

探测器与实验方法

An MRPC for fast neutron detection

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摘要

The possibility to detect fast neutrons with a multi-gap resistive plate chamber (MRPC) has been investigated. To detect fast neutrons, a thin polyethylene layer is coated on the surface of electrode glass as a fast neutron converter. The MRPC detects the charged particles generated by neutrons via the (n,p) reaction on hydrogen. A prototype detector has been developed and tested on fast neutron sources in order to evaluate its performance: good agreement between experimental results and simulation has been achieved. A detailed description of the detector and the experimental test results are presented.

关键词

[MRPC, fast neutron, flight time](#)

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