



Contribution ID: 204

Type: **Poster**

Production of muon-induced radioactive isotopes at Daya Bay Experiment

Cosmic-ray muon-induced radioactive isotopes are common backgrounds to various rare-event experiments, such as neutrino oscillation experiments, double beta-decay experiments and dark matter searches. Understanding the properties of such isotopes is particularly important for future experiments with higher sensitivities than the current generation. We study the relative production rate of the cosmogenic isotopes in the Daya Bay Reactor Neutrino Experiment. The production rates were measured by fitting the decay time and the beta energy spectrum of the isotopes respectively. The recent progress will be shown in the poster. We acknowledge support of the Hong Kong RGC grant No. CUHK3/CRF/10.

Primary author: Ms LIU, Sishuo (Department of Physics, The University of Hong Kong)

Co-authors: Dr WONG, Chan Fai (Department of Physics, The Chinese University of Hong Kong); Dr PUN, Chun Shing Jason (Department of Physics, The University of Hong Kong); Dr NGAI, Ho Yin (Department of Physics, The University of Hong Kong); Mr XU, Jianyi (Department of Physics, The Chinese University of Hong Kong); Dr LEUNG, John Kon Chong (Department of Physics, The University of Hong Kong); Mr FUNG, Ka Yu (Department of Physics, The University of Hong Kong); Prof. LUK, Kam-Biu (Lawrence Berkeley National Laboratory; Department of Physics, University of California); Ms LEUNG, Kar Yee (Department of Physics, The University of Hong Kong); Mr CUI, Kexi (Department of Physics, The University of Hong Kong); Mr KWOK, Man Wai (Department of Physics, The Chinese University of Hong Kong); Prof. CHU, Ming Chung (Department of Physics, The Chinese University of Hong Kong); Mr LI, Shengchao (Department of Physics, The University of Hong Kong); Mr KWAN, Soap (Department of Physics, The Chinese University of Hong Kong); Dr KWOK, Talent (Department of Physics, The University of Hong Kong); Mr CHAN, Yat Long (Department of Physics, The Chinese University of Hong Kong)

Presenter: Ms LIU, Sishuo (Department of Physics, The University of Hong Kong)

Track Classification: Reactor Neutrino Oscillations