

Abstract Submitted
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γ -rays following the β -decay of ^{62}Ga and the strength of the superallowed transition J.R. LESLIE, I.S. TOWNER, Queen's University, C. ANDREOIU, P.E. GARRETT, B.H. HYLAND, A.A. PHILLIPS, M.A. SCHUMAKER, C.E. SVENSSON, J.J. VALIENTE-DOBIN, University of Guelph, A. ANDREYEV, G.C. BALL, P. BRICAULT, M. DOMBSKY, G. HACKMAN, D. MELCONIAN, A.C. MORTON, C.J. PEARSON, TRIUMF, D. CROSS, Simon Fraser University, J.A. BECKER, LLNL — As part of an ongoing study of superallowed β -decay at TRIUMF, we have measured the intensity and energy of γ - rays following the β -decay of ^{62}Ga . During a beam on period of 10 s., a total of approximately 3×10^8 atoms of ^{62}Ga , from the Resonant Laser Ionisation Source at the ISAC facility, was implanted into a collector tape at the centre of the SCEPTAR/ 8π arrays. Before and after the beam on period, 2 s. of data were taken to assess backgrounds and the build up of long-lived activities. After each counting cycle the tape was moved in order to transport the implanted atoms to a shielded location. Substantial reduction in the Bremsstrahlung induced background were achieved by vetoing events in which the β -rays and γ -rays were observed in corresponding detectors. Singles β and coincident β - γ events were recorded. The intensities of β -rays feeding of low lying states in ^{62}Zn and a γ -decay scheme of ^{62}Zn are proposed. The data are compared to shell model predictions of energies and transition strengths. Predictions of charge dependent effects are tested against the deduced superallowed transition probability.

J.R. Leslie
Queen's University

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