

Abstract Submitted
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Spectroscopic Factors From the Single Neutron Pickup Reaction $^{64}\text{Zn}(\vec{d},t)$ KYLE LEACH, P.E. GARRETT, G.A. DEMAND, P. FINLAY, K.L. GREEN, A.A. PHILLIPS, C.S. SUMITHRARACHCHI, C.E. SVENSSON, S. TRIAMBAK, University of Guelph, Canada, G.C. BALL, TRIUMF, Vancouver, Canada, T. FAESTERMANN, R. KRÜCKEN, H.-F. WIRTH, Technische Universität München, Germany, R. HERTEN-BERGER, Ludwig-Maximilian-Universität München, Germany — A great deal of attention has recently been paid towards high precision superallowed β -decay $\mathcal{F}t$ values. With the availability of extremely high precision ($< 0.1\%$) experimental data, the precision on $\mathcal{F}t$ is now limited by the $\sim 1\%$ theoretical corrections.¹ This limitation is most evident in heavier superallowed nuclei (e.g. ^{62}Ga) where the isospin-symmetry-breaking correction calculations become more difficult due to the truncated model space. Experimental data is needed to help constrain input parameters for these calculations, and thus experimental spectroscopic factors for these nuclei are important. Preliminary results from the single-nucleon-transfer reaction $^{64}\text{Zn}(\vec{d},t)^{63}\text{Zn}$ will be presented, and the implications for calculations of isospin-symmetry breaking in the superallowed β^+ decay of ^{62}Ga will be discussed.

¹I.S. Towner and J.C. Hardy, Phys. Rev. C **77**, 025501 (2008).

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