

Abstract Submitted  
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**Knockout, Transfer and Spectroscopic Factors** KIRBY KEMPER, Florida State University, NICHOLAS KEELEY, The Andrzej Soltan Institute for Nuclear Studies, KRZYSZTOF RUSEK, Heavy Ion Laboratory, University of Warsaw — As derived quantities rather than observables, spectroscopic factors extracted from fits to data are model dependent. The main source of uncertainty is the choice of binding potential, but other factors such as adequate modeling of the reaction mechanism, the Perey effect, choice of distorting nuclear potentials etc. can also play a significant role. Recently, there has been some discussion of apparent discrepancies in spectroscopic factors derived from knockout reactions compared to those obtained from low-energy direct reactions. It should be possible to reconcile these discrepancies and we explore this prospect by attempting to describe the  $^{10}\text{Be}(d,t)^9\text{Be}$  data of Nucl. Phys. **A157**, 305 (1970) using the  $^{10}\text{Be}/^9\text{Be}$  form factors from a recent knockout study, Phys. Rev. Lett. **106**, 162502 (2011). The influence of such factors as choice of distorting potentials and multi-step reactions paths will be explored.

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