

NEW METHOD OF ELECTRONS AND PROTONS SEPARATION IN THE CALORIMETER OF THE PAMELA INSTRUMENT

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PAMELA experiment on board Resurs DK satellite was equipped with electromagnetic imaging calorimeter, which comprises 44 silicon planes interleaved with 22 plates of tungsten absorber (total depth 16,3X0).

High granularity of calorimeter allows an accurate spatial reconstruction of the shower development.

New method of separation of electrons and protons based on single strip distribution outside of main particle track is discussed.

Monte-Carlo simulation shows that adding this method proton rejection power of the instrument can be increased several times in energy range from ~10 to ~100 GeV.

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