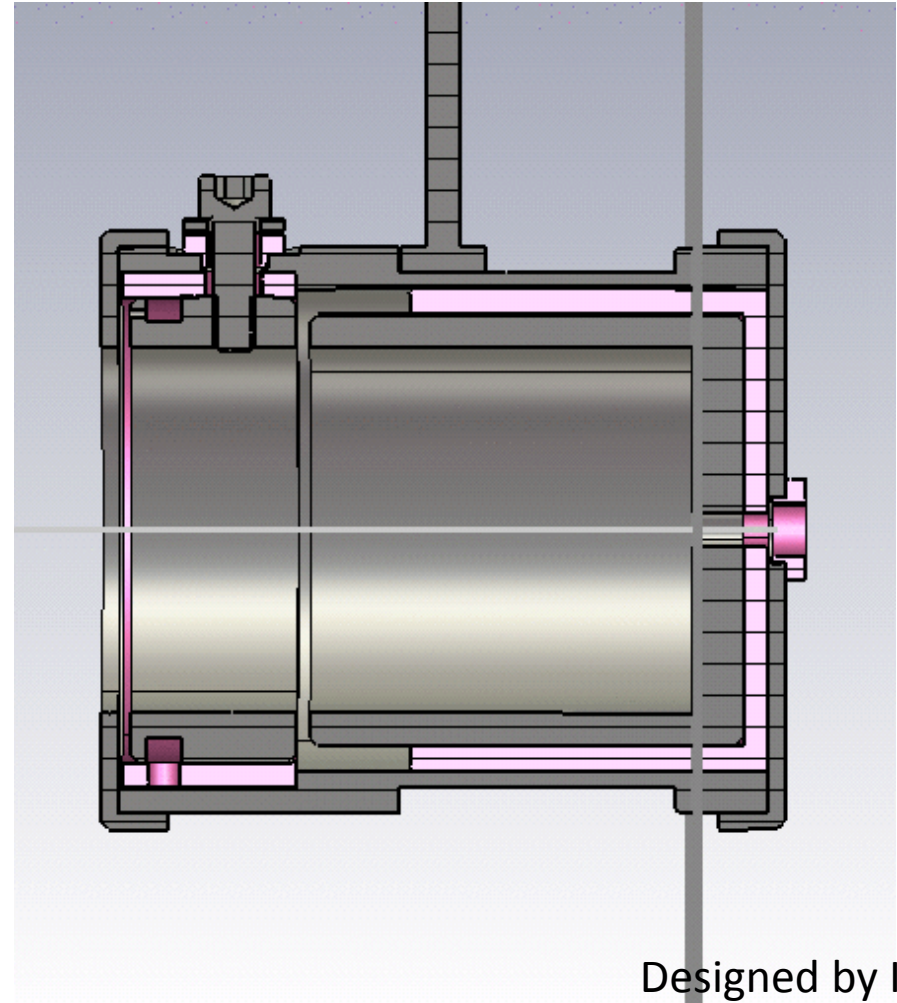
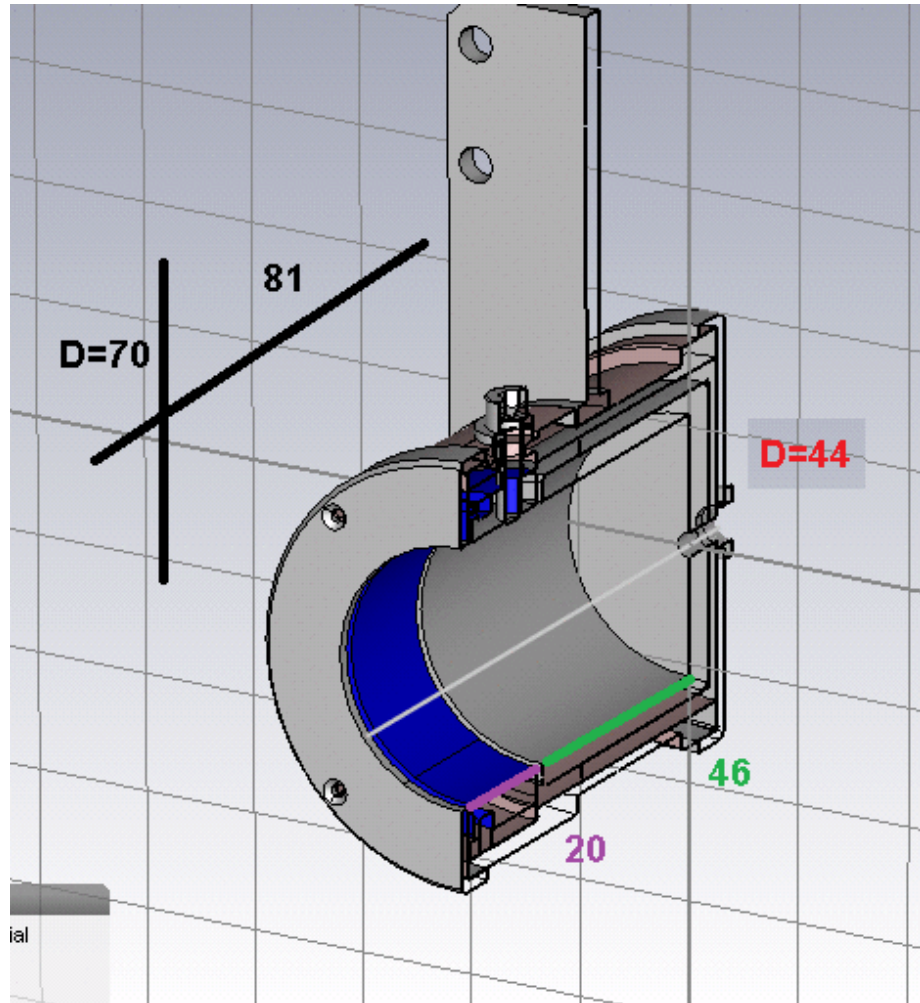


