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Coherent Neutrino-Nucleus Elastic Scattering at Reactor with TEXONO Experiment

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The low-energy coherent neutrino nucleus elastic scattering (νA_{el}) is being studied in a number of experimental programs around the world. As part of TEXONO's neutrino research program at Kuo-Sheng nuclear power plant, state-of-art high purity point-contact Germanium detectors with $\mathcal{O}(100\text{ eV})$ threshold are utilized to study such low-energy neutrino interactions at the complete coherency regime. This presentation will provide an overview of current νA_{el} activities and recent results at the TEXONO experiment. We will also discuss the quantitative studies of quantum-mechanical coherency effects in νA_{el} .

Submitted on behalf of a Collaboration?

Yes

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