

Abstract Submitted
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Study of dark matter and neutrino by means of thin NaI(Tl)¹

KATSUYA HARADA, The University of Tokushima, PICO-LON COLLABORATION, MOON COLLABORATION — The MOON/PICO-LON consists of two thin NaI(Tl) crystal is applied to search for $0\nu\beta\beta$ decay and WIMPs dark matter. The MOON/PICOLON has great advantages to both $0\nu\beta\beta$ decay and WIMPs dark matter;

1. 100% of natural abundance of odd A nuclei (^{23}Na and ^{127}I).
2. NaI(Tl) has the good energy resolution.
3. ^{127}I has a low energy excited state at 57.6keV which is excited by spin-dependent interaction.

The detector of two thin NaI(Tl) crystal was tested in Oto cosmo laboratory. The good energy resolution and the low back ground data will be reported.

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