

CDEX-300v: neutrinoless double beta decay experiment based on Ge-76

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Neutrinoless double beta decay ($0\nu\beta\beta$) is one outstanding problem that has strong links with several important topics including confirming whether the neutrino has Dirac or Majorana character and whether lepton number is conserved. Beside direct searches of Dark Matter (DM), the China Dark Matter Experiment (CDEX) collaboration proposed and is pushing forward to build the CDEX-300v experiment to search $0\nu\beta\beta$ of ^{76}Ge isotope based on germanium detector. CDEX-300v project will include a ^{76}Ge -enriched germanium array detector system with total mass of 300 kg and a liquid argon active shielding system. The liquid argon tank is located into a liquid nitrogen tank with a volume of 1725 m³ for cooling down and further decreasing the ambient radioactive backgrounds. More details of CDEX-300v will be introduced in this talk.

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