
TID study - 100KGy Dose

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2019.05.30

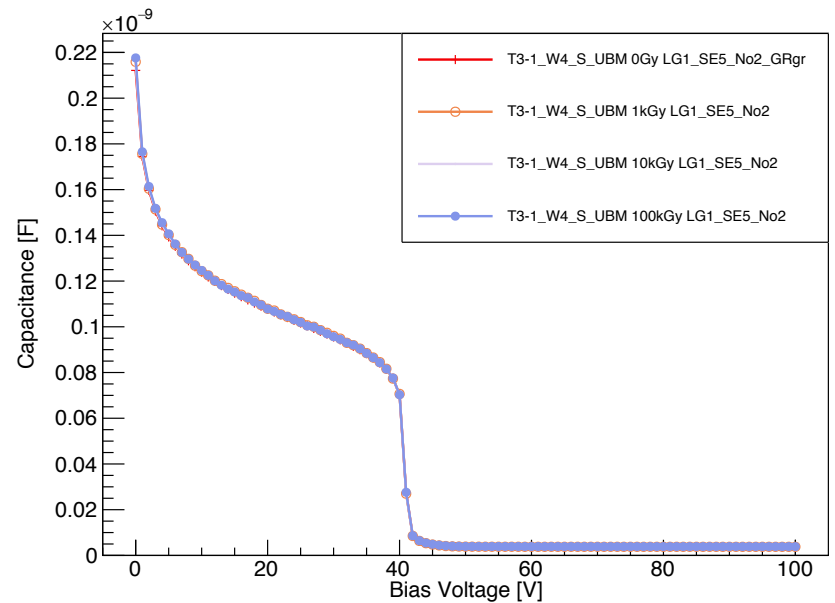
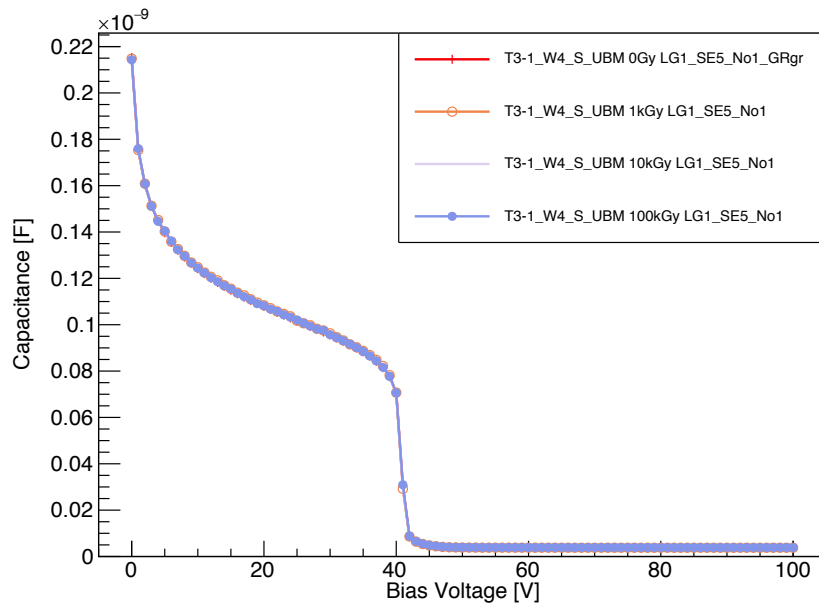


100kGy radiation experiments

- **Equipment: MultRad160**
 - Dose rate: 174.5Gy/min
 - Voltage: 160kV, Current: 15mA
 - Filter: 0.09mm Al
 - Dose: 10kGy
- **Temperature: 25-30 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)

