

KamLAND-PICO Dark Matter Search Project

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The high sensitivity KamLAND-PICO project to search for WIMPS dark matter is proposed. A highly radiopure NaI(Tl) scintillator has been developed for the WIMPs search. The aim of this project is to prove/disprove the annual modulation reported by DAMA and to investigate further the WIMPs in the much lower cross section region.

KamLAND acts as a high veto detector for PICO-LON NaI(Tl) detector. Finally 1 ton of NaI(Tl) will be installed into KamLAND to study the annual modulation with the sensitivity of 10^{-8} pb for spin-independent WIMPs.

In the present workshop, the recent progress of the NaI(Tl) scintillator development and the expected sensitivity will be discussed.

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