

Nuclear Isomers: Some New Features

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A comprehensive compilation of the Nuclear Isomers has been carried out for the whole Nuclear Chart. Total number of Nuclear Isomers is 2448 with lower limit of 10 ns on half-life. We have prepared an atlas for them with their excitation energy, half-life, spin, parity, multi-polarity and their decay modes. Many systematic features for the various properties have been studied so far. Some of them are quite interesting and reveal many new aspects of nuclear structure in meta-stable state of nuclei. The Fission Isomers are classified separately in the actinides and beyond region. They are 43 in number with same lower limit on half-life. The Isomeric states having half-life greater than to their respective ground states are also separated and discussed.