

PandaX-4ton liquid xenon detector for rare physics search

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Content

PandaX collaboration proposed a 4-ton liquid xenon detector to search for rare physics like dark matter and neutrino. The PandaX-4ton detector contains a TPC with a diameter of 1.2 m and a height of 1.2m. The TPC size is approximately doubled in every dimension from PandaX-II (500kg liquid xenon), presenting several technological challenges. With 6 ton-year exposure, the sensitivity to spin-independent WIMP-nucleon cross section is expected to reach 10^{-47} cm².

Summary

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