

Measurements with 2 new Micromegas module(s) at B=0

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Test performed from Dec. 7 to Dec. 11, 2009 at DESY.



Phone WP meeting, Dec. 10, 2009

i r f u
cead
saclay

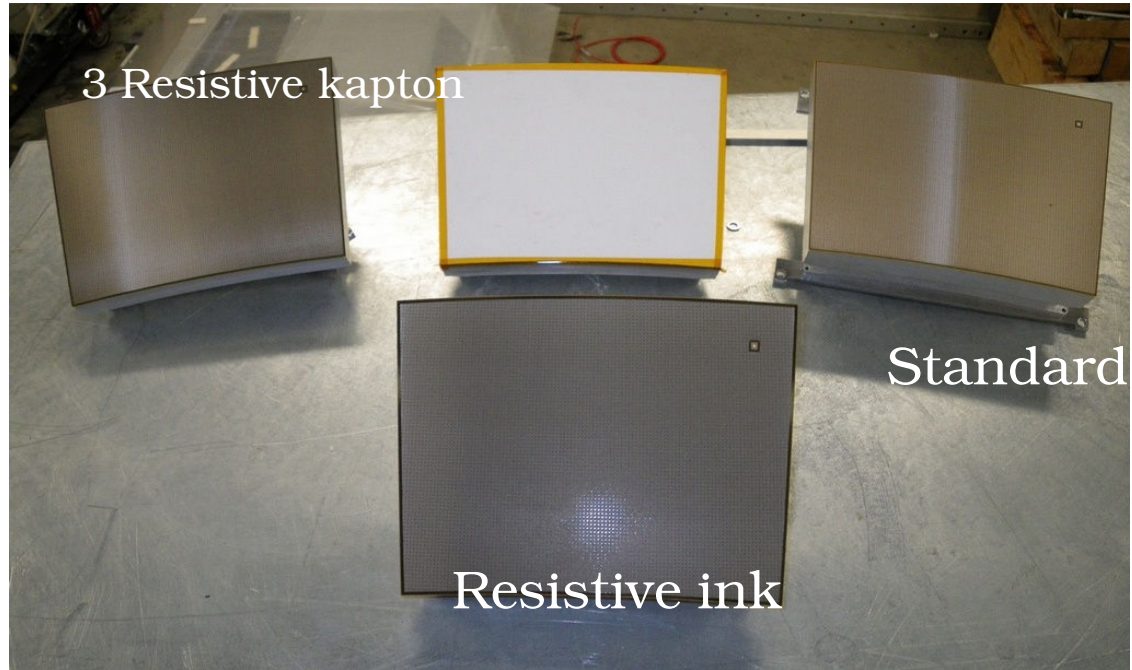


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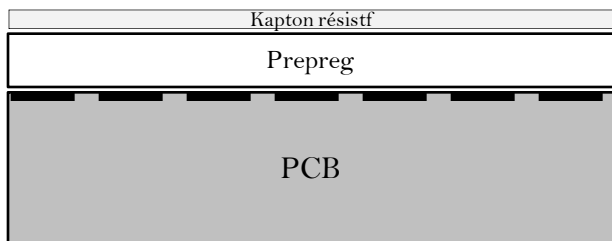
- 5 modules:
- 1 standard
- 1 res. ink
- 3 resistive kapton



Goal of this data taking :

- Train for March 2010 final measurements with 1 module
- Compare 2 routings with the same res. Foil
- Measure Neff (get rid of delta rays), z resolution.

