

The Trigger and Read out Systems Space Experiment NUCLEON

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Abstract

The goals of Space experiment NUCLEON are presented in the work. The detector permits to measure cosmic rays within a wide range of energies (1010 -1016 eV). The issues of readout electronics involving semi-conductor and strip scintillation detectors are considered.

The number of silicon detectors channels amounts to about 20000, and the number of scintillation channels exceeds 300. The criteria for triggers of various levels for the registration of nuclei and of cosmic rays high energies are discussed.

Concrete proposals are presented for both the constructive elements and the electronics units.