

Report on weekly shift (25th Apr - 9th May)

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System status

- System currently flushing with ECO2 gas mixture
- Aging resumed after source OFF yesterday
- Resistivity measurements performed on 2nd May 2024
- HFO bottle at ~1.6 kL → ~ 1 kL left
- Report on shift and resistivity measurements

Scans

- **Stability**

- 1) 211: http://webdcsecogas.cern.ch/index.php?mod=STABILITY_GIFPP&p=dqm&id=211
→ Stopped for resistivity measurements
- 2) 212: http://webdcsecogas.cern.ch/index.php?mod=STABILITY_GIFPP&p=dqm&id=212
→ Stopped due to source off on Wednesday
- 3) 213: http://webdcsecogas.cern.ch/index.php?mod=STABILITY_GIFPP&p=dqm&id=213
→ Started this morning

- **Ar scans**

- 1) 849: <http://webdcsecogas.cern.ch/index.php?mod=HVSCAN&p=dqm&id=849>
- 2) 850: <http://webdcsecogas.cern.ch/index.php?mod=HVSCAN&p=dqm&id=850>

- **Source off**

- **Before resuming aging after TB**

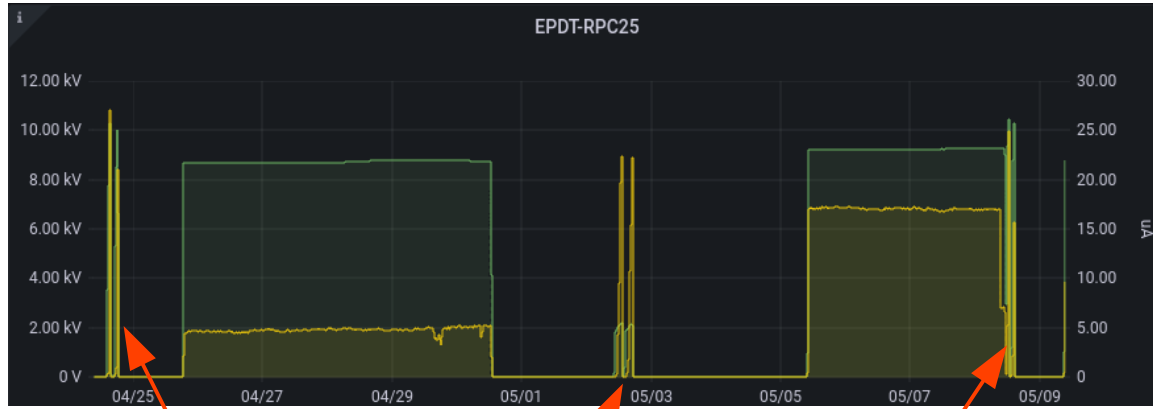
- 1) 847: <http://webdcsecogas.cern.ch/index.php?mod=HVSCAN&p=dqm&id=847>
- 2) 848: <http://webdcsecogas.cern.ch/index.php?mod=HVSCAN&p=dqm&id=848>

- **After aging and Ar scans**

- 3) 851: <http://webdcsecogas.cern.ch/index.php?mod=HVSCAN&p=dqm&id=851>
- 4) 852: <http://webdcsecogas.cern.ch/index.php?mod=HVSCAN&p=dqm&id=852>

