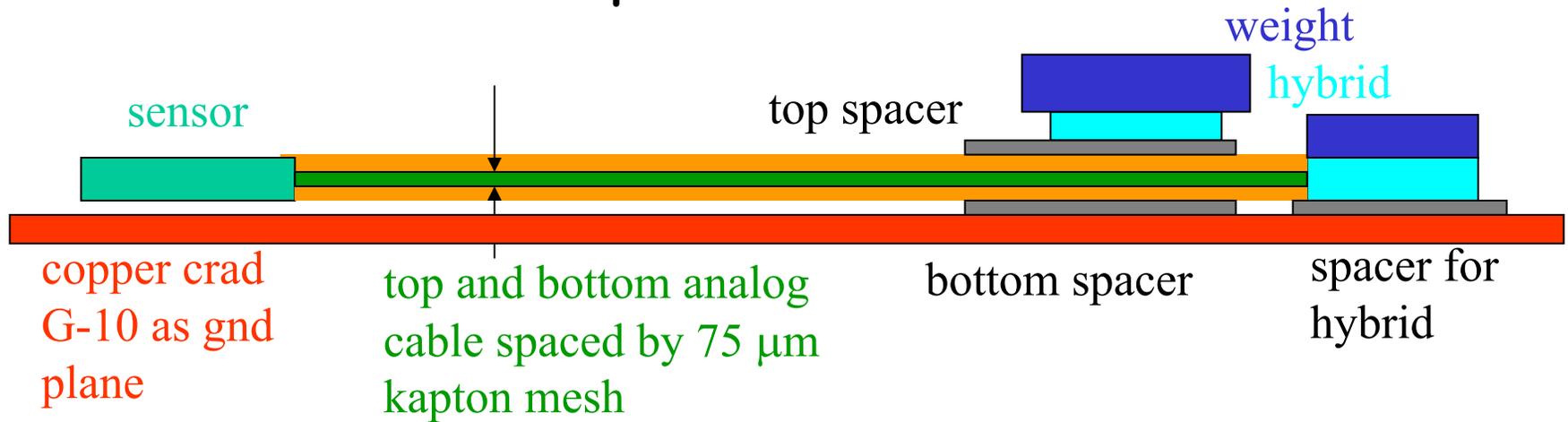


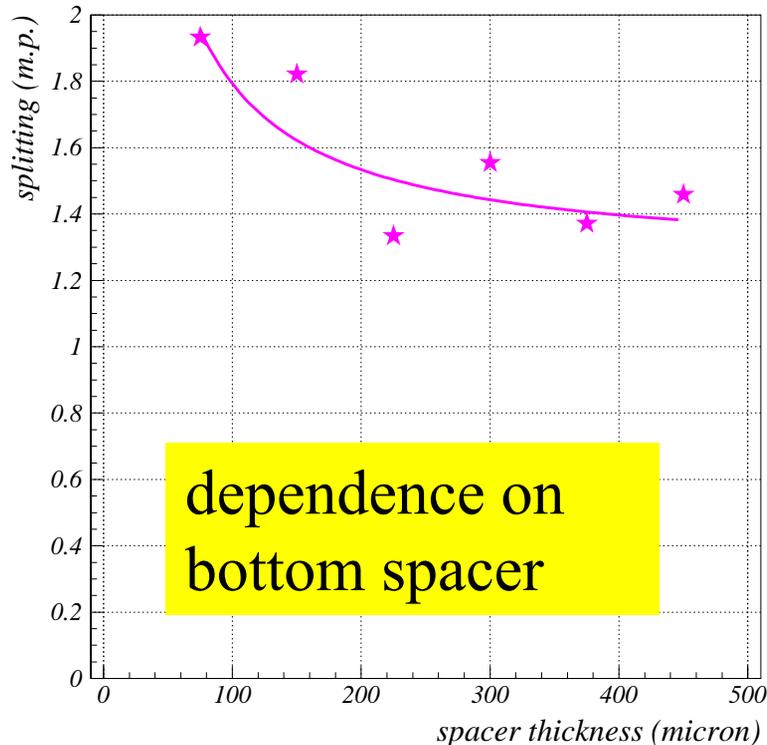
Spacer studies



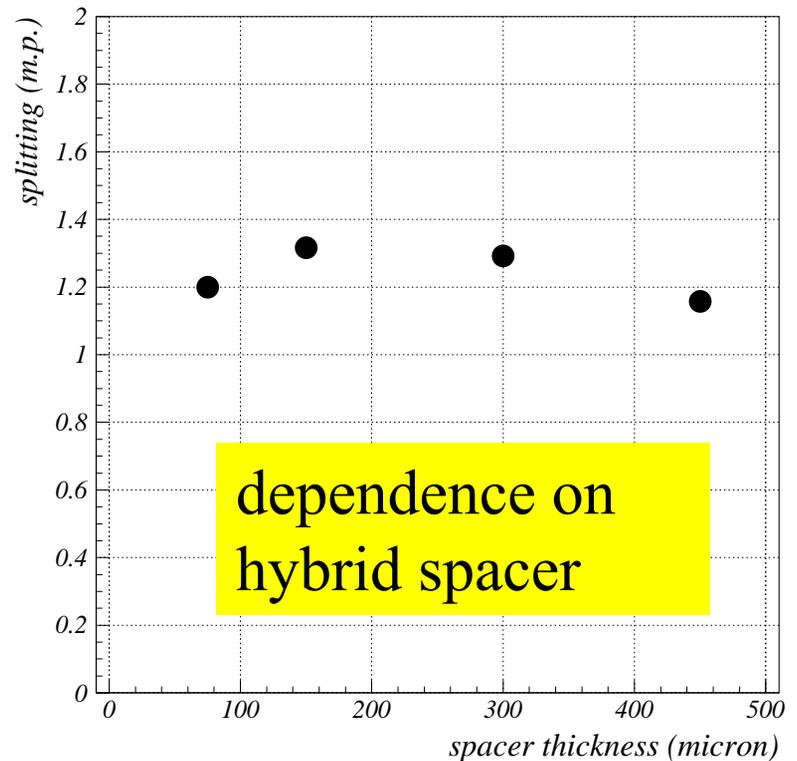
- Standalone module plus hybrid, both are read out simultaneously
- 132 ns integration with BW=4
- 50V applied on sensor
- Space of bottom spacer was not well controlled
- **AGAIN** you need nice low inductance connection between the Cu-crad G-10 and GND of purple card

