CHARACTERISATION OF A NEW RPC PROTOTYPE USING CONVENTIONAL GAS MIXTURE

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In high energy physics experiments, Resistive Plate Chambers (RPCs) are being used for triggering and tracking because of their high efficiency, good time resolution and low cost of fabrication. A new technique is introduced to do the linseed oil coating on the bakelite plates for a prototype RPC.

**FABRICATION STEPS**

- Application of linseed oil
- Oil coated bakelite surface
- Gluing of spacers and nozzles
- Gluing the second plate
- Complete RPC module

The linseed oil coating is done before making the gas gap. The advantage of this procedure is that after linseed oil coating it can be checked visually whether the curing is properly done or any uncured droplet of linseed oil is present.

**RESULTS**

The efficiency and noise rate as a function of the voltage for 100% Tetrafluoroethane ($\text{C}_2\text{H}_2\text{F}_4$)

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