

Search for coherent elastic neutrino-nucleus scattering in the vGeN experiment.

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The vGeN experiment aims to search for coherent elastic neutrino-nucleus scattering (CEvNS) and to study the neutrino properties. A low-background 1.4 kg HPGe detector with energy threshold less than 300 eV is used to detect CEvNS. The vGeN is located about 11 meters from the center of the 3.1 GWth reactor #3 of Kalinin NPP, which is leading to an antineutrino flux of $(3.9-4.4) \cdot 10^{13} \text{ cm}^{-2} \text{ s}^{-1}$. The reactor and surrounding materials provide about 50 m.w.e. shielding from cosmic rays. The intense antineutrino flux and high overburden gives a possibility to detect coherent elastic scattering of reactor antineutrinos on Ge nuclei in the fully coherence regime, as well as to study other properties of neutrinos. The current status of the experiment will be presented.

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