Bottom and Hybrid spacer

- no top spacer
- spacer is kapton sheet



hybrid spacer:
75 μm kapton sheet

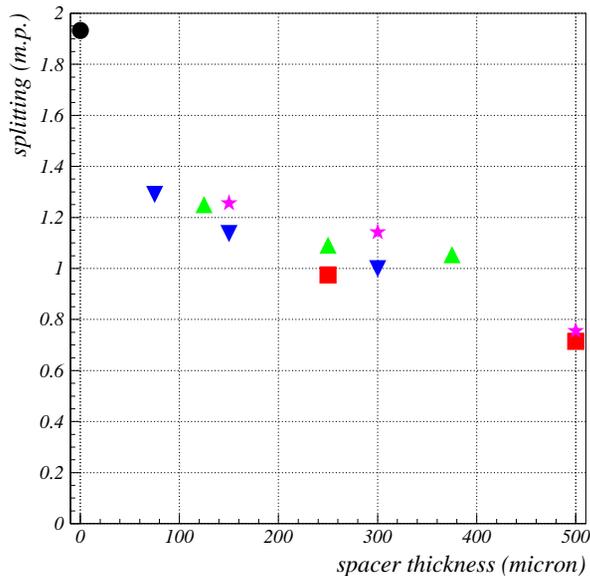


bottom:
75 μm kapton sheet
plus 300 μm kapton
mesh

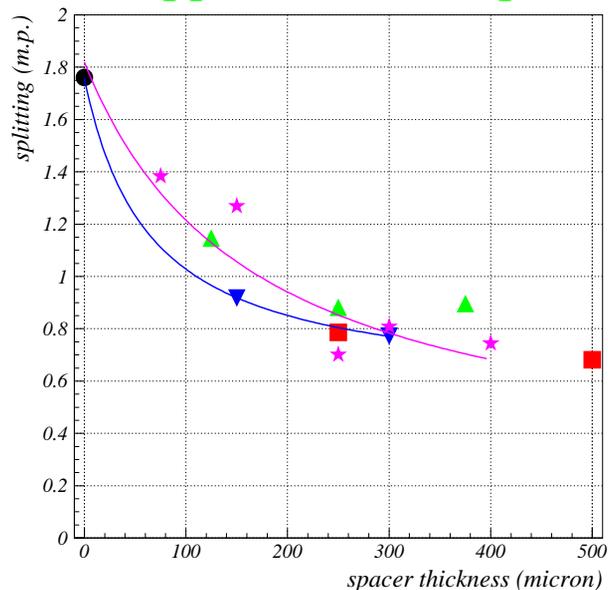
Top spacer dependence

- all results are obtained with off timing of cal_sr
- hybrid spacer: 75 μm kapton sheet

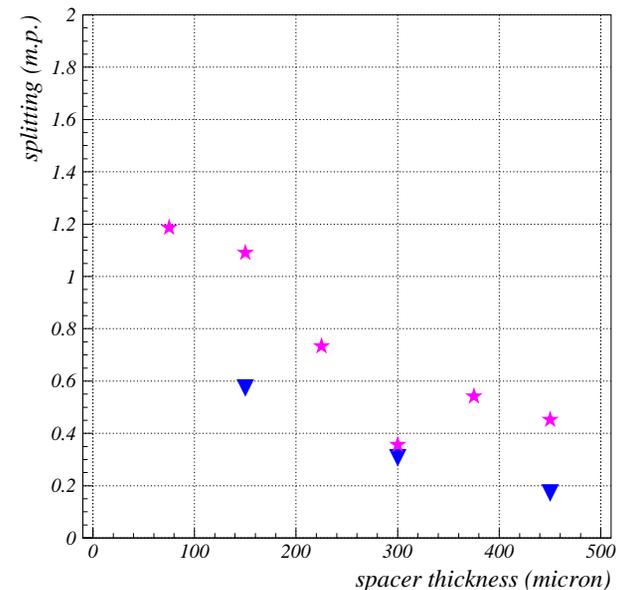
kapton sheet
 kapton mesh
 copper sheet w/kapton
 copper mesh w/kapton



bottom:
 75 μm kapton sheet



bottom:
 225 μm kapton sheet



bottom:
 75 μm kapton sheet
 plus 300 μm kapton
 mesh

Summary

- In case there is bottom spacer whose thickness $\leq 300 \mu\text{m}$, the splitting is approaching to plateau with $200 \mu\text{m}$ spacer
 - the plateau depends on the bottom spacer
 - the size is < 1 ADC count
- Because of the uncertainty of measurement, which I guess 10-20%, it is difficult to say something about material dependence
 - However, kapton mesh seems to be better than solid kapton sheet (?)
- No dependence on hybrid spacer