

# The 8th International Conference on Micro Pattern Gaseous Detectors (MPGD2024)



Contribution ID: 78

Type: **not specified**

## 15. Research on the calibration method of the avalanche gap of MTPC anode plate

*Tuesday 15 October 2024 17:41 (4 minutes)*

This report presents an investigation on the calibration of anode plate of the Multi-purpose Time Projection Chamber (MTPC). MTPC mainly acquires the energy of the emitted particles from the responded pad. The energy information on the pad mainly depends on the gain uniformity. Therefore, it is necessary to calibrate the electron avalanche gain and the energy resolution of MTPC. The Micromegas detector is applied as the anode plate of MTPC, and the avalanche gap between the mesh and the resistive layer directly determine the gain of the anode plate. This report delineates the approach for calibrating the avalanche gap of the anode plate via X-ray source and alpha source. By fitting the curve of electron avalanche gain with photon feedback coefficient, we obtain the avalanche gap of the anode plate.

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**Session Classification:** Poster Session