Abstract Submitted
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Transfer Reactions and the Dispersive Optical Model[1] S.J. WALDECKER, Washington University in St. Louis, N.B. NGUYEN, F.M. NUÑES, Michigan State University, R.J. CHARITY, W.H. DICKHOFF, Washington University in St. Louis — The dispersive optical model is applied to transfer reactions. A systematic study of (d,p) reactions on closed shell nuclei using the finite-range adiabatic reaction model is performed at several beam energies and results are compared to data as well as to the results from using the global optical potential CH89. Overall, the dispersive optical model is able to describe the angular distributions as well or better than the CH89 parametrization. In particular, the dispersive optical-model provides a much better extrapolation for the (d,p) reaction on ^{132}Sn. Since the dispersive optical-model incorporates negative energies, it also constrains the overlap function. Spectroscopic factors extracted using the dispersive optical-model are generally lower than those using standard parameters, and more in line with results obtained from (e,e'p) measurements.

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Seth Waldecker
Washington University in St. Louis

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