



Contribution ID : 919

Type : Poster

calibration of prototypes of detectors of GAMMA-400 space-based gamma-ray telescope on synchrotron C-25P «PAKHRA» of Lebedev Physical Institute

Monday, 5 October 2020 17:30 (150)

GAMMA-400 space-based gamma-ray telescope represents the core of the scientific complex intended to perform a search for signatures of dark matter in the cosmic gamma-emission, measurements of diffuse gamma-emission characteristics, investigation of extended and point gamma-ray sources, studying of high energy component of gamma-ray bursts and solar flares emission. Prototypes of anticoincidence detector and two calorimeters were tested on synchrotron C-25P «PAKHRA» of Lebedev Physical Institute in Russia. The prototype of anticoincidence detector consists of strip of polyvinyltoluene scintillator BC-408 with dimensions of 1280x100x10 mm³, the prototypes of calorimeters consist of CsI(Tl) crystals with size of 330x50x20 and 450x36x36 mm³. All detectors prototypes used SiPM readout. The results of measurements of detectors characteristics are discussed in the work presented.

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Session Classification : Poster session

Track Classification : Facilities and advanced detector technologies