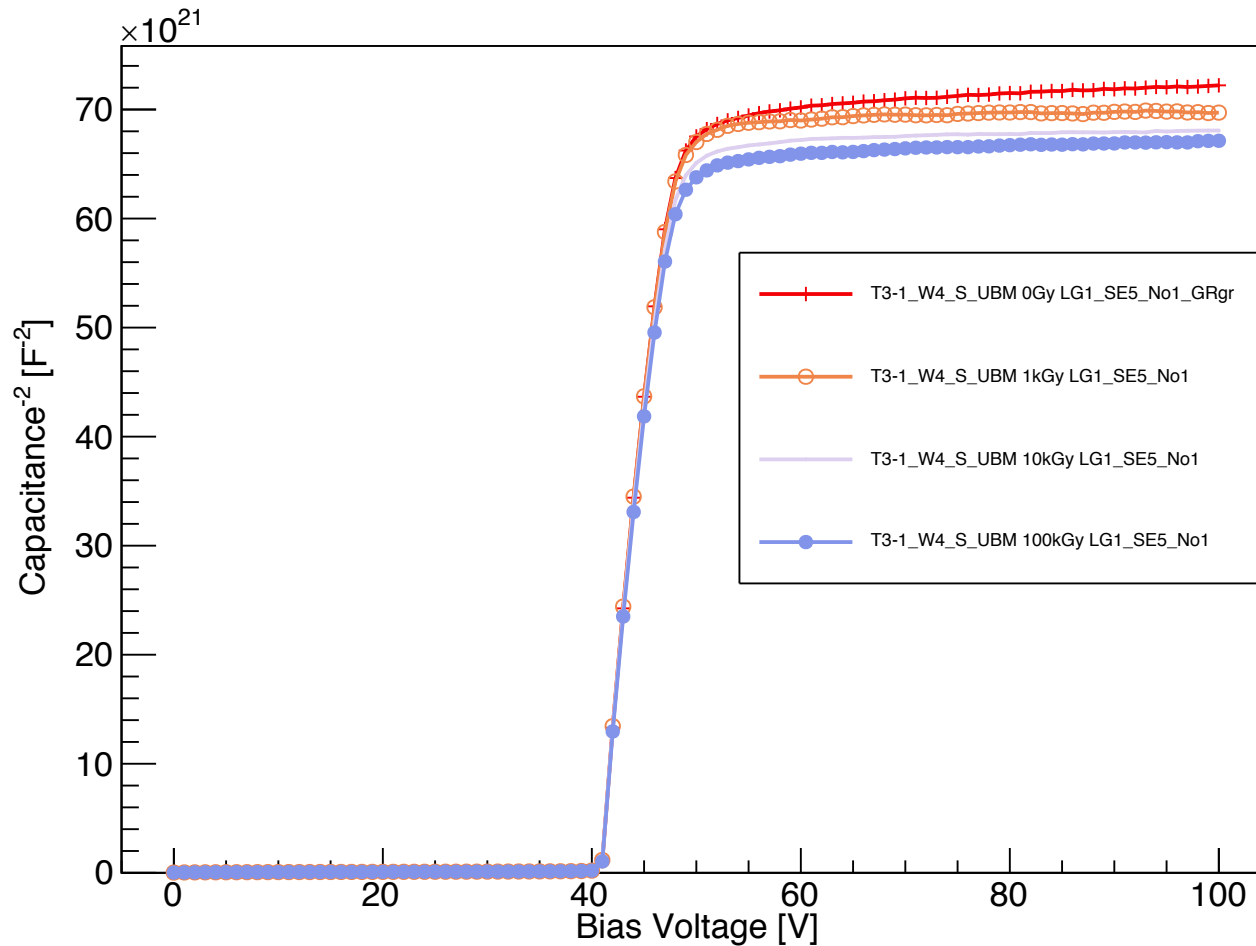


CV for W4



NO significant difference

