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## Search for E0 transitions in even-even 54Cr and odd-odd 54Mn nuclei

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Between 40Ca and 56Ni, the most dominant physical feature emerging is super-deformation [1] and the open question that is yet to be answered with experimental evidence is, does the super-deformation follow through to 56Ni. There are also strong evidence from theoretical predictions that shape coexistence exist along the chain of N = 28 isotones, amid 56Ni and 48Ca [2, 3] as it is believed to exist throughout the nuclear chart [4]. Nevertheless, there is no experimental data available on E0 transitions in 50Ti and in neighbouring 52Ti, 54Cr, and 54Mn. In this study, the E0 strength which carry vital information about the nuclear structure have been determined in the and transitions of 54Mn for the first time, utilising pair and conversion-electron spectroscopy.

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