

Abstract Submitted
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Level densities of residual nuclei from the reaction Li6 on Fe58.¹

BABATUNDE OGinni, STEVEN GRIMES, ALEXANDER VOINOV, ADEREMI ADEKOLA, CARL BRUNE, DON CARTER, ZACK HEINEN, Ohio University, MICHEAL HORNISH, TOM MASSEY, Ohio University, CATALIN MATEI, Oak Ridge National Laboratory, JOHN O'DONNELL, Ohio University — We investigated the level densities of residual nuclei from compound reactions using a Li6 beam. The (Li6,p) and (Li6, α) reactions have been studied at 15MeV for a Fe58 target. Proton and alpha spectra were measured at angles 23.5, 37.7, 68, 98, 142.5 and 157.5 over a range of excitation energies in the residual nuclei. The contribution of the breakup reaction to the residual nuclei was studied from Li6 on Au197 reaction. The evaporated spectra have been compared with theoretical models based on Hauser-Feshbach and Empire codes. We present some of the results obtained.

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Babatunde Oginni
Ohio University

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