

Reactorogenic neutrino detection using liquid neon

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Reactor neutrinos are useful for both applied and fundamental measurements. To date, these neutrinos have only been observed via charged current interactions requiring large liquid or solid scintillators. With the advent of CEvNS, new opportunities to monitor the status of reactors which requires smaller detectors are an appealing possibility to future integrated non-proliferation technology. This work explores the feasibility of using liquid neon rather than liquid argon in a single-phase scintillation detector for this purpose.

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