

Studies of Purification of the LHC RPC Gas Mixture at the **GIF**

Status July 08

RG, MC

Status

- Set-up completed and fully operational
- Gas:
 - $\text{C}_2\text{H}_2\text{F}_4$ - $i\text{C}_4\text{H}_{10}$ - SF_6 [96.2-3.5-0.3] + H_2O
 - 1 volume exchange/hour
 - Open loop
- 5 CMS double gaps
- **HV On (9.2 kV), Radiation On since few days**

>>> PLOT

Immediate Plans

1. Checked chamber performance with radiation
2. Make reference Bakelite resistivity measurements
3. Set-up F-measurement and scan HF concentration VS Chamber current for different concentrations of isobutane
4. Perform detailed gas analysis of every filter individually (comparison fresh mixture VS purified mixture). Check conditioning time.
5. Irradiate chambers, split equally the output gas, and cross check filters performance as planned

Filters Rack

Pickage for Analysis

Example of connection 'a la carte'

