Tracker Commissioning for the SuperNEMO experiment

The SuperNEMO experiment will search for neutrinoless double beta decay in the Modane Underground Laboratory. The existence of this process implies the existence of Majorana fermions and new lepton number violating interactions in the weak sector. The SuperNEMO demonstrator module is the first stage of the experiment, containing 7 kg of 82Se, with an expected sensitivity of T1/20v>6.6x1024y after 2.5 y. Full topological event reconstruction is achieved through the use of a wire tracker operating in geiger mode combined with scintillator calorimeter modules. To achieve the low backgrounds required, all materials must achieve stringent radiopurity limits, and the modules constructed in a clean room environment. Construction of the tracker for the demonstrator module is underway in the UK, and the detector design, construction status and results from commissioning the first section of the tracker are presented.

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