

Time-Projection-Chamber for MPD NICA Project

Wednesday, 26 February 2014 10:15 (0:25)

Abstract content

The Time-Projection Chamber (TPC) is the main device for tracking and identification of charged particles in the MPD experiment at NICA collider. The TPC is cylinder in shape with a volume close to 18 m^3 , length 3 m, diameter 2.8 m. Solenoidal magnetic field is 0.5 T. The report presents the design consideration of this detector for its operation at the central Au-Au collisions at energy up to 11 GeV/c and event rate of 5 kHz. Status of the TPC construction and features of main parts (field cage, read-out chambers, front end electronics, gas and cooling systems, laser-calibration) as well as testing software are described.

Summary

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Session Classification : Tracking

Track Classification : Tracking