



Silicon detector test updates

2021.10.24

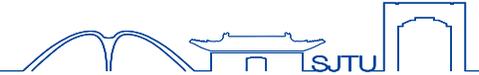
Kang Liu for tracker lab



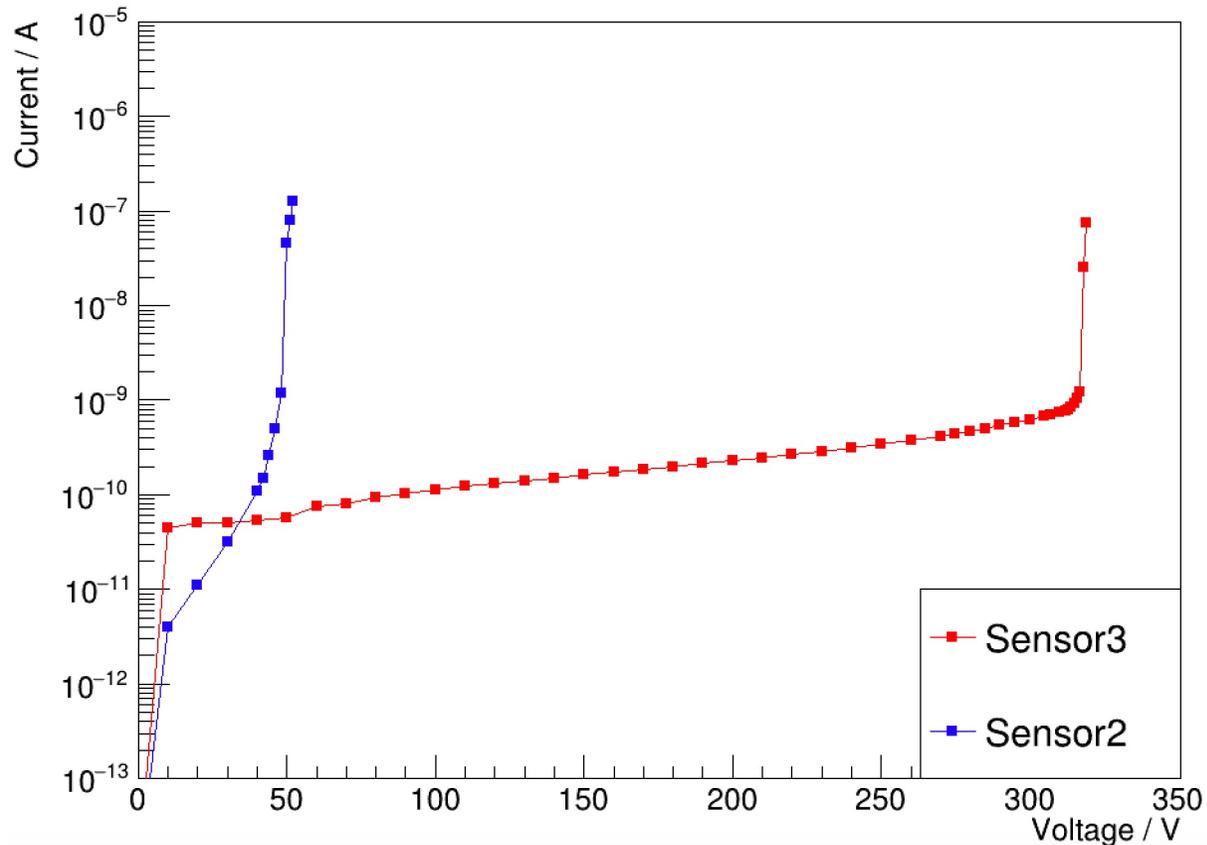
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Device damage condition test by IV



Sensor 2 has been confirmed to be damaged
Sensor test

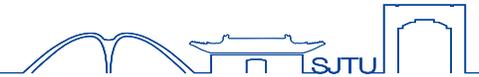


There is a significant difference of IV curves between sensor3 and sensor2.

