

First results from subkeV energy threshold spherical gaseous detector for light Dark Matter identification

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The main characteristics of a new concept of spherical gaseous detector will be first given. The very low energy threshold of such detector has led to investigations of its potential performance for dark matter searches, in particular low mass WIMP's and ALP's. Original methods for calibration and background rejection will be described. Preliminary results obtained with a low radioactivity prototype operated in Laboratoire Souterrain de Modane and typical expected sensitivities will also be shown, and other applications briefly discussed.

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