



Contribution ID: 360

Type: **Poster**

Development of novel scintillator for the PROSPECT Short-Baseline Neutrino Experiment

Segmented antineutrino detectors placed near a compact research reactor provide an excellent opportunity to probe short-baseline neutrino oscillations and precisely measure the reactor antineutrino spectrum. Close proximity to a reactor combined with minimal overburden yield a high background environment that must be managed through shielding and detector technology.

This poster will focus on the development of novel loaded scintillator for PROSPECT capable of neutron/gamma pulse shape discrimination and neutron capture tagging.

These enhancements improve the ability to identify neutrino inverse-beta decays and reject background events in analysis.

Results from these efforts will be covered along with their implications for an oscillation search and a precision spectrum measurement.

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Track Classification: Reactor Neutrino Oscillations