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Status of the AMoRE experiment searching for neutrinoless double beta decay of ^{100}Mo

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The goal of the Advanced Mo-based Rare process Experiment (AMoRE) is to search for neutrinoless double beta decay of ^{100}Mo using low-temperature detectors consisting of Mo-based scintillating crystals and sensors based on metallic magnetic calorimeters (MMCs). The detector system operates at millikelvin temperatures, which are reached using a dilution refrigerator, and performs simultaneous measurements of heat and light signals. The AMoRE-Pilot experiment, using five ^{100}Mo-enriched, ^{48}Ca-depleted calcium molybdate crystals with a total mass of about 1.5 kg, has been running in the 700-m-deep Yangyang underground Laboratory as the pilot phase of the AMoRE project. Several setup improvements through different runs allowed us to achieve high energy resolution and efficient particle discrimination. The current status of AMoRE-Pilot, as well as the plans for the next, higher-scale, experimental stages, will be presented.

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