



Contribution ID : 204

Type : Oral

Search for neutrinoless double beta decay with CUORICINO and perspectives for CUORE

Thursday, 5 July 2007 12:05 (0:12)

Abstract content

CUORICINO is a cryogenic detector running in Gran Sasso National Laboratories, Italy since 2003. With its 40.7 kg of $^{130}\text{TeO}_2$ mass, in the form of an array of 62 crystals it has proved the feasibility of CUORE experiment, whose aim is to be sensitive to value of the effective neutrino mass as low as few tens of meV. It has moreover set the currently lower limit on the lifetime of ^{130}Te for neutrinoless double beta decay: we will report on the up-to date CUORICINO results and discuss the perspectives for CUORE.

If this papers is presented for a collaboration, please specify the collaboration

CUORE collaboration

Summary

Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olive, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 4 (HE part 1), pages 775-778

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Session Classification : HE 3.4

Track Classification : HE.3.4