

Development of a system of scintillation detectors for space radiation suppression in the experiment aims to study dd-fusion reactions with the low beam energy (PolFusion)

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The work will be presented on the development of a system of scintillation detectors for space radiation suppression in the experiment aims to study dd-fusion reactions with the low beam energy (PolFusion). The PolFusion nuclear physics experiment carried out at the Petersburg Nuclear Physics Institute (Gatchi-na), the purpose of which is to study the fusion reaction of $2\text{H}(\text{d}, \text{p})3\text{H}$ and $2\text{H}(\text{d}, \text{n})3\text{He}$ with polarization of the initial particles at low energies in the range of 10-100 keV. This work includes the following stages: modeling of the central detector system of the PolFusion experiment and the scintillation detector system, development of the design of the scintillation detector system and the results of test measurements of cosmic radiation.

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