Resistive Kapton

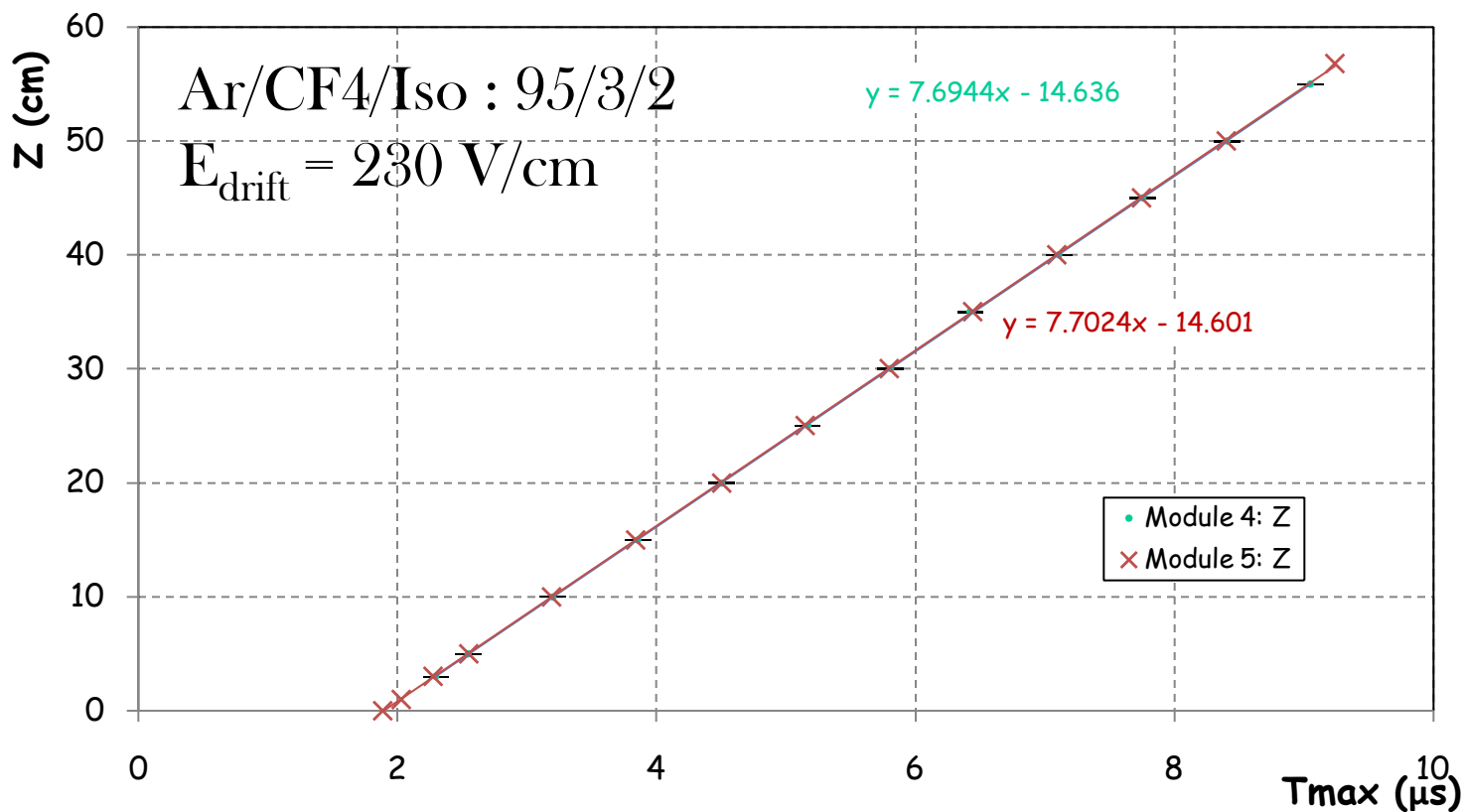


New kapton adapted to 200 ns shaping time : close to optimum

Detecteur	Insulating layer	Resistive layer	Resistivity (MΩ/□)
Kapton résistif	Epoxy glass 75 μm	C-laoded Kapton 25 μm	~2.9 (M. Dixit) (previous roll was 5)

The difference between modules 4 and 5 is the PCB (CERN vs Saclay routing, 4 vs 6 layers, 2 different companies)