Stability results - 1

EPDT-RPC 25 @ 9.5 kV



847, 848 source off
before aging

851, 852 source off after
aging

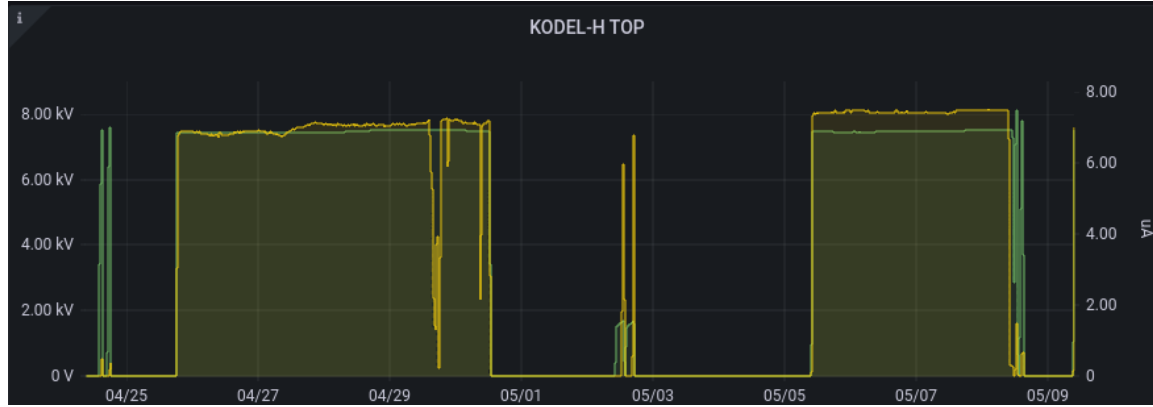
849, 850 Ar scans

SHiP 25 @ 8.8 kV

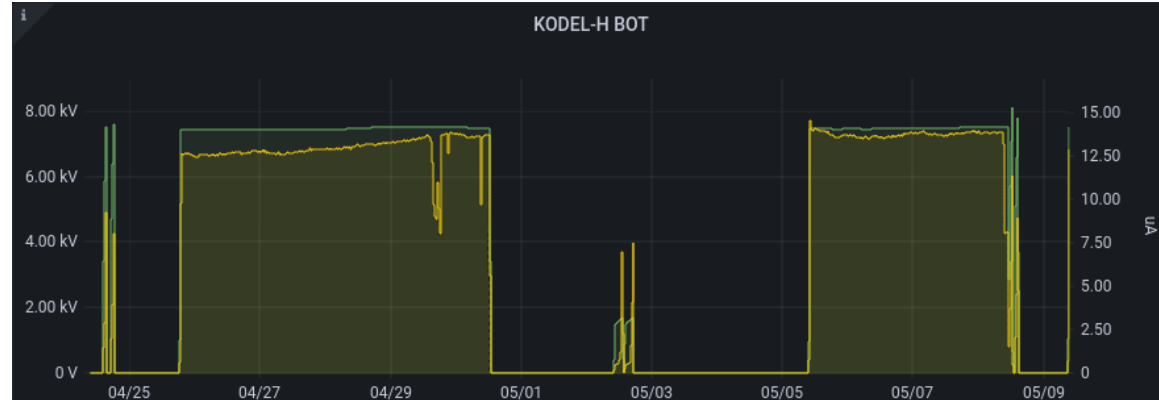


Stability results - 2

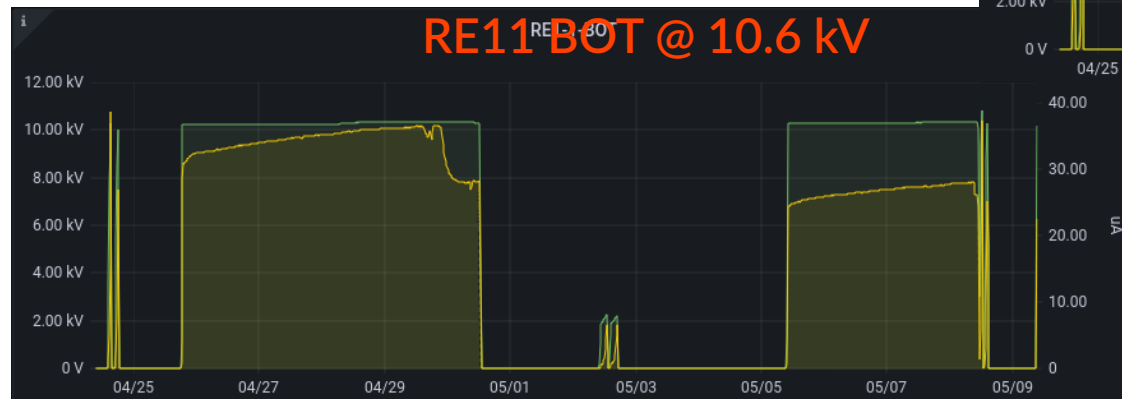
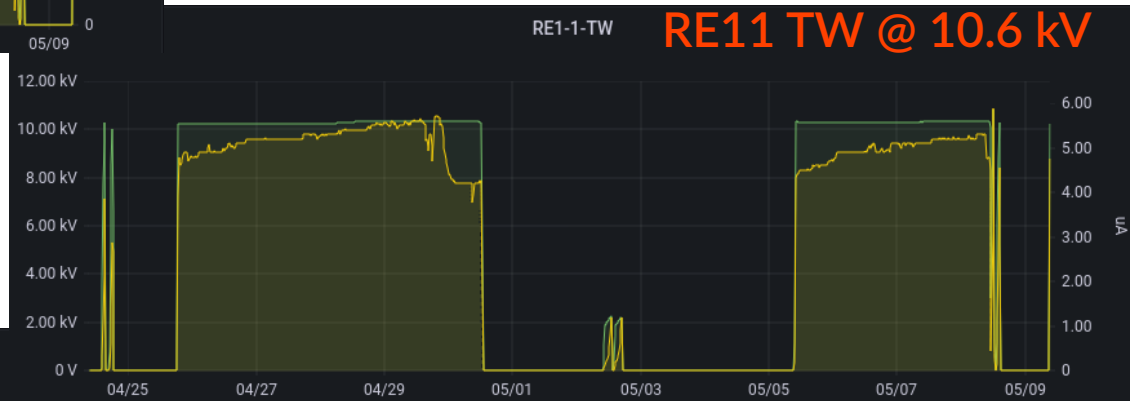
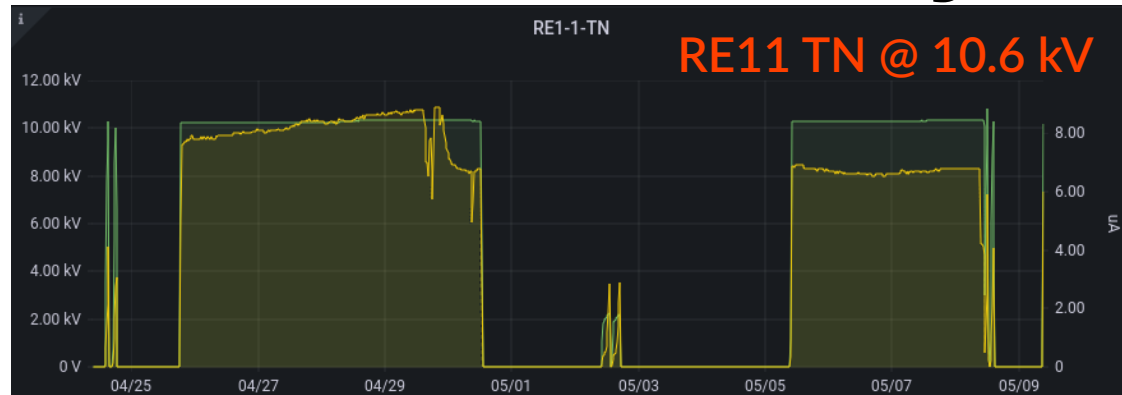
KODEL-H TOP @ 7.7 kV



