

Double beta decay experiments: status and prospects

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Neutrinos are the only fundamental fermions without electric charge. Consequently, they might be identical to their own anti-particles (Majorana type). In this case neutrinoless double beta decay should exist where a nucleus (A,Z) decays to $(A,Z+2)+2e^-$, i.e., Lepton number is not conserved. There are a variety of experiments searching for this decay using very different experimental concepts and isotopes. The talk reviews the motivation and the status of the ongoing and planned experiments.

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