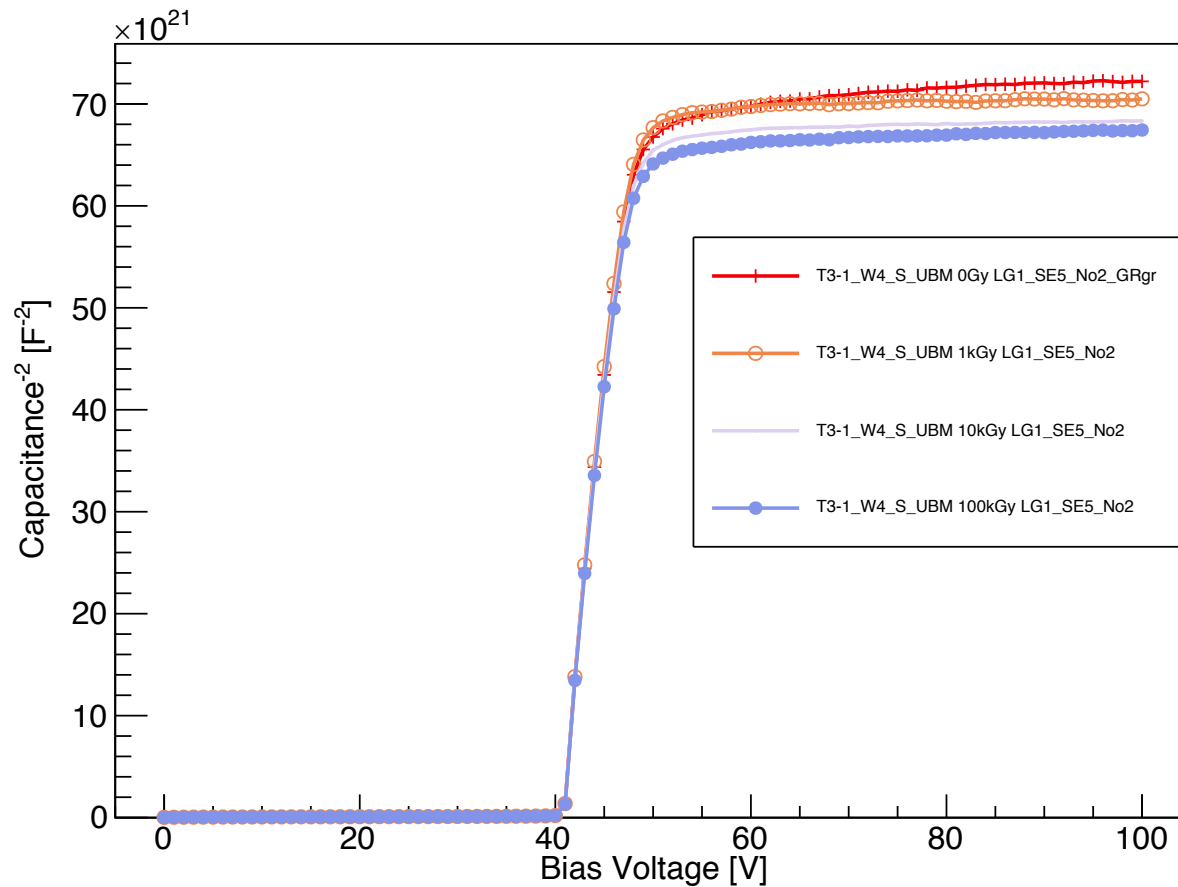
$1/C^2$ VS Bias for W4



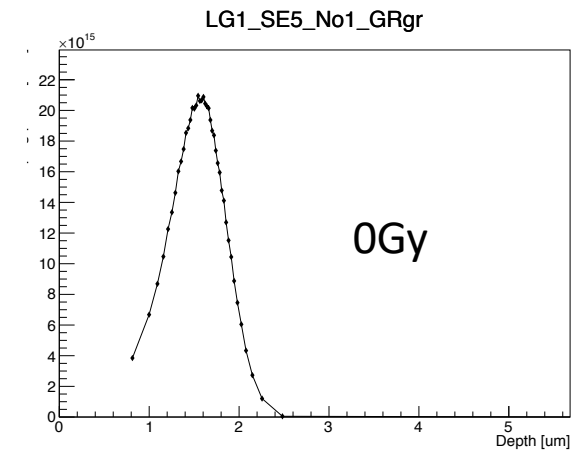