KODEL-H BOT @ 7.7 kV



Stability results - 3



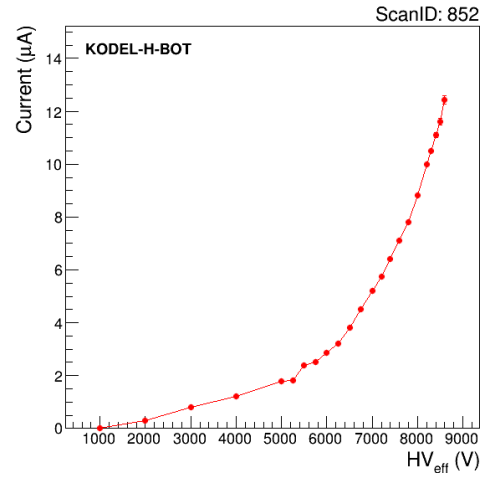
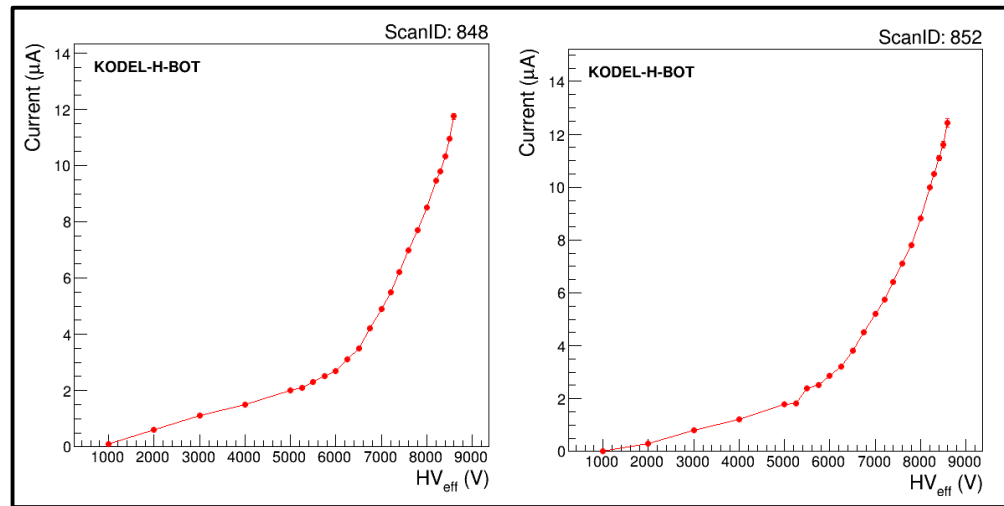
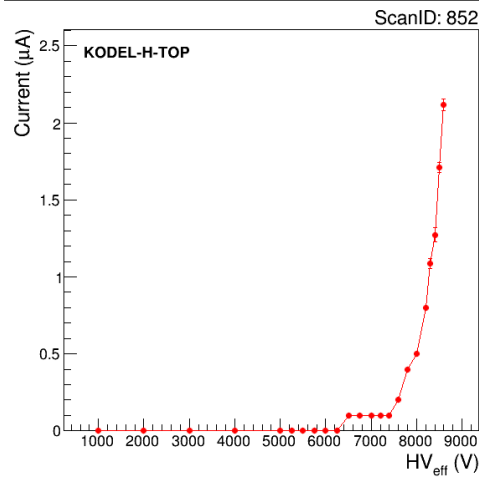
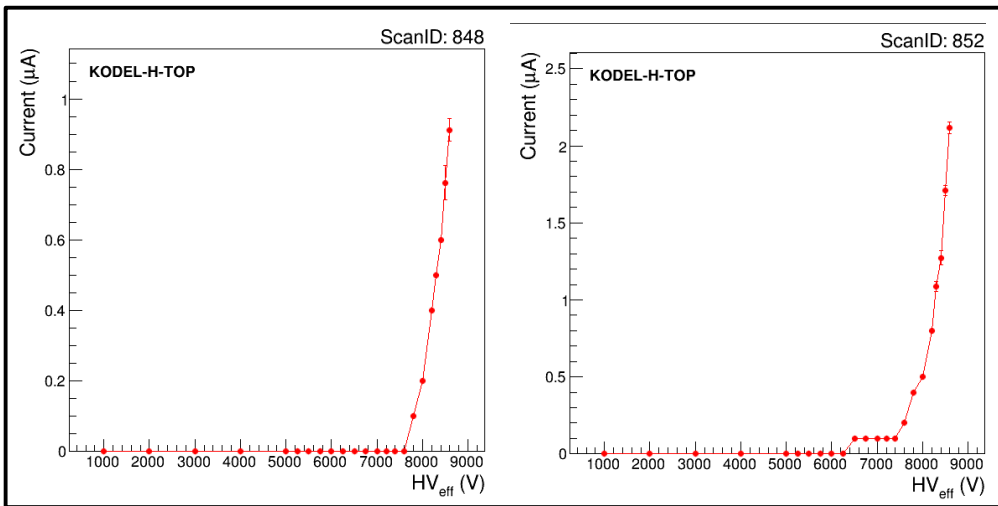
