

Low-mass WIMP searches with the EDELWEISS experiment

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The EDELWEISS collaboration is performing a direct search for WIMP dark matter using an array of up to twenty-four 860g cryogenic germanium detectors equipped with a full charge and thermal signal readout. The experiment is located in the ultra-low radioactivity background of the Modane underground laboratory, in the French-Italian Frejus tunnel. We present the analysis of data obtained in extended data taking periods. WIMP limits, background rejection factors and measurements of cosmogenic activation are used to assess the performance of the third generation of EDELWEISS detectors in view of the search for WIMPs in the mass range from 1 to 20 GeV/c². The developments in progress to pursue this goal in the coming years are also presented.

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