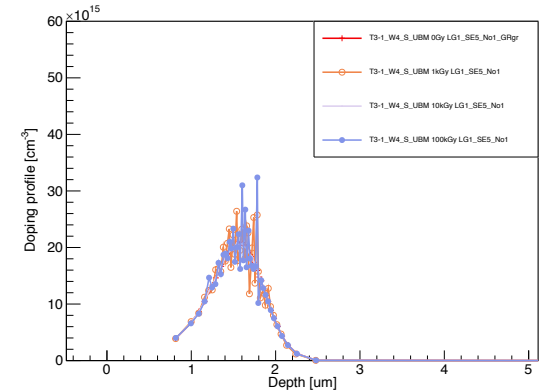
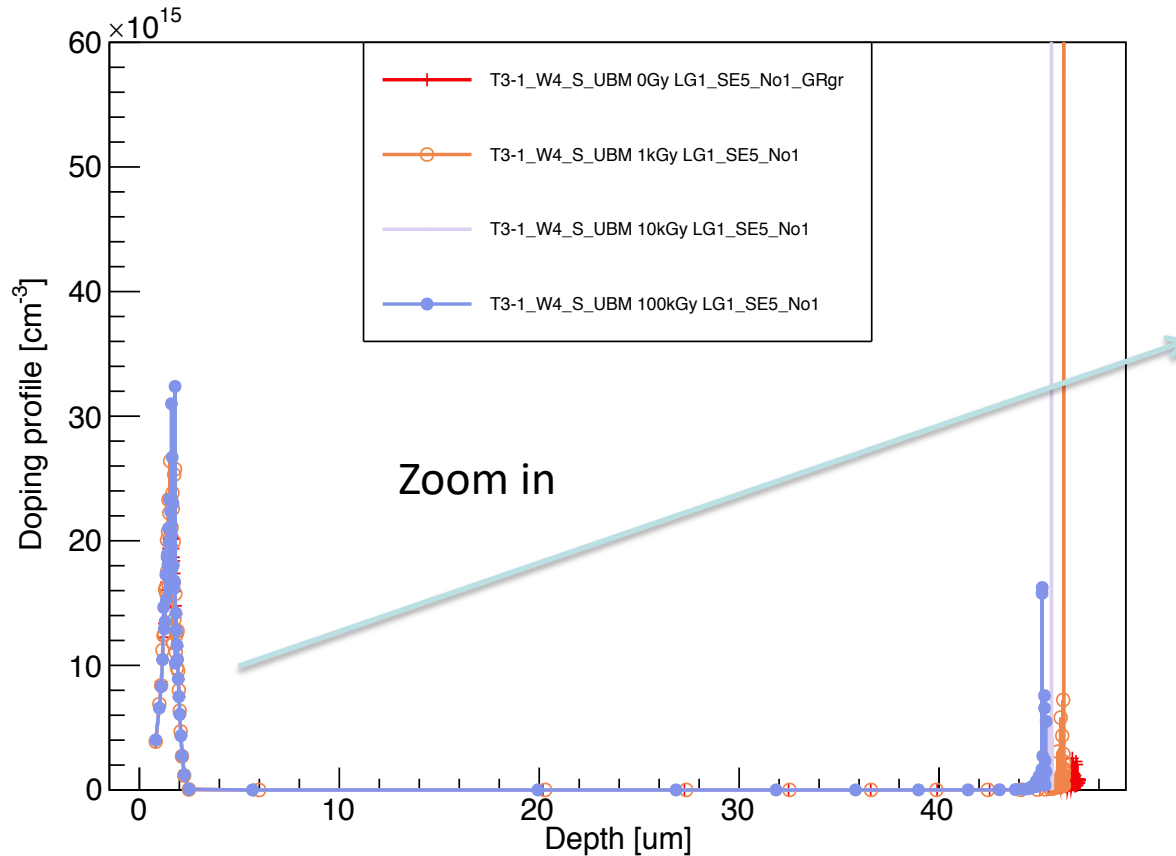
Decrease

The explanation ?