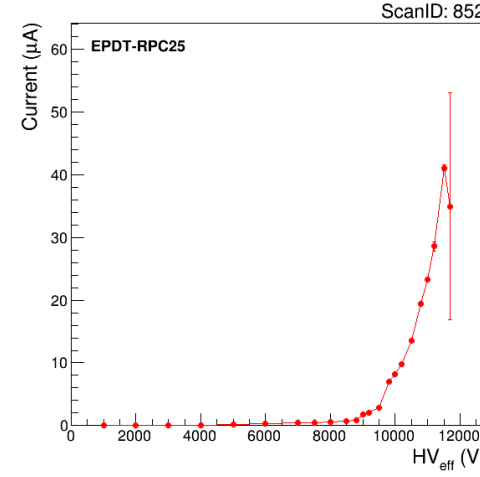
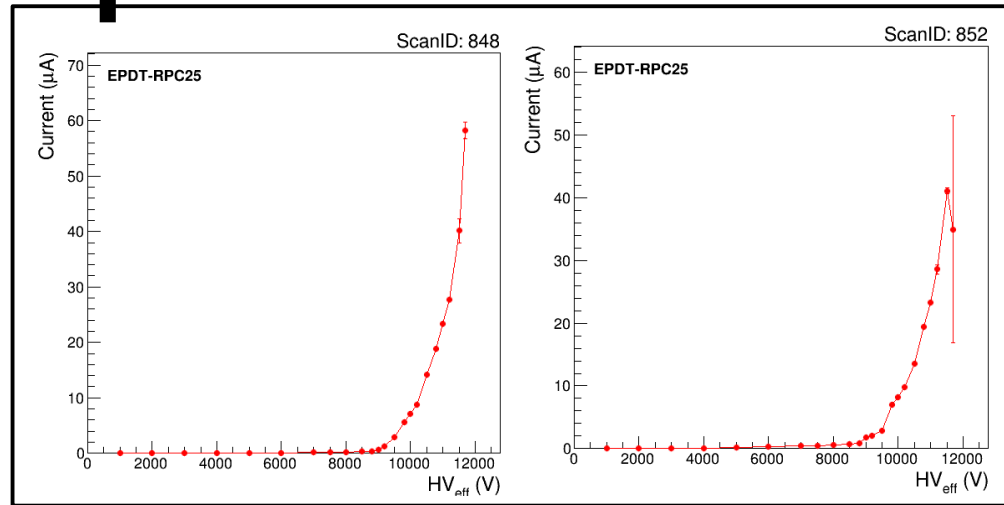
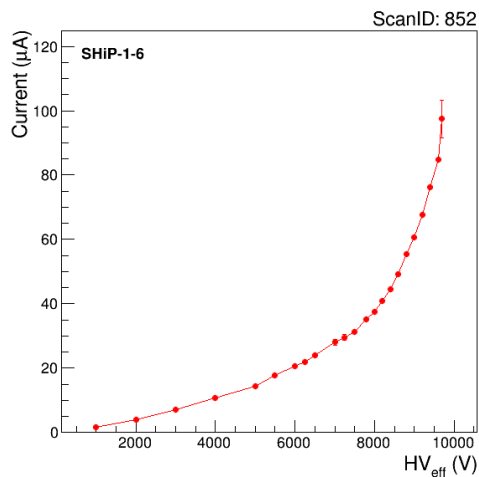
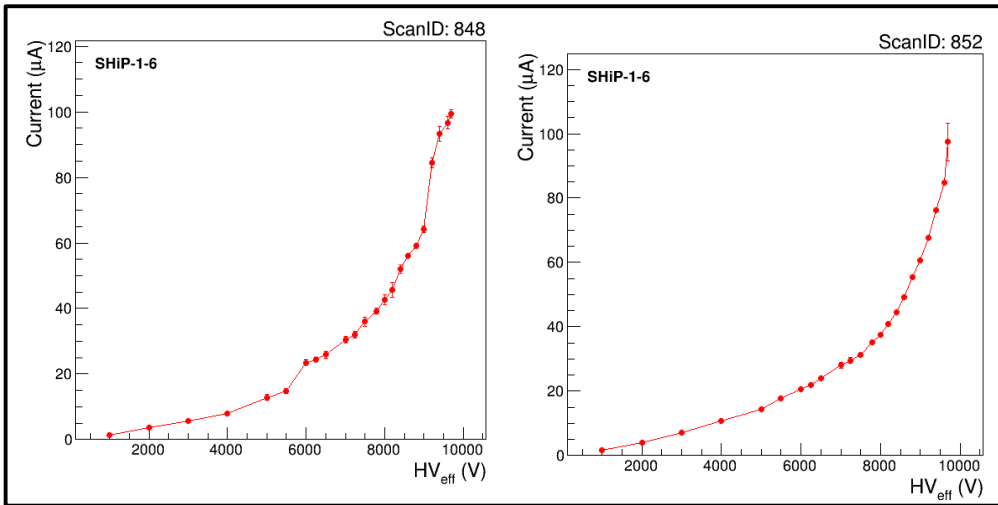
Stability results - 4

