

Abstract Submitted
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A new look at the β -decay of ^{11}Li ¹ FRED SARAZIN, CALEB M. MATTOON, Colorado School of Mines, 8PI COLLABORATION — Following the development of a more intense ^{11}Li beam at ISAC/TRIUMF, the study of the γ spectrum, following the β -decay of ^{11}Li , was re-investigated with the 8pi spectrometer, an array of 20 Compton-suppressed HPGe detectors. The addition of an inner array of plastic scintillators allowed data-taking in β - γ coincidences, which significantly improved the signal to background ratio. Since most of the decay strength is observed to proceed through β -delayed one-neutron emission, the γ -spectrum is dominated by the decay of bound excited states of ^{10}Be . These transitions exhibit characteristic Doppler-broadened lineshapes, due to the recoiling effect induced by the neutron emission. Analysis of these lineshapes and results from the new experiment will be presented.

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