

EXO-200 Results

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The Enriched Xenon Observatory (EXO) experimental program is searching for the neutrino-less double beta decay of xenon-136. A first stage experiment called EXO-200 is running at the WIPP salt mine in New Mexico. EXO-200 uses 200 kg of xenon enriched to 80% in the 136 isotope, a large fraction of which is liquefied and constitutes the source and active medium to detect ionizing interactions in its bulk. The detector is instrumented as a double time projection chamber (TPC) in which both the ionization and the scintillation signals are detected to maximize energy resolution. EXO-200 has recently placed new limits on the neutrino-less double beta decay half-life of xenon-136, with $T_{1/2} > 1.6 \times 10^{25}$ years, corresponding to an effective Majorana mass of less than 140-380 meV. I will give an overview of this recent result.