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IBA-1 Calculations of E2/M1 Mixing Ratios and Quadrupole Moments in  $^{154}\text{Gd}$



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**Abstract:** In this study the Interacting Boson Approximation is applied in its basic form (IBA-1) to the calculation of gamma-ray E2/M1 multipole mixing ratios and quadrupole moments [ $Q(2^+)$ ] of electromagnetic transitions in  $^{154}\text{Gd}$ . The numerical results obtained for  $^{154}\text{Gd}$  are in reasonably good agreement with previous experimental and theoretical values.

**Key Words:** IBA-1, deformation parameter, quadrupole moment, mixing ratios.

 [Keywords](#)  
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