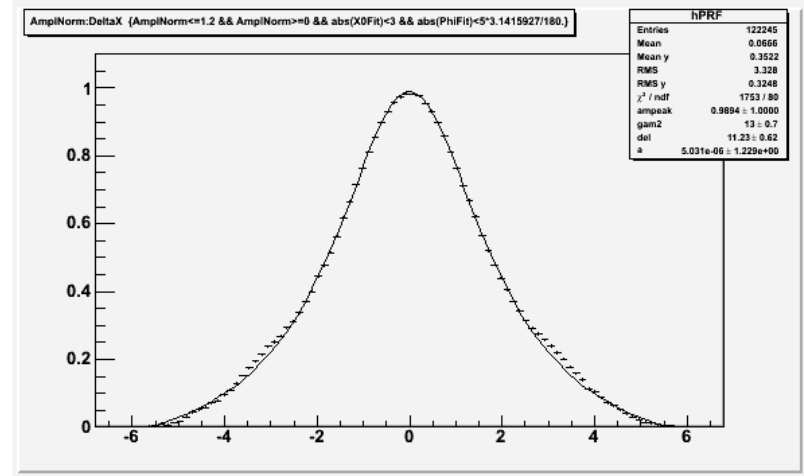
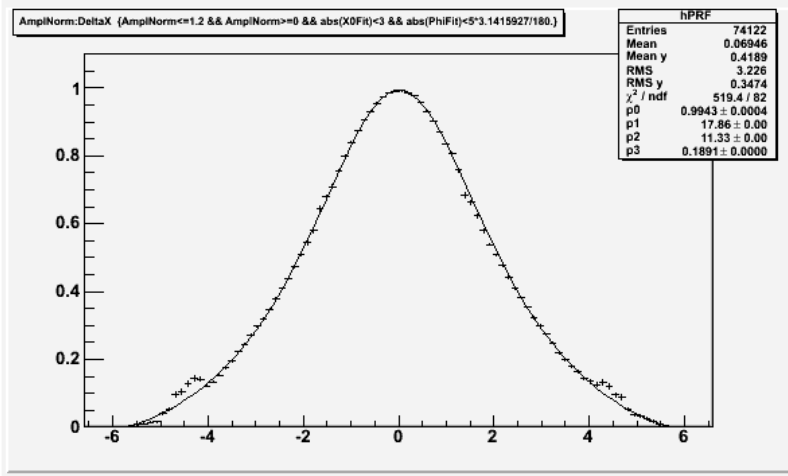
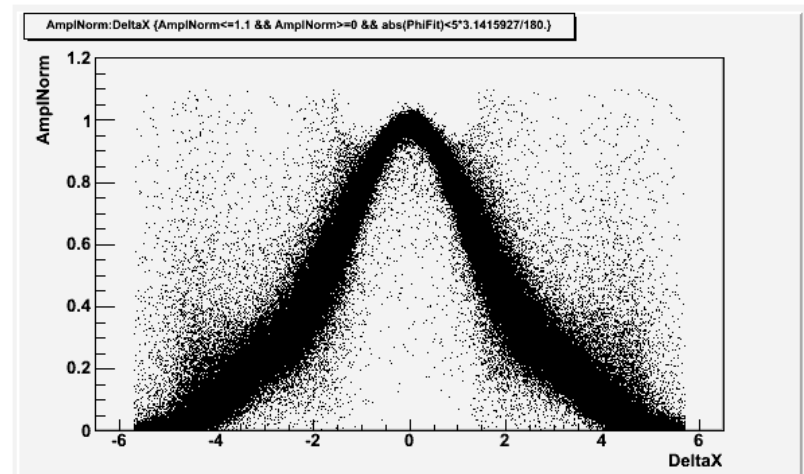
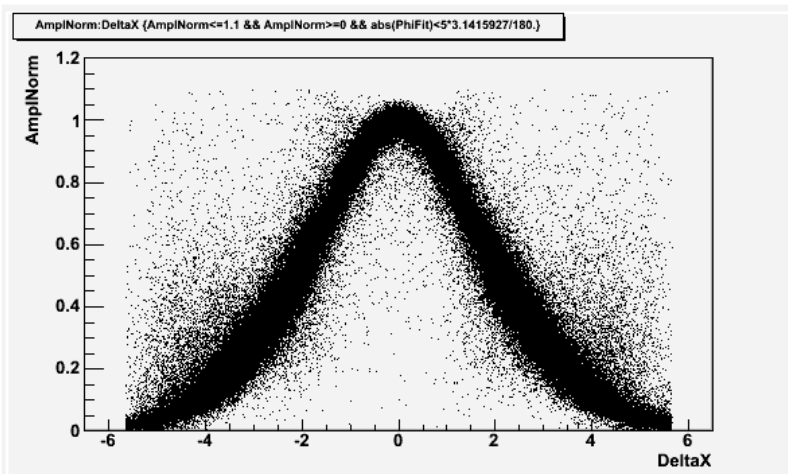
Drift Velocity (200 ns) (New CLK)



$$V_{\text{drift}} = 7.698 \pm 0.005 \text{ cm}/\mu\text{s} \quad t_0 = 1.9 \mu\text{s}$$

Magboltz (50 ppm H₂O) : 7.6

- Prfs 'thicker' than usual : delta rays and B=0 (z=15cm)
- 200ns shaping gives slightly wider prf than 500 ns



- The two detectors performed very well. We now have 5 fully efficient modules (1 dead pad out of 8630).
- Plan to take final data with the new module in March 2010 at $B=1$ T,