



TID study - 1KGy Dose

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Irradiation experiment

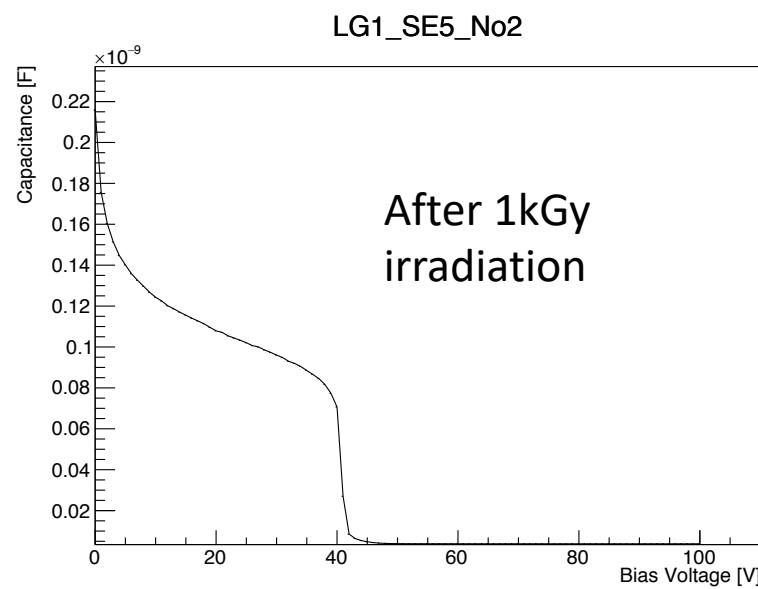
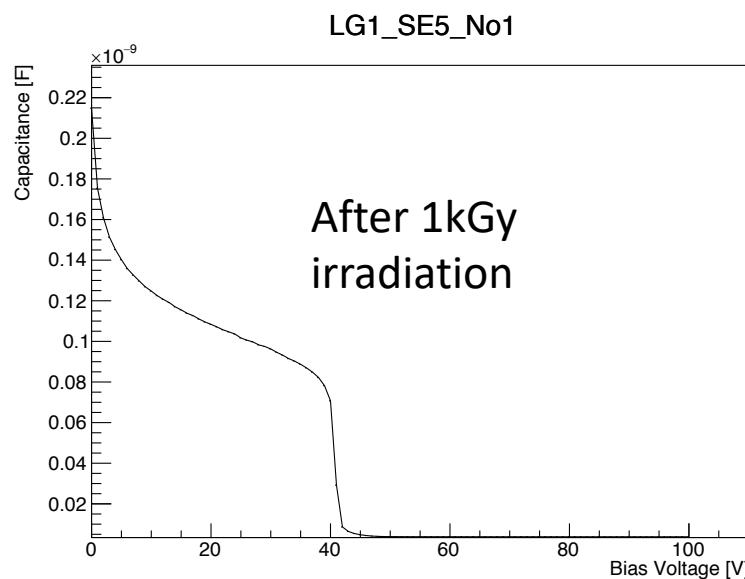


- **Equipment:** MultRad160
 - Dose rate: 30Gy/min
 - Filter: 0.5mm Al
 - Dose: 1kGy
- **Temperature:** 19 Celsius
- **Sensor type:**
 - W17 T3-2 single pad with UBM LG1_SE5 (2)
 - W4 T3-1 single pad with UBM LG1_SE5 (2)

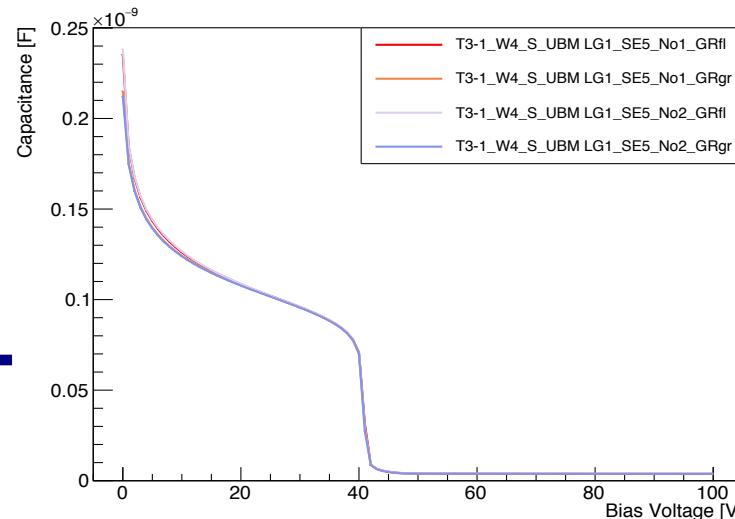


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- Electrical Character test before and after irradiation

