

Abstract Submitted
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**Coulomb Excitation of $^{124,126,128}\text{Sn}(Z=50)$ on ^{12}C , ^{27}Al , and ^{50}Ti :
Approaching the $N=82$ Shell Closure via $N=74,76,78$ ¹** J.M. ALLMOND,
D.C. RADFORD, C. BAKTASH, J.C. BATCHELDER, A. GALINDO-URIBARRI,
C.J. GROSS, P.A. HAUSLADEN, K. LAGERGREN, Y. LAROCHELLE, E.
PADILLA-RODAL, C.-H. YU, Physics Division, Oak Ridge National Laboratory —
The determination of $\langle 0_1 || E2 || 2_1 \rangle$ matrix elements from the Coulomb excitation
of $^{124,126,128}\text{Sn}(Z=50)$ on a ^{12}C target is presented. Furthermore, preliminary results
are presented for the Coulomb excitation of $^{124,126,128}\text{Sn}$ on ^{27}Al and ^{50}Ti targets,
which, combined with the results from the ^{12}C target, can provide an upper/lower
limit for the 2_1^+ static quadrupole moments, $Q(2_1) = 0.758 \times \langle 2_1 || E2 || 2_1 \rangle$ (expected
to be ≈ 0). Indeed, accurate knowledge of 2_1^+ systematics, i.e., $E(2_1)$, $\langle 0_1 || E2 || 2_1 \rangle$,
and $\langle 2_1 || E2 || 2_1 \rangle$, are essential for testing consistency in models (e.g., deformation)
at and near the neutron-rich $N=82$ shell closure.

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J.M. Allmond
Physics Division, Oak Ridge National Laboratory, Oak Ridge, Tn 37831

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