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RECODE program for reactor neutrino CEvNS detection with PPC Germanium detector

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Coherent Elastic Neutrino-Nucleus Scattering, also known as CEvNS, describes the physical process of atomic nucleus scattering with neutrino as a whole, and the scattering cross section is approximately proportional to the square of atomic nucleus neutron number. The research on CEvNS has important scientific significance and application value. The RECODE project (Reactor neutrino COherent scanning Detection Experiment) is a recently proposed experimental plan, which uses two sets of high-purity germanium arrays to jointly measure and accurately measure the CEvNS process of reactor neutrino. The high-purity germanium technology used comes from the PPC germanium detector technology developed by CDEX in dark matter experiments. The PPCGe has significant advantages such as low energy threshold, low background, and good long-term stability et. al., which key performance parameters have been confirmed and tested in CDEX's long-term dark matter experiments. This talk will introduce the RECODE experimental plan and expected results.

Submitted on behalf of a Collaboration?

Yes

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