

BINDING ENERGY OF ^{19}O AND ^{21}O ISOTOPES IN RELATIVISTIC SYSTEM

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We have studied some static properties of the ^{19}O and ^{21}O in relativistic and non-relativistic shell model. The nuclei ^{19}O and ^{21}O can be modeled as a doubly-magic ^{16}O core, with additional nucleons in the $1d_{5/2}$ level. We have solved analytically Dirac equation by using Parametric Nikiforov-Uvarov method, in order to calculate the energy levels of the ground state and excited state for these nuclei. Finally we calculated the charge radius for these nuclei. The obtained results have been compared with non-relativistic approach and experiment.