# $^{144}$Er

In the 2003 paper "Fine structure in proton emission from $^{145}$Tm discovered with digital signal processing", first evidence of $^{144}$Er was reported by Karny et al. (2003Ka04). A 315 MeV $^{58}$Ni beam bombarded a $^{92}$Mo target forming $^{145}$Tm which populated $^{144}$Er by proton emission. Recoil products were separated with the Oak Ridge Recoil Mass Separator RMS and implanted in a double-sided silicon strip detector which also recorded the proton decays. "Since the daughter activity is an even-even nucleus, $^{144}$Er, the interpretation of the 1.73 and 1.40 MeV lines as transitions to the $I^{\pi} = 0^{+}$ ground state and to the previously unknown $I^{\pi} = 2^{+}$ excited state at 0.33(1) MeV is obvious." An earlier report of the observation of $^{144}$Er was only published in a conference proceeding (2000So11).

Adapted from reference (2013Fr10)


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