ALICE-2-1 @ 10.6 kV

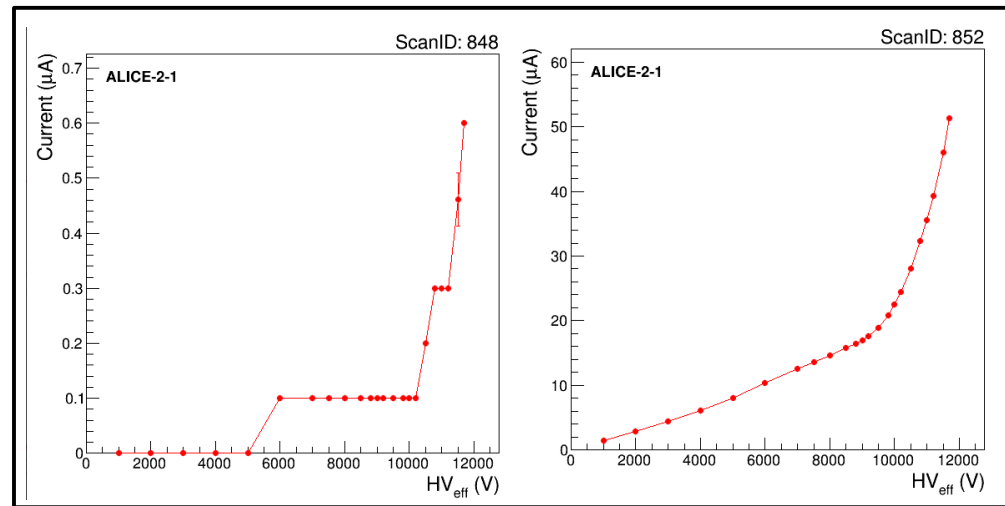
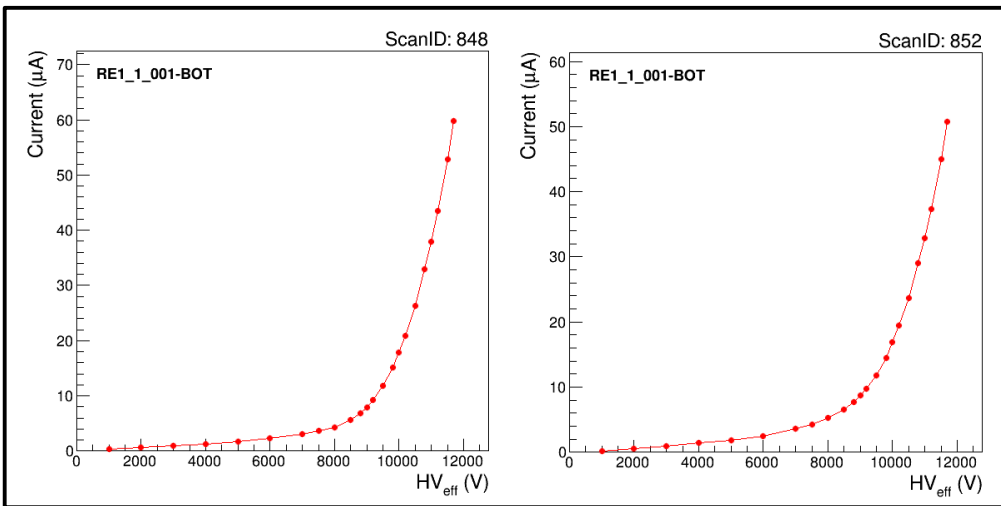
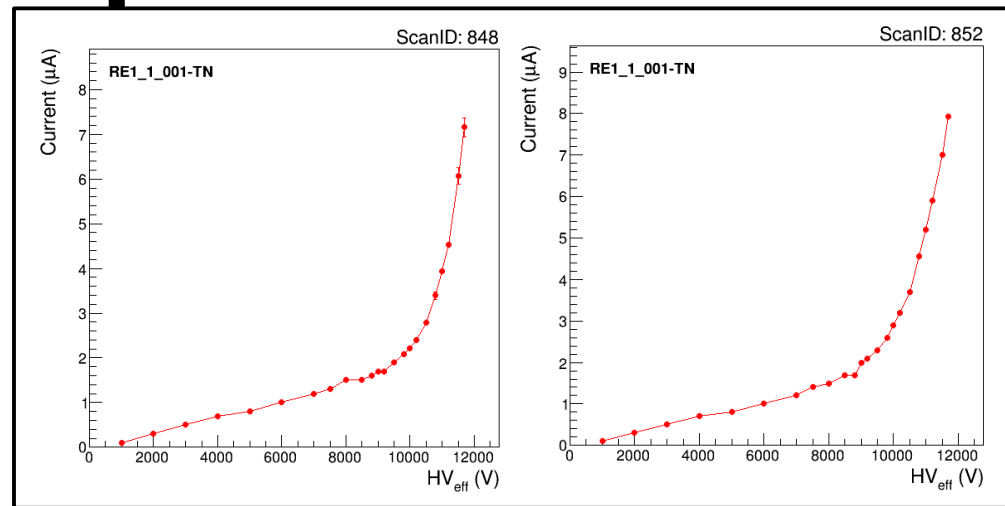
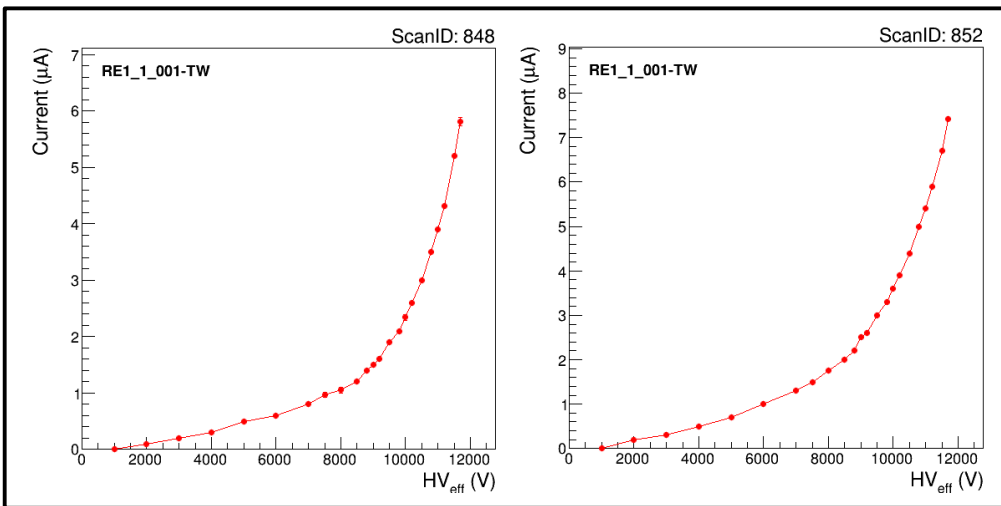


