

Abstract Submitted
for the HAW09 Meeting of
The American Physical Society

Search for WIMPs dark matter by means of thin NaI(Tl) scintillator KEN-ICHI FUSHIMI¹, The Univ. of Tokushima, PICO-LON TEAM — The segmented detector system made of inorganic crystal is applied to search for WIMPs dark matter. The NaI(Tl) crystal has great advantages to search for WIMPs dark matter;.

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

The prototype detector of thin NaI(Tl) was tested. The energy resolution and the low energy threshold will be reported. The future prospect of WIMPs dark matter search by various detector will be discussed.

¹JPS:27847D

Ken-Ichi Fushimi
The Univ. of Tokushima

Date submitted: 28 Jun 2009

Electronic form version 1.4