

Current status of the Dark Matter search experiment CRESST

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CRESST is a cryogenic direct Dark Matter search experiment based on phonon-light technique. It is aiming for the detection of weakly interacting massive particles (WIMPs) via their elastic scattering off nuclei in CaWO₄ target crystals.

Significant improvements have been achieved with respect to previous measuring campaigns in terms of the intrinsic radiopurity of CaWO₄ crystals and the rejection of recoil events from alpha decays near surfaces.

In this contribution, the related changes in the detector design will be discussed. Based on the first ~30 kg-live-days of data acquired by a single CaWO₄ detector of the new design, we will present limits for the spin-independent WIMP-nucleon cross section, in particular down to WIMP masses of 1 GeV.

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