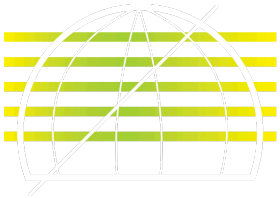

RPC 2022

Contribution ID: **72** Type: **Poster**

Study of industrial epoxy resins with graphene nanotubes for the realization of low resistivity electrodes of RPC detectors

Thursday, 29 September 2022 14:10 (3 minutes)

The study of new materials for the construction of electrodes with low resistivity and high resistance to aging and radiation damage is a central theme in development of future RPC detectors. We investigated the properties of a new low-cost epoxy resin doped with graphene nanotubes, through the material voltammeter characterization and building a small demonstration prototype. The qualification of such a material would allow to produce detectors with very high-rate capability by exploiting conventional industrial processes. Furthermore, the epoxy resins properties would allow building electrodes of any shape and size, extending their application to detectors with non-planar geometry.

Primary authors: ROCCHI, Alessandro (INFN e Universita Roma Tor Vergata (IT)); LIBERTI, Barbara (INFN e Universita Roma Tor Vergata (IT)); CARDARELLI, Roberto (INFN e Universita Roma Tor Vergata (IT))

Presenter: ROCCHI, Alessandro (INFN e Universita Roma Tor Vergata (IT))

Session Classification: Poster session