

SEARCH FOR THE DIRAC MONOPOLE AT THE 70 Gev

I.P.H.E. PROTON SYNCHROTRON.

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The 70 Gev I.P.H.E. proton accelerator is able to produce monopoles with the mass up to 5-7 proton masses. The samples made of a tungstem plate and a permendur foil 100 μ thick were displaced near the target. Target material is an aluminium. The detailed analyse of the monopole comportement in various mediums has been developed; it shows that in the present experiment monopoles loss their energy efficiently down to thermal velocity and are accumulated in the permendur foil. After the end of an irradiation the magnetic field with the intensity of 220 Kgs has been applied to the samples. The BR-2 type nuclear photoemulsion has been used as a detector. The upper limit on the production cross section for monopoles, calculated on the base of the number of p-target interactions, is σ (90 %) \leq $1,5 \cdot 10^{-41}$ cm².