Abstract Submitted
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Status of the SOX experiment[1] JELENA MARICIC, University of Hawaii, SOX/BOREXINO COLLABORATION COLLABORATION — Observation of the oscillation pattern as a function of distance from the neutrino source will provide a very strong argument in favor of neutrino mixing with sterile neutrinos and their existence. SOX experiment will perform such measurement. A strong antineutrino generator ^{144}Ce-^{144}Pr (CeANG) with the activity between 3.7-5.5 PBq will be placed below the Borexino detector, measuring the electron antineutrino rate and spectrum as a function of distance from the generator. Borexino is a large 300 ton detector located at the Gran Sasso national laboratory in Italy. The antineutrino generator will be placed under the detector in a dedicated pit providing the continuous oscillation sampling distance from 4 - 12 m. The CeANG will be produced at a dedicated facility called Mayak in Russia, while the 2.2 ton tungsten shield has been produced at the Xiamen company in China. Details of the experiment, source production and sensitivity to neutrino oscillations in SOX will be presented.

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