Status update on New HMS Chamber

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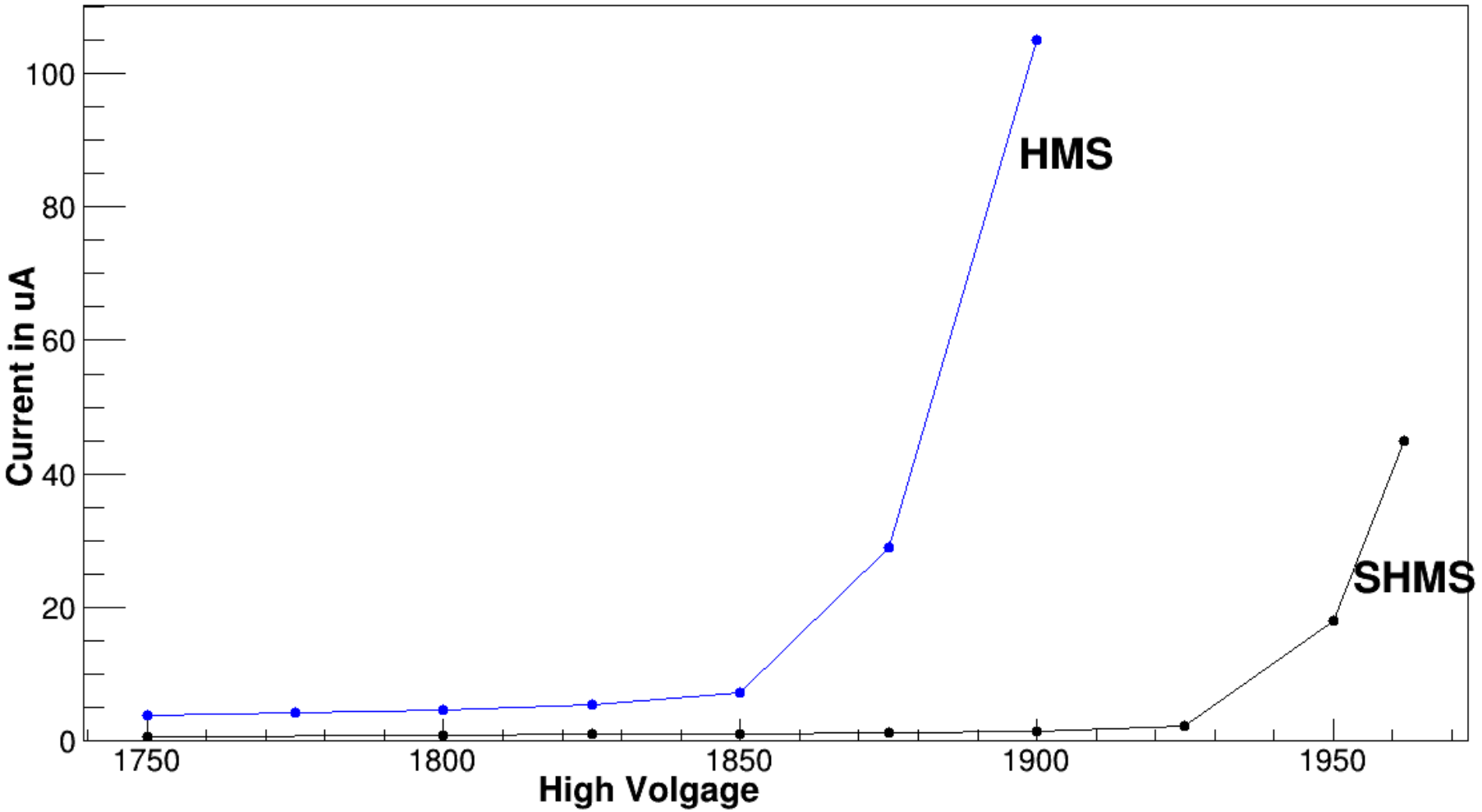
Test at TED Building

1. The chambers were shipped to TED building.
2. Chamber I is opened and repaired.
3. Chamber is closed and tested for gas and high voltage.
4. It was drawing 27-30 uA current at 1850 volt.
5. Compared with SHMS (which was in ESB) and found the same nature in case of dark current.
6. Decided to flow the mixture of Ar-Ethane instead of ArCO2.