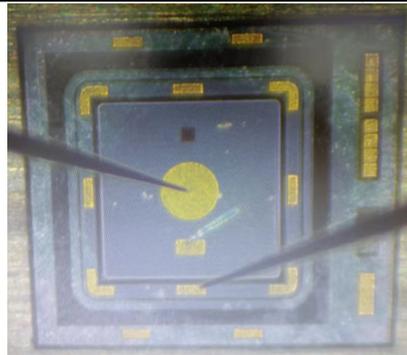
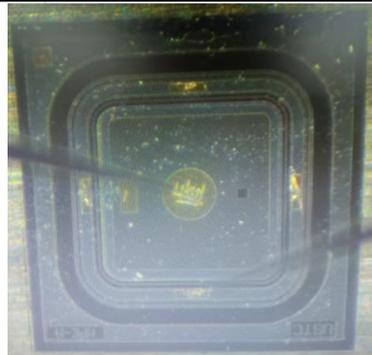
W7P14

sensor3	LGAD_USTC_BL
sensor2	LGAD_USTC_BL

Device damage condition test by IV



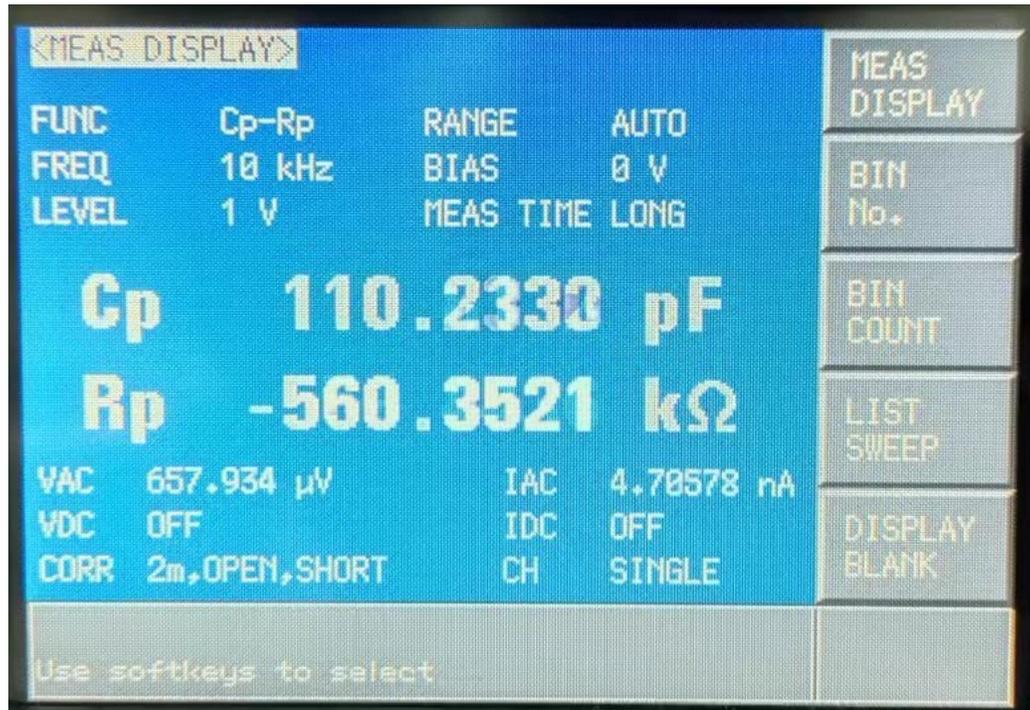
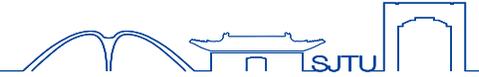
编号	型号	状态	问题描述	备注
sensor_dirty	LGAD_USTC_FP-N	或许轻微损伤	损伤, 雪崩电压数值不稳定	
sensor4	LGAD_USTC_NPE-N	或许轻微损伤	轻微损伤, 原雪崩电压318V, 现雪崩电压310V	变温测试
sensor3	LGAD_USTC_BL	正常		变温测试
sensor2	LGAD_USTC_BL	损坏	25摄氏度下雪崩电压只有51V	
sensor1	LG1_SE5	正常		变温测试
hpk1	LG1_SE5	正常		
hpk2	LG1_SE5	正常		
hpk3	LG1_SE2	正常		
hpk4	LG1_SE5	正常但不稳定		



