

Abstract Submitted
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Parasitic Charge Measurements of VUV-sensitive SiPMs for nEXO MICHAEL WAGENPFEIL, GABRIELA ARIAS, FABRICE RETIERE, TRIUMF — Silicon Photomultipliers (SiPMs) are semiconductor light detectors which are of great interest for future particle Physics experiments due to their low noise level, high gain and high radiopurity. nEXO (next Enriched Xenon Observatory) is a planned multi-ton LXe TPC designed for the search for neutrinoless double beta decay. SiPMs are good candidates for light detectors in nEXO however require sensitivity to the UV scintillation light of Xenon at 175 – 178 nm which is not possible with conventional devices. In this work we present measurements of dark noise and parasitic charge probability of three current VUV-sensitive SiPM models produced by manufacturers Hamamatsu, FBK and KETEK and compare their performance with the nEXO requirements.

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