

Abstract Submitted
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Status of CUORE: Bolometric Search for Neutrinoless Double Beta Decay REINA MARUYAMA, UC Berkeley/LBNL, CUORE COLLABORATION — CUORE is a bolometric neutrinoless double beta decay experiment currently under development at Gran Sasso National Laboratory. It will consist of 988 TeO₂ crystals weighing a total of 750 kg. The primary goal is to look for neutrinoless double beta decay of Te-130. Most experimental techniques have been demonstrated in the currently running prototype Cuoricino, however a few technical challenges remain. The key to the success for CUORE lies in ensuring ultra-low radioactive backgrounds in the detector and having well-characterized uniform thermistors for each crystal to measure the energy deposited from a nuclear decay. Recent R&D developments for CUORE will be discussed, including background studies and thermistor production.

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