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### Energy levels, B(E2) and Potential energy surface for <sup>130-136</sup>Nd Isotopes

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**Abstract :** In this study the spectra, B(E2) and effort power surface are studied in the Model of (IBM-1). It is found that <sup>130-134</sup>Nd are in the region SU(3)-U(5). For <sup>136</sup>Nd in the region of SU(3)-O(6). The values of B(E2) decreased when the neutron number increases, the branching ratios proved the isotopes in them transition regions. (P.E.S) it demonstrates this isotopes have high deformation.

**Keywords :** IBM-1, B(E2), Potential Energy Surface, Nuclear Structure, Nd, Isotopes.

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