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Study of low-medium spin states in ¹⁵⁶Er

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This work aims to shed light on the low to medium spin states of ¹⁵⁶Er by analysing coincidence relationships following the ¹⁴⁷Sm(¹²C, 3n)¹⁵⁶Er reaction at 65 MeV. This experiment was performed using the AFRODITE array of iThemba LABS. A level scheme has subsequently been built using this information and a total number of 9 bands has been observed. The current work has not only observed almost all the rotational bands reported by the previous work but also suggests some changes. The implications of the new findings are therefore discussed.

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