

2D ^{10}B -RPC FOR SLOW NEUTRONS

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The shortage of ^3He gas and limitations of spatial resolution and rate capability of ^3He -based detectors stimulate development of a new generation of detector systems for registration of slow neutrons. Resistive plate chambers (RPC) have design features that can reduce the uncertainty in measuring the position and time of a neutron's interaction with the detector. RPC also have a higher rate capability compared to wire detectors. The report will present a two-coordinate position-sensitive detector based on RPC with $^{10}\text{B}_4\text{C}$ thin film converter and the measurement results obtained with different radiation sources.