

Status of NEXT-100

Tuesday, 10 September 2013 17:00 (20 minutes)

NEXT-100 is an experiment to search for neutrinoless double beta decay using 100-150 kg of Xenon gas enriched to 91% with ^{136}Xe isotope. It is under construction at Canfranc Underground Laboratory (Spain). The detector is an asymmetric time projection chamber with a plane of PMTs and a tracking plane of SiPMs located behind a pair of electro-luminescence grids. It boasts an excellent energy resolution, better than 1% FWHM at the Q value of the ^{136}Xe , and event topological information to identify signal and background. At the conference we will present results obtained with a prototype, NEXT-DEMO, the status of NEXT-100 and the prospect to build a ton-scale experiment.

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