

## Investigations of large scintillation detectors response based on SiPM

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During the development of large fast scintillation detectors with silicon photomultipliers (SiPM) for the satellite based gamma-ray telescope GAMMA-400, the properties of the SiPM allowed to measure the number of photoelectrons detected. The minimum of photoelectrons detected is calculated for effective particles selection. The functions of the detector response to SiPM with a different number of cells are compared with the use of a photomultiplier. It was found that to increase the efficiency of charged particles detection it is necessary to raise the amount of collected light. The technical possibilities of this enhancement are considered.

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