Handwritten notes on a green background:

- WIP14 □ BL1 □ T1.2
- BL.2 □ T1.2
- T2
- WIP14 □ NPE-N □ T3.1
- FP-N □ T3.2

C-V test

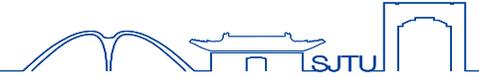


CV 校准:

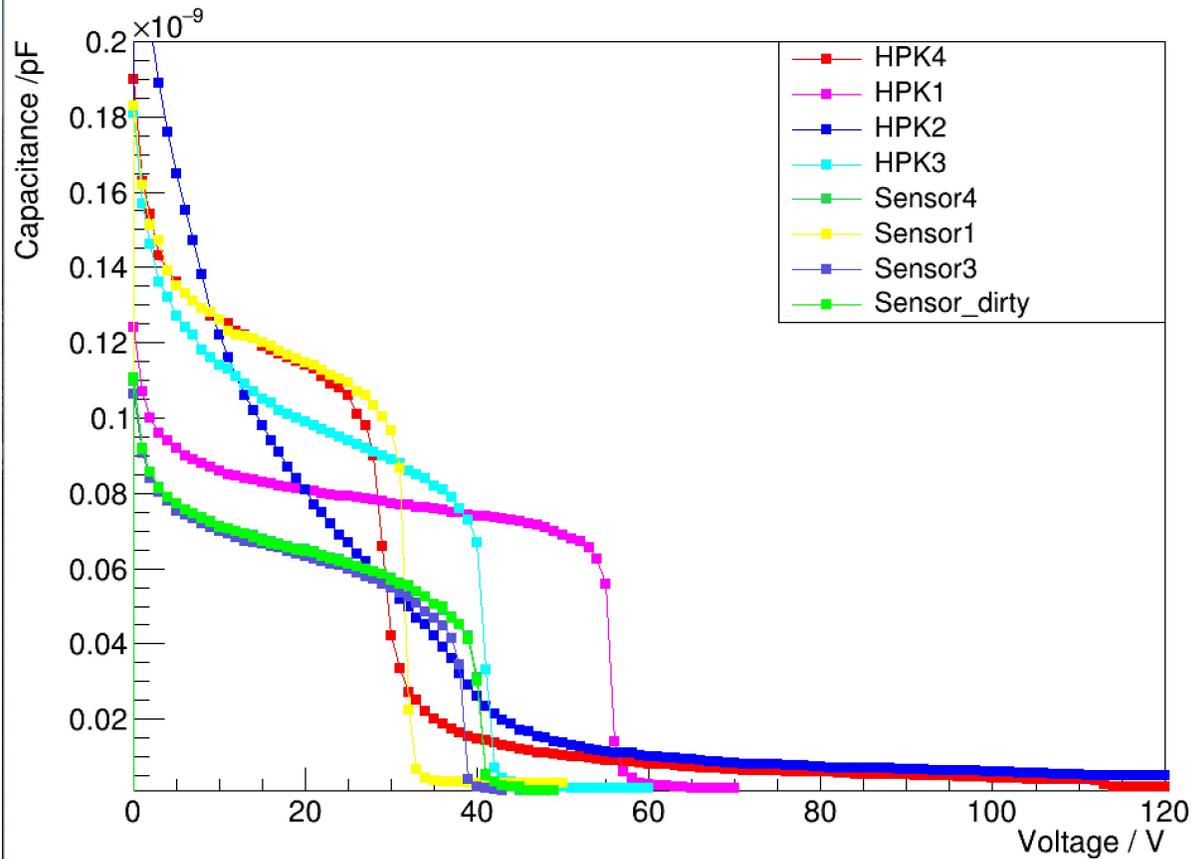