Burnt spot

comparision between HMS and SHMS:

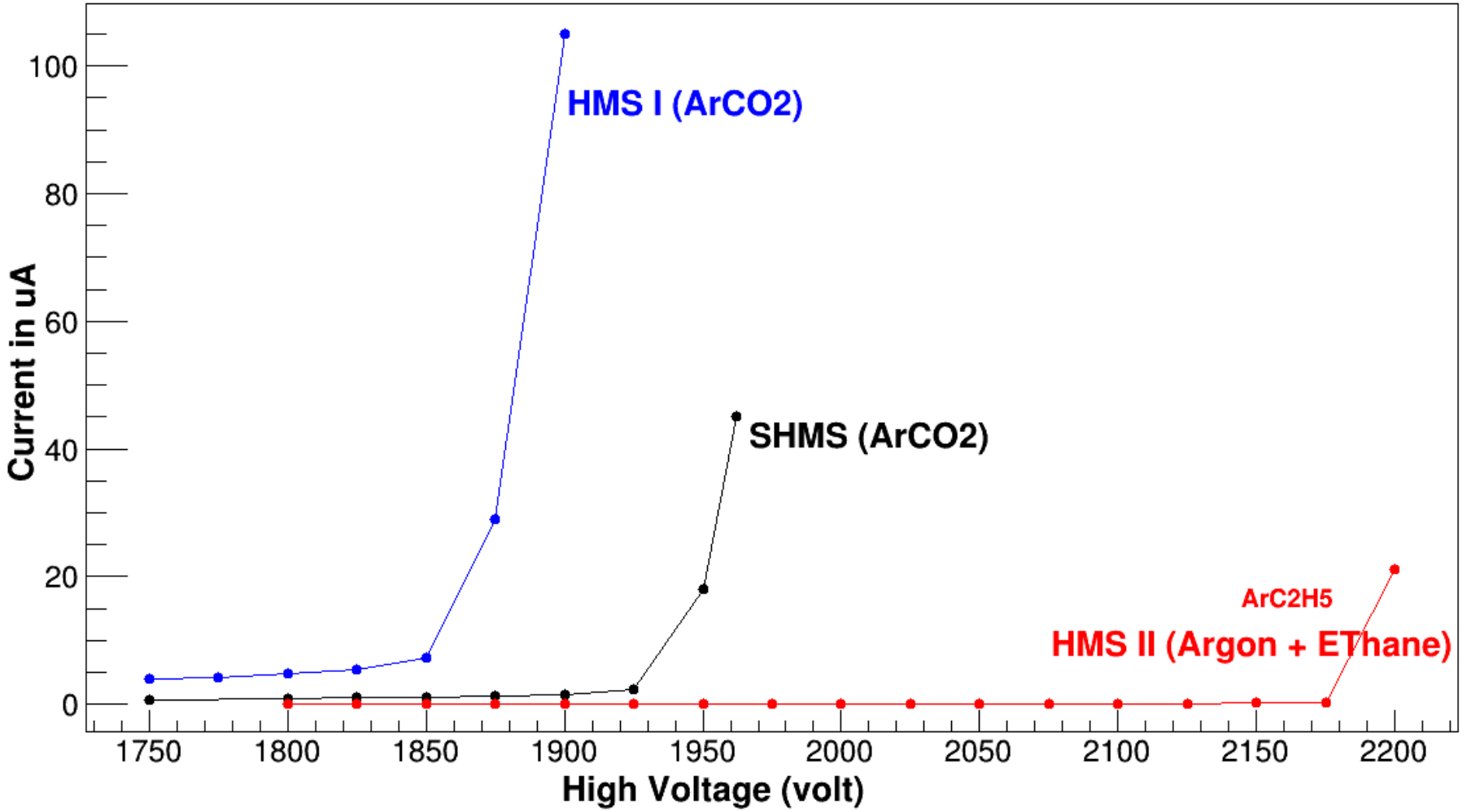



DANGER
FLAMMABLE GAS
KEEP FIRE OR FLAME AWAY
—NO SMOKING—

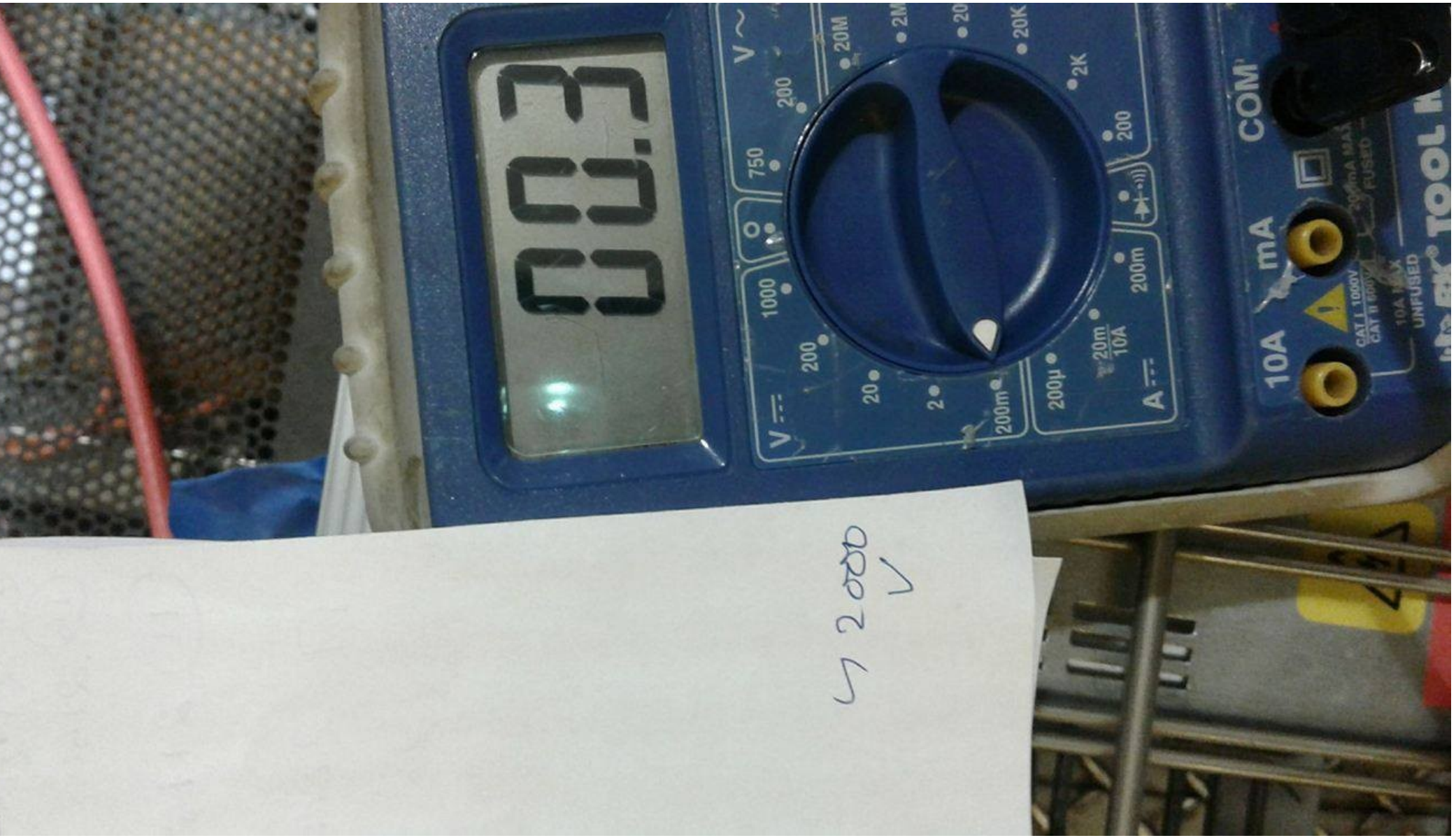
Chamber II is moved to Hall C

1. A mixture of Ar-Ethane is connected to the chamber.
2. Did the same test here in order to check the dark current.
3. Chamber is drawing ~110 nA current at 2100 volt.

comparision between HMS and SHMS:



At 2000 volt it draws 30 nA dark current



Conclusion

The chamber draws high dark current with ArCO2