$1/C^2$ VS Bias for W4



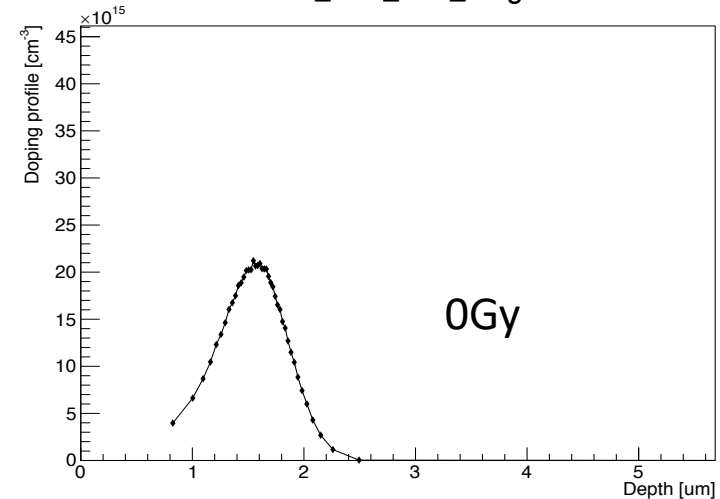
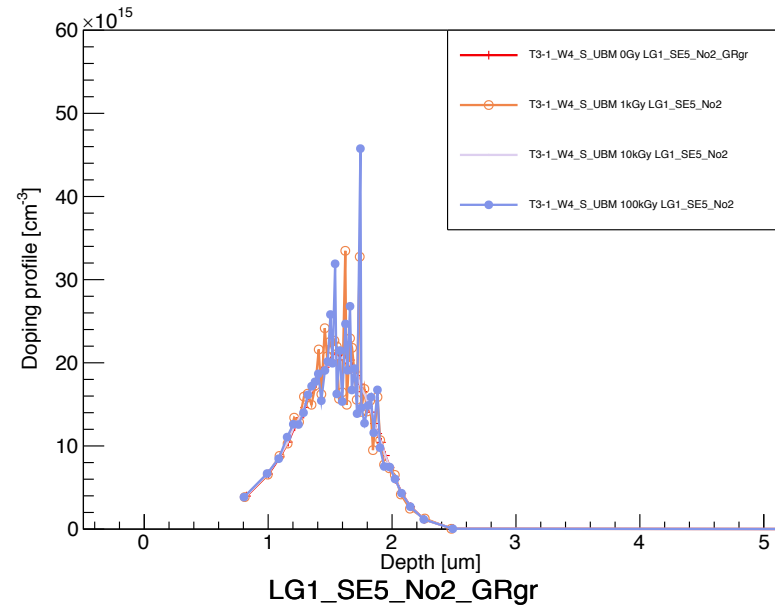
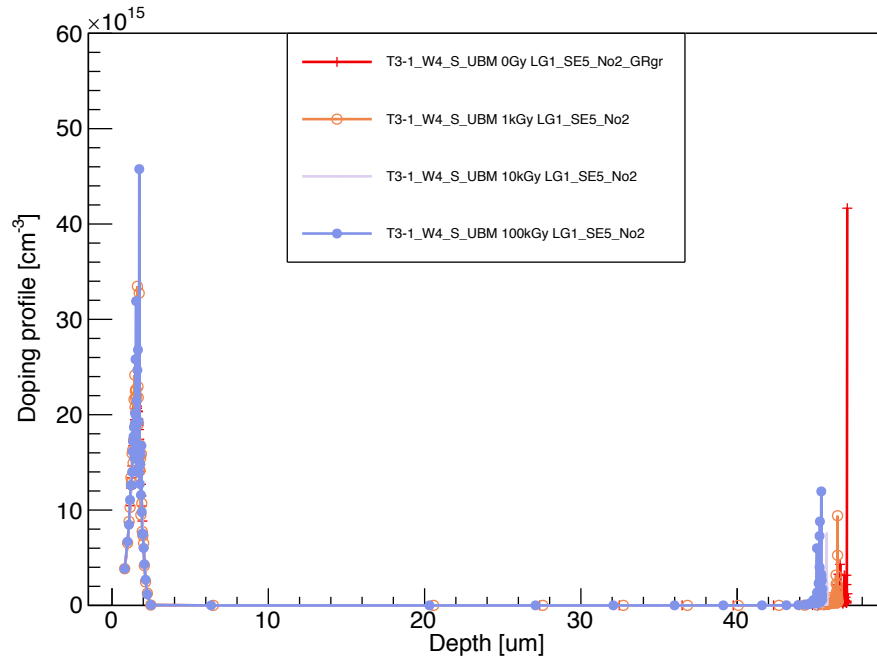
Doping profile for W4 N1



