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ARTICLE

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AN INVESTIGATION ON NEUTRON SKIN THICKNESS OF FINITE NUCLEI BY STUDYING DIPOLE POLARIZABILITY USING FINITE RANGE EFFECTIVE INTERACTION

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The dipole polarizability 'α_D, is analyzed by using Droplet Model (DM) in finite range effective interaction for two different splitting of exchange strength parameters $E_{ex}^{l} = E_{ex}/2$ and $E_{ex}^{ul} = E_{ex}/2$ where E_{ex} is the exchange parameter of the interaction. The role of density derivatives of symmetry energy and neutron skin thickness on α_D is studied and the value of α_D is found to be 24.10 fm^{3}and 26.43 fm^3 for E_{ex}^{l} and E_{ex}^{ul} respectively.