

BETA-DELAYED NEUTRON EMISSION IN THE DECAY OF ^8He

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Abstract

The decay of ^8He is complex, including beta-delayed alpha-particles, tritons and neutrons. Even a decay channel with two neutrons is allowed though not yet seen. An experiment has been performed at ISOLDE, CERN, with the purpose of revealing more information of the decay channel $^8\text{He} \rightarrow ^7\text{Li} + n$. At the experiment neutrons were detected with two ^3He -spectrometers. The beta-delayed neutron spectrum has been studied before [1], since then new knowledge about the structure in the response function of the spectrometer has been made [2]. We will at this work-shop present neutron spectrum with good statistics, where the analysis is based on the response function in ref [2].

[1] T. Bjørnstad et al., Nucl. Phys. A366 (1981) 461

[2] K.H.Beimer et al., Nucl. Instr. Meth. A245 (1986) 402