- Brand new RPC
- We know the RPC might have some issues from the tests we did in Torino
- Aging even if the current is drifting in time

Source off comparison - 1



Source off comparison - 3



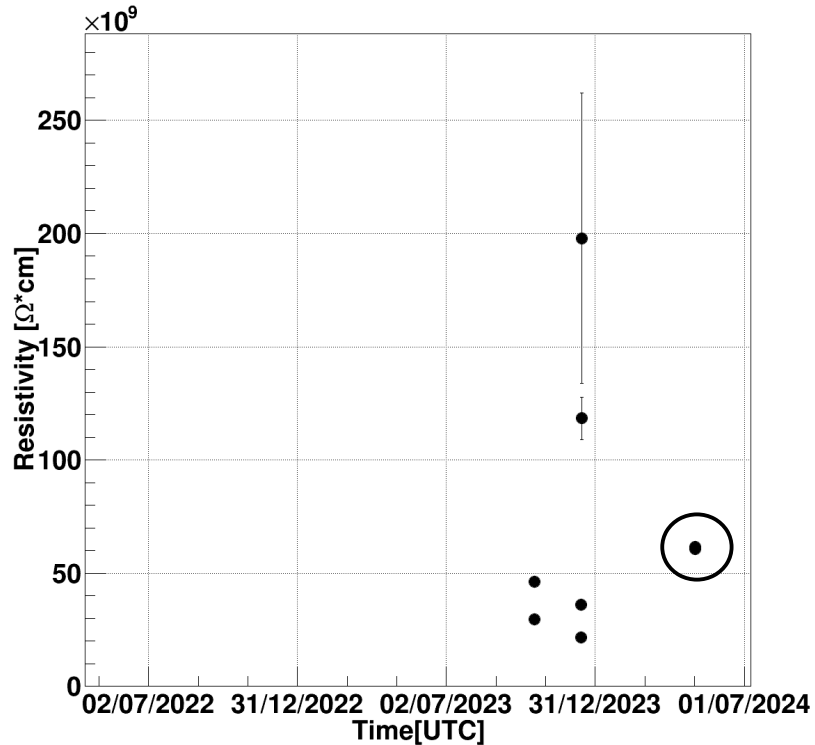
Resistivity trend - 1

- Error on the mean for the current
- Fit up to the minimum of chi square + 1 point