CV - W4 T3.1 LG1_SE5



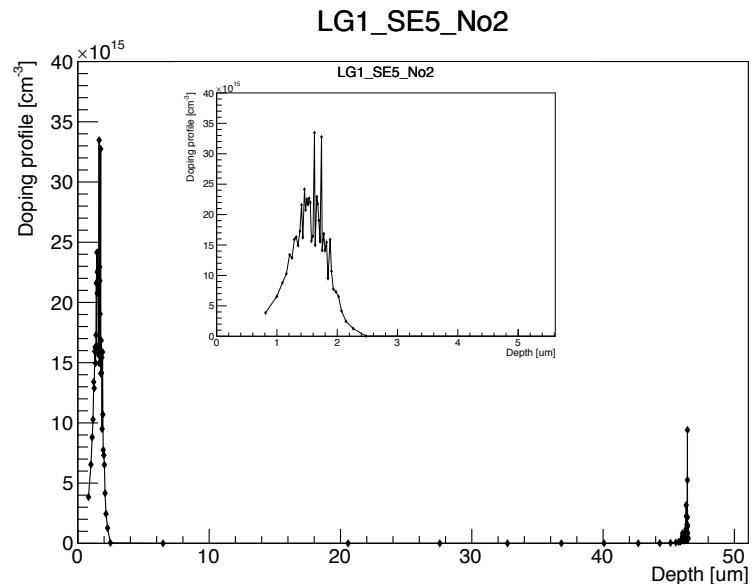
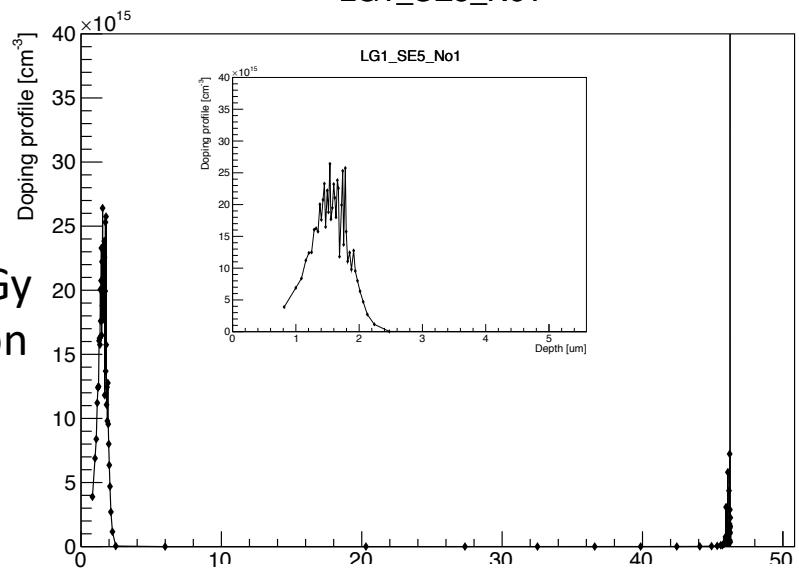
With 0 Gy
irradiation