- The peak increases

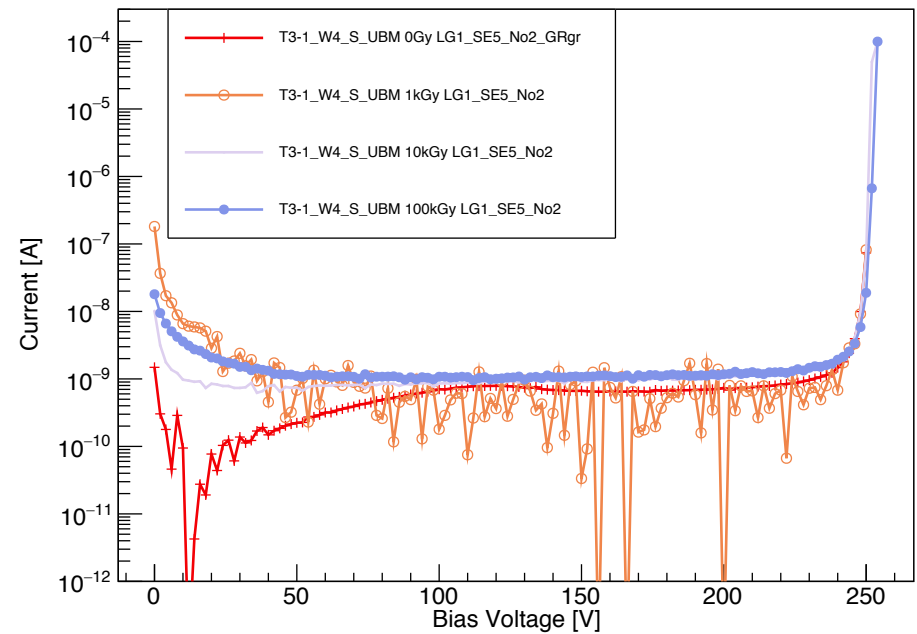
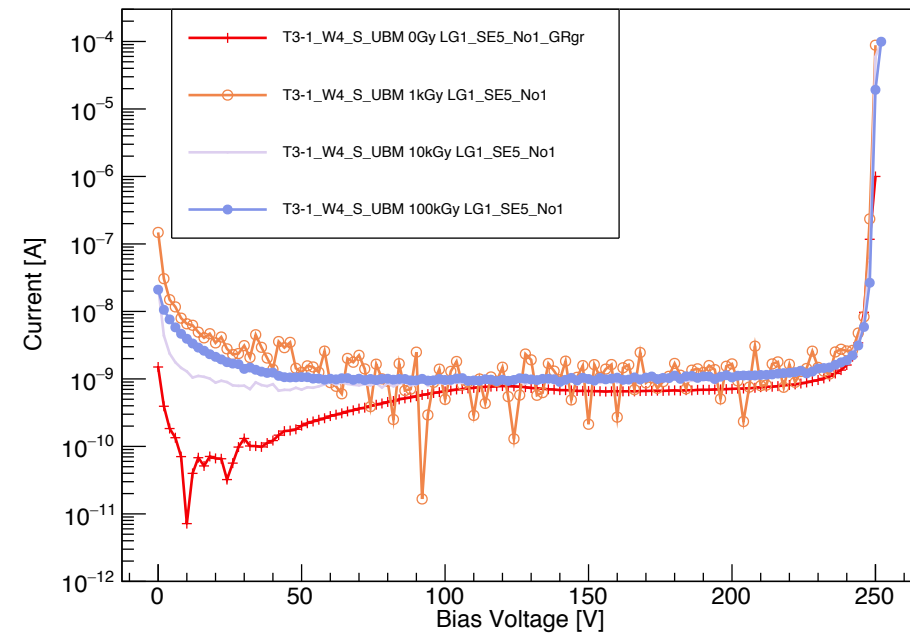


