

## Abstract

In this paper, we summarized a Bakelite Resistive Plate Chamber (RPC) with non-oil surface treatment. This type of RPC has been installed and run smoothly in BESIII Muon identification system and Daya Bay cosmic Muon veto system. Based on its good performances, it has been further studied as the sensitive detector of a digital hadron calorimeter for measuring the energies of particles in a hadron jet and as a thermal neutron detector. In addition, since the bulk resistivity of Bakelite plates can be controlled, further developments with low bulk resistivity are being undertaken to guarantee high rate capability in experiments.