

# Modular Neutron Detector on the Basis of Composite Scintillators

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Modular neutron detector on the basis of composite scintillators which may be used in creation of radiation monitors with a large sensitive surface was suggested. Composite scintillators are composed of dielectric gel as a basis where granules of scintillating substance, for example, gadolinium granules containing scintillators, are introduced. Thermal neutron converter, which contains  $^6\text{Li}$  or  $^{10}\text{B}$  isotopes, is additionally introduced when using granules of scintillators on the basis of binary compounds of zinc and selenium, or sulfur. Characteristics of the detector with the size of the sensitive surface  $100 \times 100 \text{ cm}^2$  are obtained by the simulation on GEANT4. They allow using it as a part of GAMMA-400 space observatory.

## Presentation type

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