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Study of the β -decay of $^{11}{\rm Li}$ at ISAC/TRIUMF FRED SARAZIN, C.M. MATTOON, C. ANDREOIU, A. ANDREYEV, R.A.E. AUSTIN, G.C. BALL, R.S. CHAKRAWARTHY, D. CROSS, E.S. CUNNINGHAM, J. DAOUD, P.E. GARRETT, G.F. GRINYER, G. HACKMAN, D. MELCONIAN, C. MORTON, C. PEARSON, J. RESSLER, J. SCHWARTZENBERG, M.B. SMITH, C.E. SVENSSON, Colorado School of Mines — The β -decay of $^{11}{\rm Li}$ was investigated using the 8π β -decay spectrometer, an array of 20 Compton-suppressed HPGe detectors and 20 plastic scintillators for β -particle detection. Doppler-broadened line shapes resulting from the decay of excited states of $^{10}{\rm Be}$ populated by β -delayed neutron emission are analyzed using Monte Carlo simulations. New β -delayed neutron decay branches are shown to contribute to the complex decay of $^{11}{\rm Li}$. Results, comparison with previous works, as well as implications for the beta-decay of the $^{11}{\rm Li}$ halo neutrons will be discussed. This work is partially supported by the US Department of Energy through Grant / Contract No. DE-FG03-93ER40789.

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