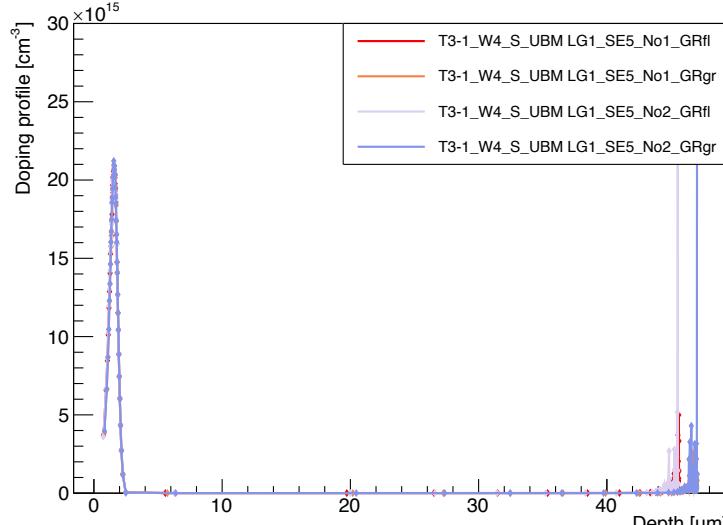
Doping profile - W4 T3.1 LG1_SE5



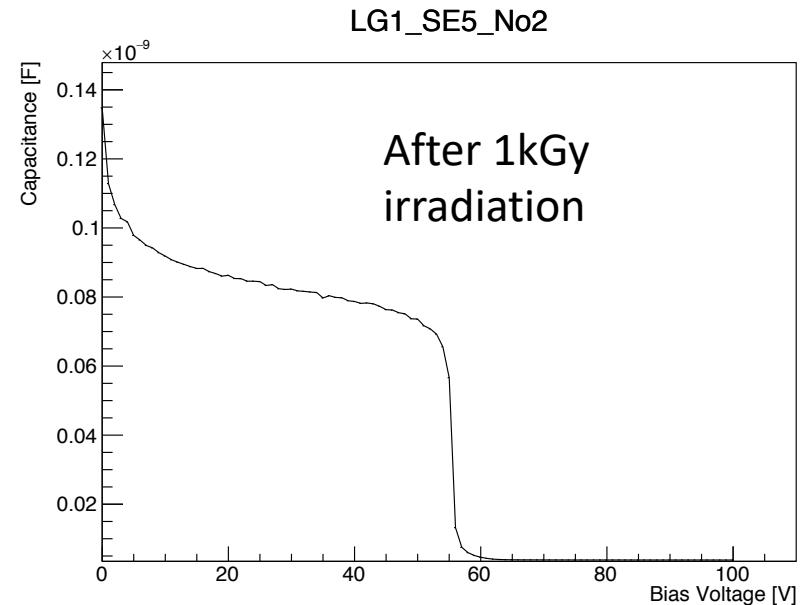
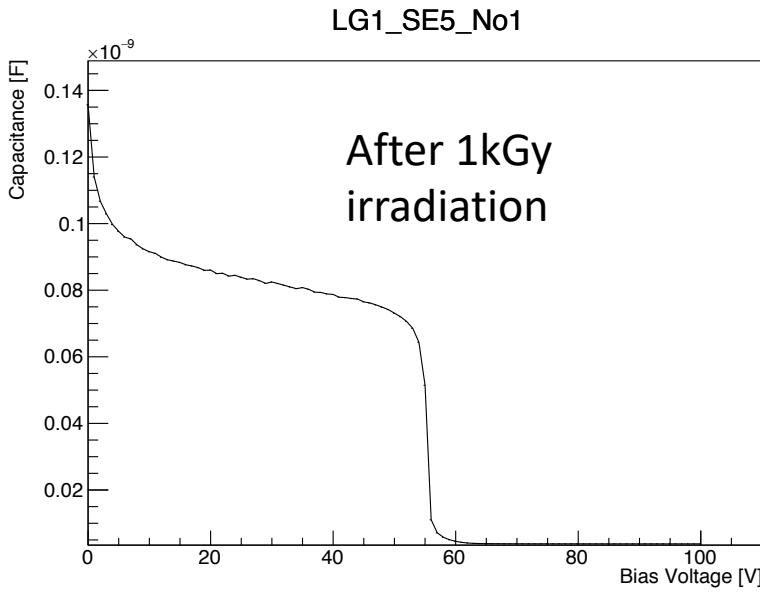
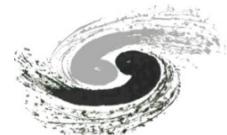
After 1kGy
irradiation



