Abstract Submitted
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R-matrix Analysis of ^{16}O Compound Nucleus Reactions[1] R.J. DEBOER, University of Notre Dame, R.E. AZUMA, University of Toronto, University of Notre Dame, J. GOERRES, University of Notre Dame, G. IMBRIANI, Universita degli Studi di Napoli "Frederico II" and INFN, P.J. LEBLANC, E. UBERSEDER, M. WIESCHER, University of Notre Dame — A large amount of experimental data exists for reactions which probe the ^{16}O compound nucleus near the alpha and proton separation energies, the energy regimes most important for nuclear astrophysics. Difficulties and inconsistencies in R-matrix fits of the individual reactions prompt a more complete simultaneous multiple entrance/exit channel analysis of all available reaction channels with the specific aim of attaining a consistent fitting for the $^{15}\mathrm{N}(p,\gamma_0)^{16}\mathrm{O}$ cross section data.

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