

Abstract Submitted
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Status of EXO-200 FRANCISCO LEPORT, Stanford University, EXO COLLABORATION — EXO-200 (Enriched Xenon Observatory-200kg) is an experiment designed to detect the double-beta decay of ^{136}Xe . It will use 200 kg of Xe, isotopically enriched to 80% in ^{136}Xe , which is currently on hand at Stanford University. The Xe will be used as an active medium in the detector, and will be contained in liquid form in an ultra-low background, TPC. EXO-200 will be the first low-background detector to make large-scale use of Large Area Avalanche Photodiodes (LAAPDs), used to collect scintillation light. The simultaneous collection of ionization charge and scintillation light for every event has been proven to dramatically improve energy resolution. EXO-200 will be housed under a ~ 2000 meter water-equivalent overburden at WIPP, New Mexico. Once completed, it will be the largest running double-beta decay experiment. It is designed to achieve competitive sensitivity for the neutrinoless double-beta decay mode ($0\nu\beta\beta$), as well as measure the as yet unobserved two neutrino double-beta decay mode ($2\nu\beta\beta$) of ^{136}Xe .

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