The gas systems for
the CERN Gamma Irradiation Facility

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Gas modules at GIF++

- Mixture distribution
- Monitoring of pressure, O2/H2O, temperature, atmospheric pressure
- Additional software controlled pressure regulation for very low flow regimes
- Gas mixing unit

Gas purification cartridges
Gas modules at GIF++

The gas systems infrastructure is a key element for successful R&D programs at GIF++. New mixing units and gas recirculation modules developed and build. For GIF++, Gas team built and it is contacted for maintenance/operation of:

- 7 gas mixer modules
- 3 gas recirculation systems (for flow < 50 l/h)
- 1 gas recirculation system (for flow < 200 l/h still to be commissioned)
- 3 gas humidification modules
- 1 gas chromatograph
- 2 infrared analysers
- 10 O2 and H2O analysers
- 1 exhaust module
- 21 gas distribution panels
- regeneration of gas cleaning agents (about 10 cartridges)
- pipe work
- special gas requests (for example nC5H12, HFO, calibration bottles)
- development of interlock signals related to specific gas system conditions
Summary

Main interventions:

- refill of RPC humidifier
- GC training
- CSC small cartridges
- upgrade TGC gas system
- TGC refill
Conclusions

In conclusion:
- The GIF++ Gas systems infrastructure is comparable to a medium size experiment.
- Frequent changes related to the normal R&D activities are particularly demanding.
- Gas Team has limited resources.

- Any open question/suggestion/need?