for (alpha, n) calculations

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NeuCBOT, the Neutron Calculator Based On TALYS, is a program for calculating (α, n) yields for arbitrary materials given some radioactive contamination. The backbone of the code uses TALYS to calculate (α, n) cross sections, SRIM stopping power calculations, and ENDF nuclear decay data. Recent updates to the code include an updated TALYS cross section database, the option to draw cross sections from JENDL-5 instead, and the ability to calculate ($\alpha, n\gamma$) partial yields. A webapp user interface for NeuCBOT is also under development, planned to be released in the near future. This talk will present an overview of the NeuCBOT software, validation and comparisons with other calculations, and a discussion of recent and upcoming updates.

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