

## Development of 6 gap Bakelite Multi-gap Resistve Plate Chamber.

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The Multi-gap Resistive Plate Chamber (MRPC) is an advanced form of Resistive Plate Chamber (RPC) detector where the gas gap is divided into sub-gaps. MRPCs are known for their good time resolution and detection efficiency for charged particles. The MRPCs that are being used nowadays are developed with glass electrodes. We have made an attempt to develop a 6-gap MRPC using bakelite electrodes. The outer electrodes are of dimensions 15 cm × 15 cm × 0.3 cm and the inner electrodes are of dimension 14 cm × 14 cm × 0.05 cm. The glossy finished electrode surfaces have not been treated with any lubricants like linseed oil, silicone oil for smoothness. The performance of the detector has been studied measuring the efficiency, noise rate and time resolution with cosmic rays. Details of the development procedure and performance studies will be presented.

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