Doping profile for W4 N2



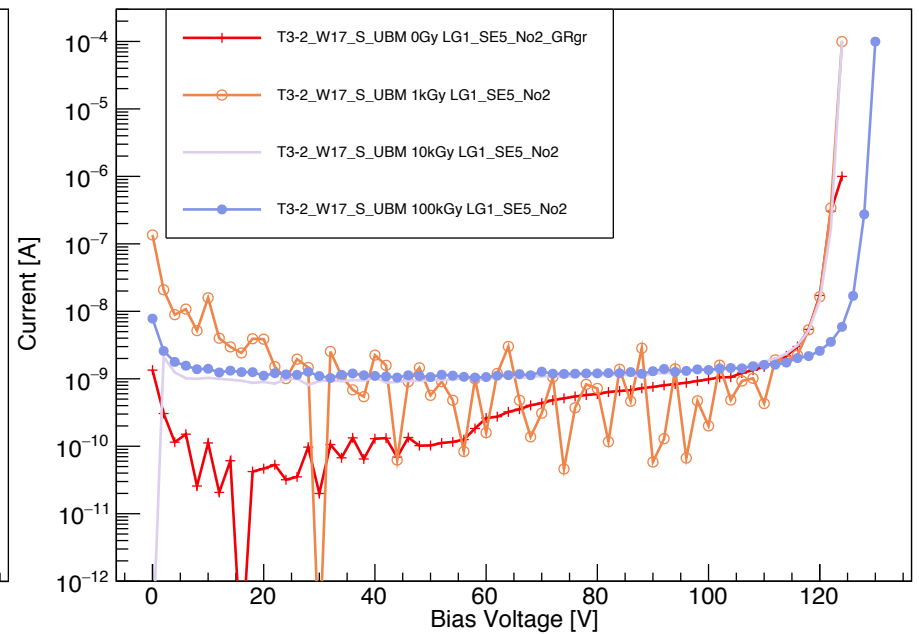
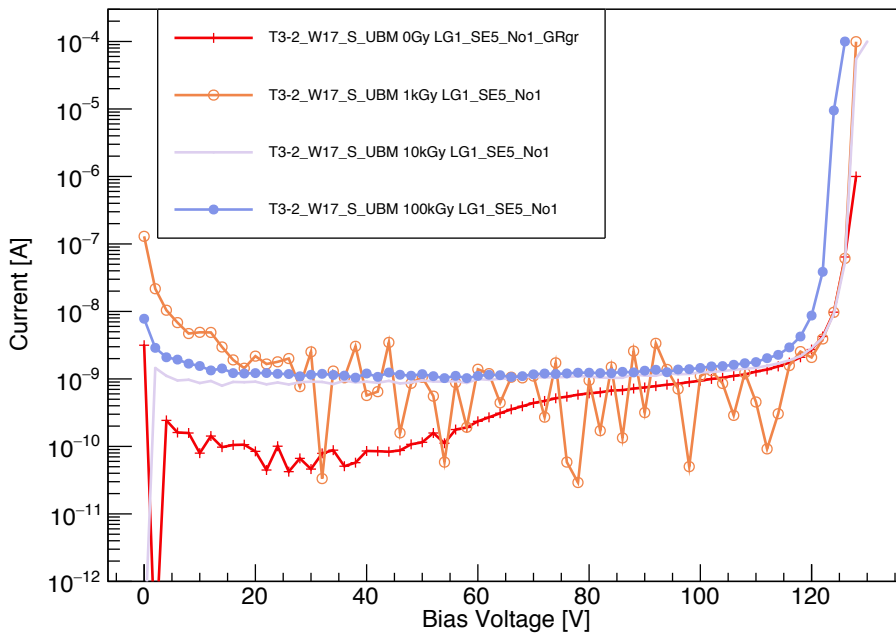
- The peak increases

