Contribution ID: 72

## A study of cryogenic Li2MoO4 phonon-scintillation detectors for AMoRE-II

We studied phonon and scintillation properties of Li2MoO4 crystals for the AMoRE-II (Advance Molybdenum based Rare process Experiment - phase II), an experiment aiming at detecting neutrinoless double beta decay of 100Mo. e Li2MoO4 is one of promising crystal candidates among molybdate crystals containing Mo element for a simultaneous detection of heat and light signals at mK temperatures. It is advantageous to use the crystal in terms of crystal growth and internal background control. We tested Li2MoO4 crystals in a low-temperature detection system for high resolution phonon-scintillation measurement based on a metallic magnetic calorimeter (MMC) readout technology. We will present tests results of the Li2MoO4 crystals as target material and discuss a feasibility for the large scale experiment, AMoRE-II, with about 200 kg of molybdate crystals.

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