Abstract Submitted
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Capture cross sections for 50Ti induced reactions with heavy nuclei[1] WALTER LOVELAND, LARRY YAO, RICARDO YANEZ, VISHAL DESAI, ASHLEY PICA, Oregon State Univ, DANIEL SANTIAGO-GONZALEZ, BIRGER BACK, JOHN GREENE, Argonne National Laboratory — Fission fragment angular distributions have been measured for the interaction of 50Ti with 197Au, 235U and 248Cm. Capture-fission cross sections have been deduced from these angular distributions. These cross sections are compared to previous measurements of capture cross sections for 50Ti reactions and modern theoretical calculations, including phenomenological models such as PACE IV, HIVAP and the Langevin model of Zagrebaev and Greiner. The predictions of these models differ from each other and the data by large factors (2-10x). Quantitative suggestions for the synthesis of heavy nuclei using a 50Ti projectile are made.

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