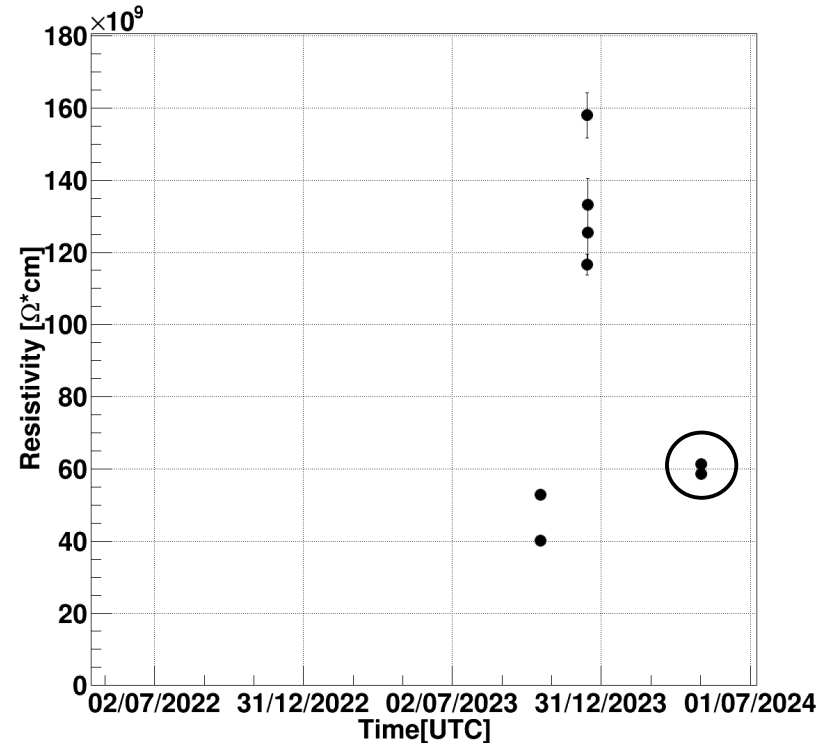


Latest measurements

KODEL-H-BOT

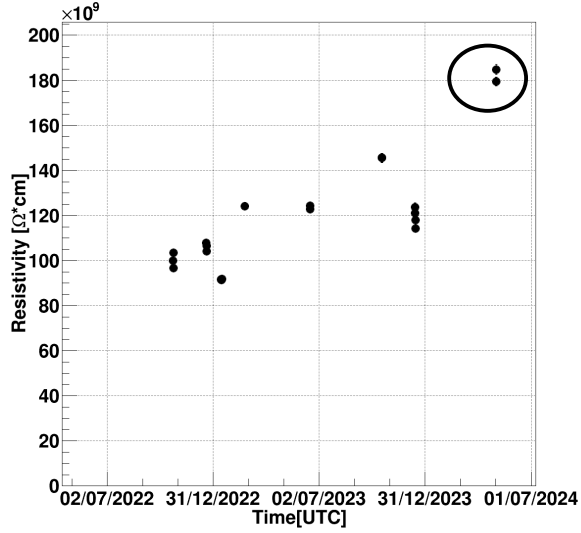


KODEL-H-TOP



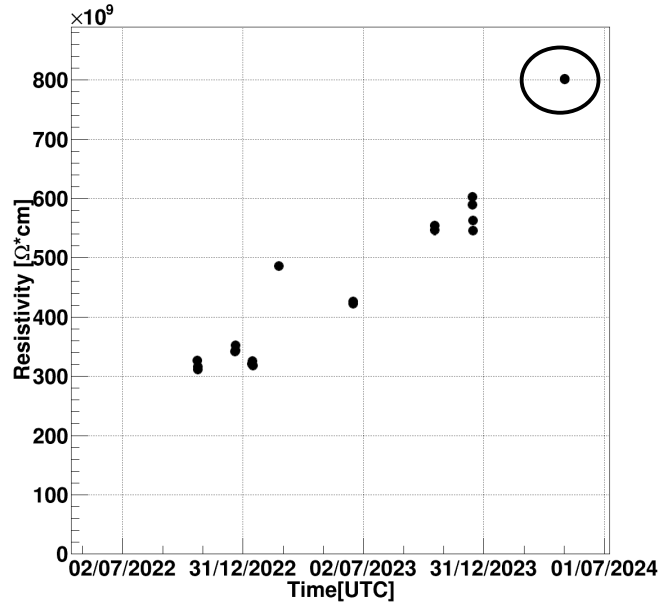
Resistivity trend - 2

RE1_1_001-TN

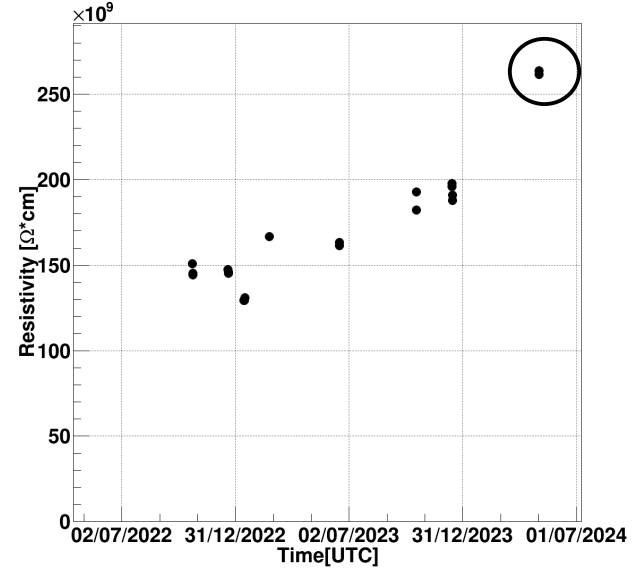


Latest measurements

RE1_1_001-TW

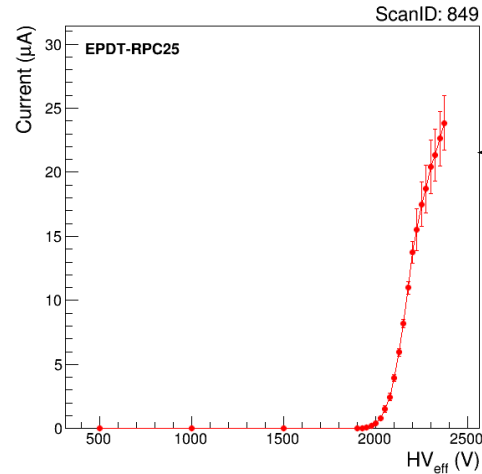
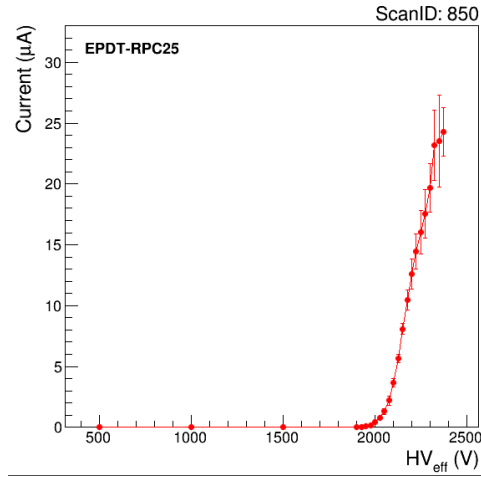
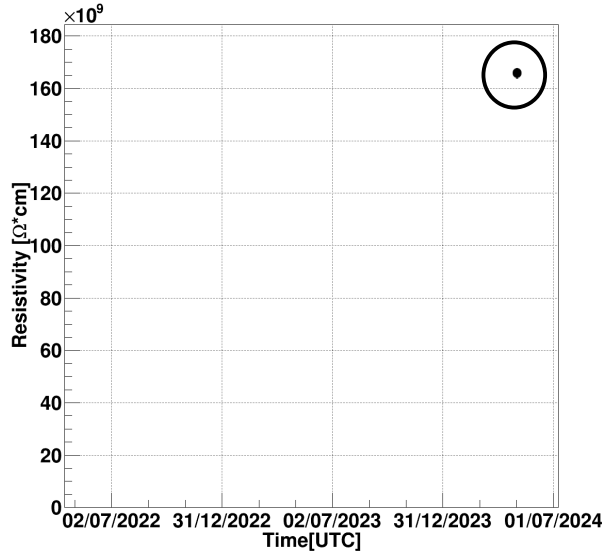


RE1_1_001-BOT

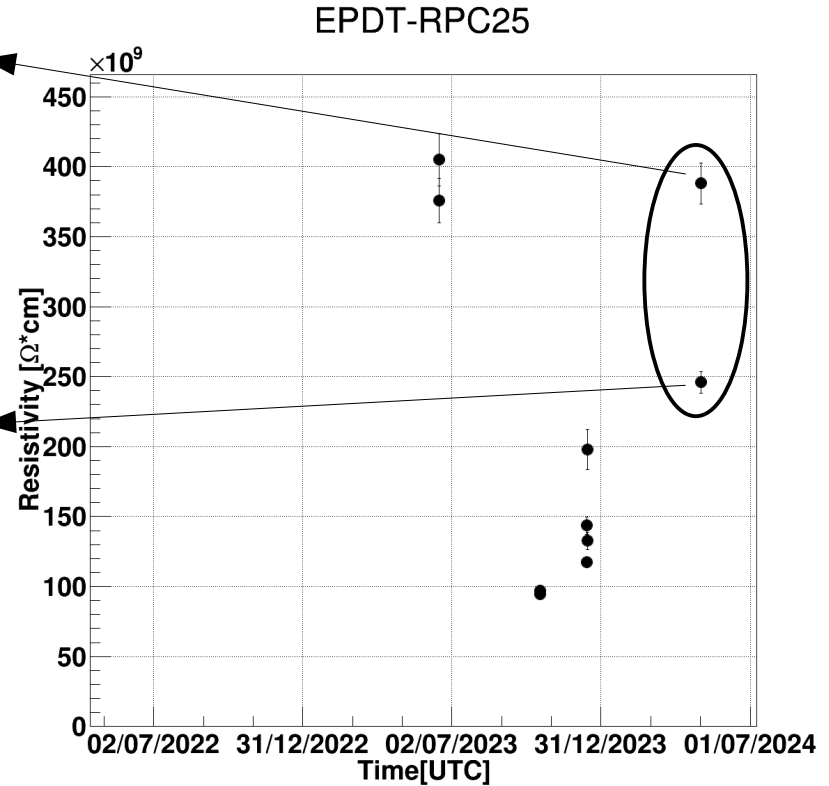


Resistivity trend - 3

ALICE-2-1



Latest measurements



Conclusions

- Aging ongoing smoothly
- ALICE new RPC has unstable currents and increase in dark current
→ Chamber has issues we know, we are monitoring
- 1 kL HFO left in the bottle
- Resistivity measurements performed
→ Giving more time to flush to the RPCs lead to more stable resistivity values in all chambers
→ EPDT has strange shape in $I(V)$ curve leading to fluctuating resistivity, to be checked
- Plan to continue ongoing stability scan (213)