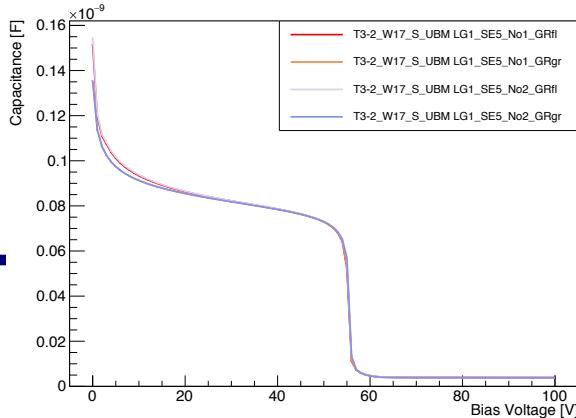
With 0 Gy
irradiation



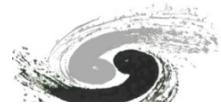
W17 T3.2 LG1_SE5



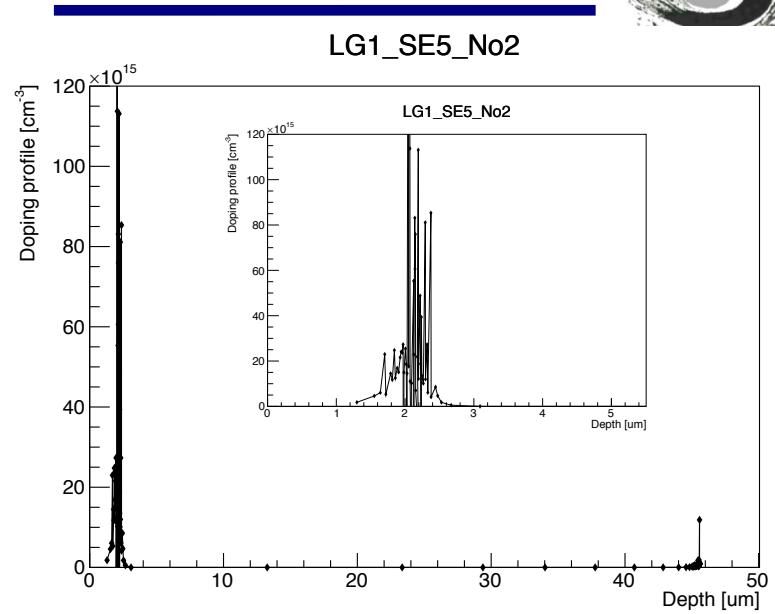
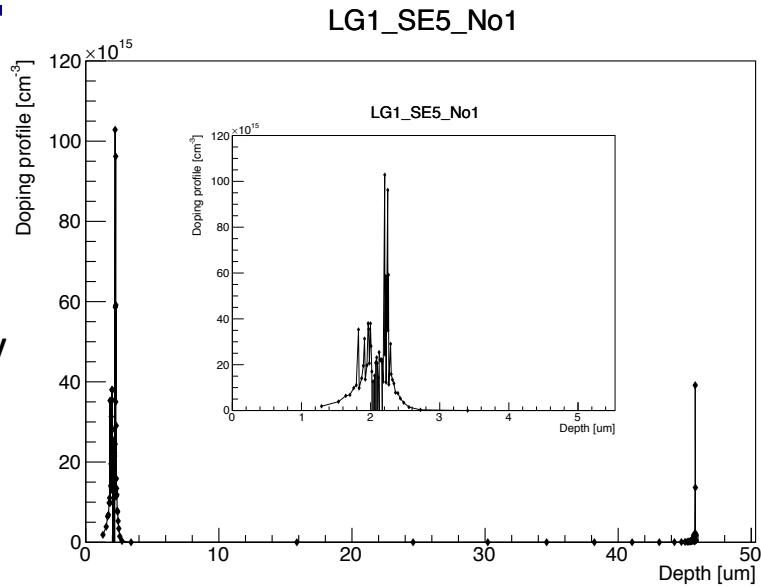
With 0 Gy irradiation



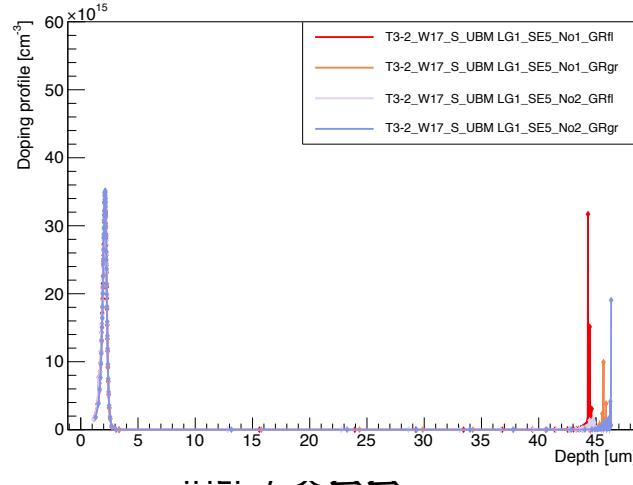
W17 T3.2 LG1_SE5



After 1kGy
irradiation



With 0 Gy
irradiation



10kGy radiation experiments



- **Equipment:** MultRad160
 - Dose rate: 30Gy/min
 - Filter: 0.5mm Al
 - Dose: 10kGy
 - **Temperature:** 20-26 Celsius
 - **Time:** 2 days
 - **Sensor type:**
 - W17 T3-2 single pad with UBM LG1_SE5 (2)
 - W4 T3-1 single pad with UBM LG1_SE5 (2)
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0.09mm Al Filter



To improve the maximum Dose rate

Thickness :
0.015mm



Maximum Dose rate : about 40 Gy/min



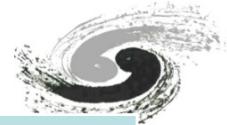
Plan



- **Test the IV and CV for the sensors after 10kGy exposure**
 - **Figure out how to get 100kGy exposure --- contact with the Northwest Institute?**
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- **Thank you !**
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	Voltage (v)	Current (mA)	Dose rate (Gy/min)
0.30mm Cu	160	25	27.490
2.00mm Al	160	25	30.198
0.50mm Al	160	25	
None	160	25	30.157