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The AMoRE project: Search for neutrinoless double beta decay of ^{100}Mo using cryogenic $^{40}\text{Ca}^{100}\text{MoO}_4$ detectors

The AMoRE (Advanced Mo based Rare process Experiment) project is an international experiment to search for neutrinoless double beta decay of ^{100}Mo using cryogenic scintillating crystals. The detector is composed of $^{40}\text{Ca}^{100}\text{MoO}_4$ crystals (depleted in ^{48}Ca and enriched in ^{100}Mo) and metallic magnetic calorimeters as the target and sensor materials in the concept of source-equals-detector. It is scheduled to build a large scale experiment with 200 kg $^{40}\text{Ca}^{100}\text{MoO}_4$ crystals in the next 8 years. The proposed experiment is expected to be sensitive to effective Majorana Neutrino masses of 0.02-0.05 eV. An overview of the current status will be presented.

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