

Results of the first NaI scintillating calorimeter prototypes by COSINUS

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The COSINUS (Cryogenic Observatory for Signals seen in Next-generation Underground Searches) was brought to life to give new insight to the long-standing dark matter claim of the DAMA/LIBRA experiment. To be immune to potential target-material dependencies also COSINUS, as DAMA-LIBRA, uses NaI as target material. Our detectors are cryogenic calorimeters with phonon-light-readout - unique in the field of NaI-based dark matter searches. This experimental approach provides particle discrimination on an event-by-event basis and, therefore, even with a moderate exposure COSINUS will be able to reject or confirm a dark matter - nucleus interaction as the origin of the DAMA/LIBRA signal.

In this talk we present results of the first COSINUS prototypes which, to our knowledge, are the first measurements of NaI crystals as cryogenic calorimeter.

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