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## AN EVALUATION OF THE $^{232}\text{Th}$ TOTAL AND CAPTURE CROSS-SECTION FROM A COMBINED ANALYSIS OF TRANSMISSION AND CAPTURE MEASUREMENTS AT GELINA

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The  $^{232}\text{Th}(n,\gamma)$  neutron capture cross-section is of primary importance for different reactor systems, such as HTR and ADS, based on the Thorium - Uranium cycle. An analysis of the nuclear data, reveals that the status of the  $^{232}\text{Th}$  capture data is far from the requested 2 For the analysis of the data in the resolved resonance region the resonance shape analysis codes REFIT and SAMMY were used. A simultaneous analysis of the capture and transmission measurements at different temperatures results in improved resonance parameters. These resonance parameters are interpreted with statistical models, to derive average resonance parameters. We also derive average resonance parameters for the unresolved resonance region from a combined analysis of average capture, total and self-indication measurements. For this analysis the computer codes HARFOR (recently developed at the INRNE Sofia (BG)) and FITACS (developed by Froehner) were used. Both the resonance parameters in the resolved resonance region and the average capture data in the unresolved resonance region result in an improved evaluation of the cross-section data for  $^{232}\text{Th}$  in the resonance region.