Dispersive Optical Model and Isospin S.J. WALDECKER, W.H. DICKHOFF, Washington University in St. Louis — Dispersive optical model (DOM) analyses successfully describe scattering and bound-state data for ^{40}Ca, ^{42}Ca, ^{44}Ca, and ^{48}Ca.[1,2] The global fits agree very well with the data, but the extent to which these DOM calculations can be extrapolated to systems not included in the fit is not sufficiently constrained for neutrons. Bound-state data for Ca isotopes show clear trends when analyzed as a function of isospin, suggesting that isospin is an important ingredient to include in any extrapolation. The effects of including explicit isospin dependence in the DOM potentials are explored in this contribution.

[1]R.J. Charity, L.G. Sobotka, and W.H. Dickhoff, Phys. Rev. Lett. 97,162503 (2006)
[2]R.J. Charity, J.M. Mueller, L.G. Sobotka, and W.H. Dickhoff, Phys. Rev. C 76, 044314 (2007)

Seth Waldecker
Washington University in St. Louis

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