IV for W4



- Breakdown voltage didn't change
- Current increases in the low bias voltage region

IV for W17



- Breakdown voltage changes: lower for N1 and higher for N2
- Current increases in the low bias voltage region.

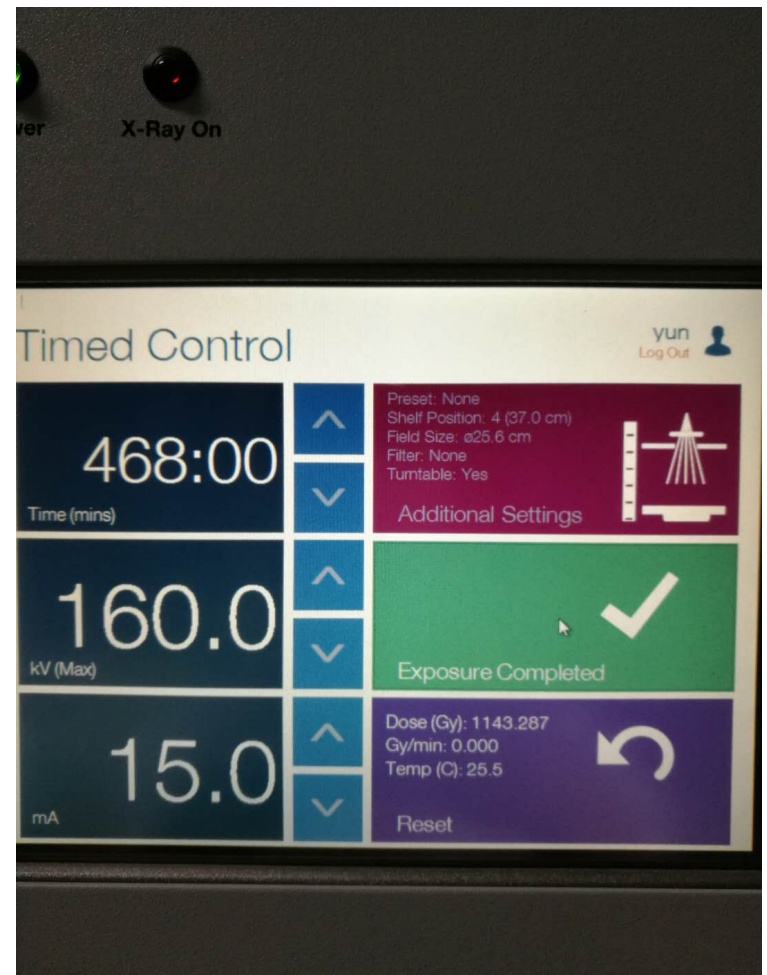
Plan

- **1MGy exposure**
- **Explain the observed effect**

Thank you for your attention !

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- Backup





W4