开路: 电容~百 fF; 电阻~百 M欧

短路: 电容~百 fF; 电阻~百 K欧

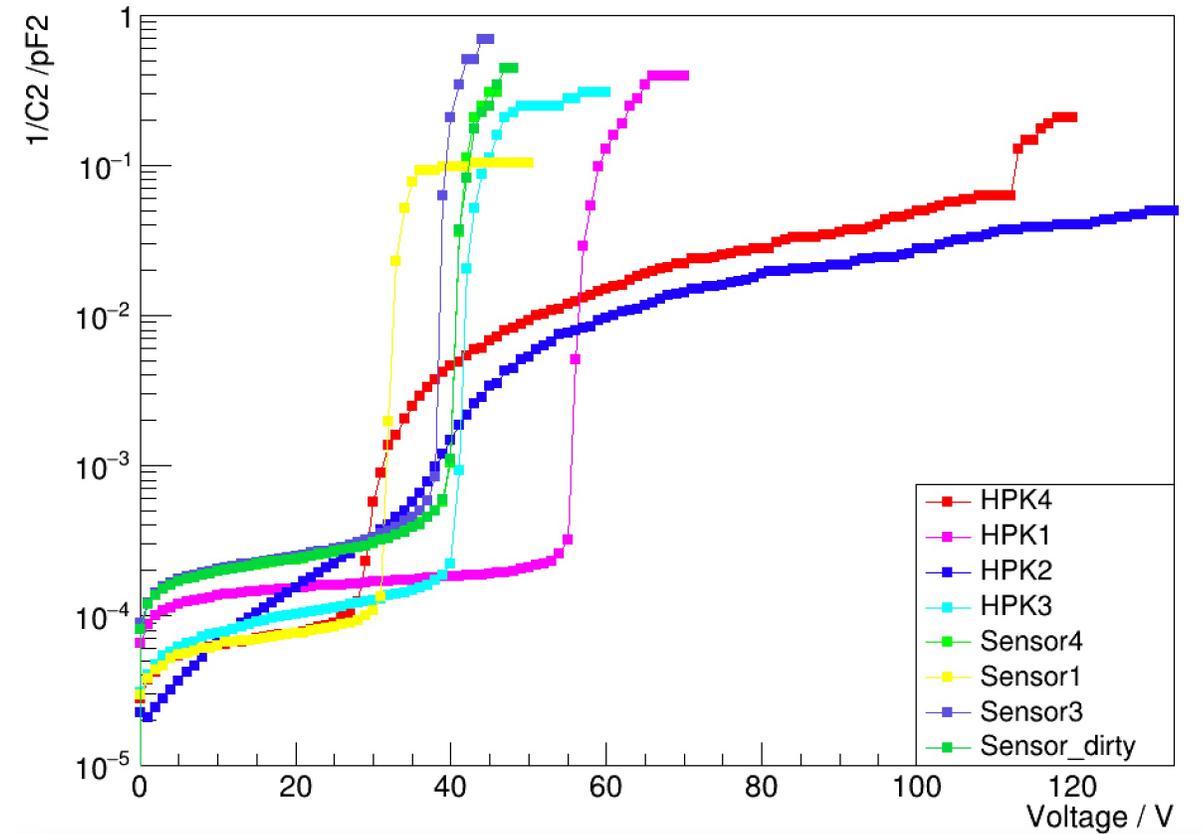
C-V test results



Sensor test



Sensor test



After recalibration, the measurement of small capacitance has been significantly improved

Thanks !

