

M4.1 - Data and benchmarking of model for ^{238}U

The data concerning the reactions $^{238}\text{U}(1 \text{ A GeV})+^1\text{H}$, ^2H , Pb are fully analysed and benchmarked to model calculations by the contractors USDC (Participant No. 16) and GSI (Participant No. 15). Thus the milestone 4.1 has been achieved. These results have been partially published in:

- M.V. Ricciardi et al., 'Light nuclides produced in the proton-induced spallation of ^{238}U at 1 GeV', Phys. Rev. C 73, 014607 (2006)
- J. Benlliure et al., 'Transient and quasistationary dissipative effects in the fission flux across the barrier in 1A GeV ^{238}U on deuterium reactions', Phys. Rev. C 74, 014609 (2006)
- E. Casarejos et al., 'Isotopic production cross sections of spallation-evaporation residues from reactions of $^{238}\text{U}(1\text{A GeV})$ with deuterium', Phys. Rev. C 74, 044612 (2006); see *Figure 1*.
- J. Pereira et al., 'Isotopic production cross-sections and recoil velocities of spallation-fission fragments in the reaction $^{238}\text{U}(1 \text{ A GeV})+\text{d}$ ', Phys. Rev. C 75, 014602 (2007)

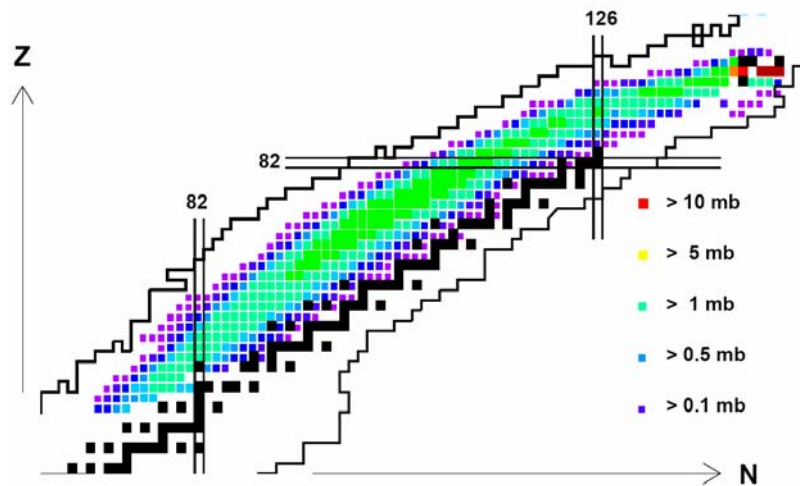


Figure 1: Production cross sections of residues measured in the reaction ^{238}U (1 A GeV) on deuteron [4] plotted on top of a chart of nuclides. The black boxes represent the stable nuclides.

[1] E. Casarejos et al., Phys. Rev. C 74, 044612 (2006)