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Background studies within the SoLid experiment

The SoLid (Short baseline Oscillation search using a Lithium-6 detector) experiment is devoted to study neutrino oscillations in order to investigate the observed deficit in the flux of antineutrinos measured by several neutrino experiment located at short-distance from the reactor compared to theoretical calculations. SoLid uses a novel technology which consists in a highly segmented plastic scintillation detector coated with Lithium-6 to provide a measurement of the rate of electron antineutrinos at very short baseline distances (6.4 meters) from the BR2 research reactor core in SCK-CEN at Mol (Belgium). This poster provides a complete overview about the background that affects the detector highlighting what is the standard background (mainly correlated and accidental background) for this kind of experiments.

Mini-abstract

Background studies within the SoLid experiment.

Experiment/Collaboration

SoLid

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