LIU-IONS ECR L3-BCFAB-EC-0001
(EDMS 1560207)LINAC3 Faraday
Cups Upgrade

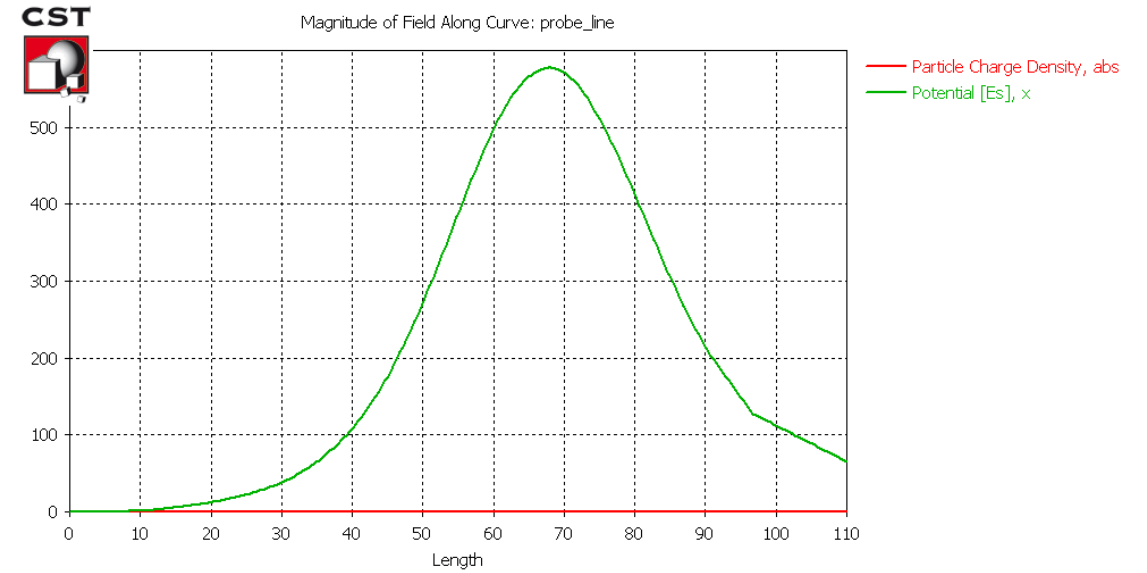
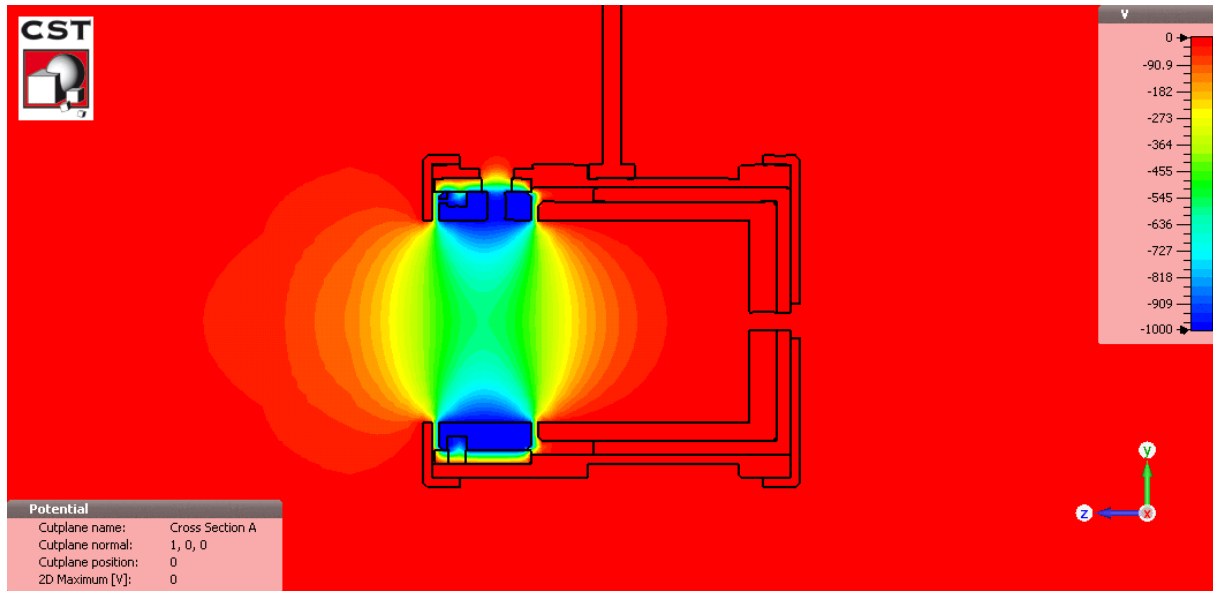
Sergey Sadovich on behalf of BI-BE group

MFC01 dimensions

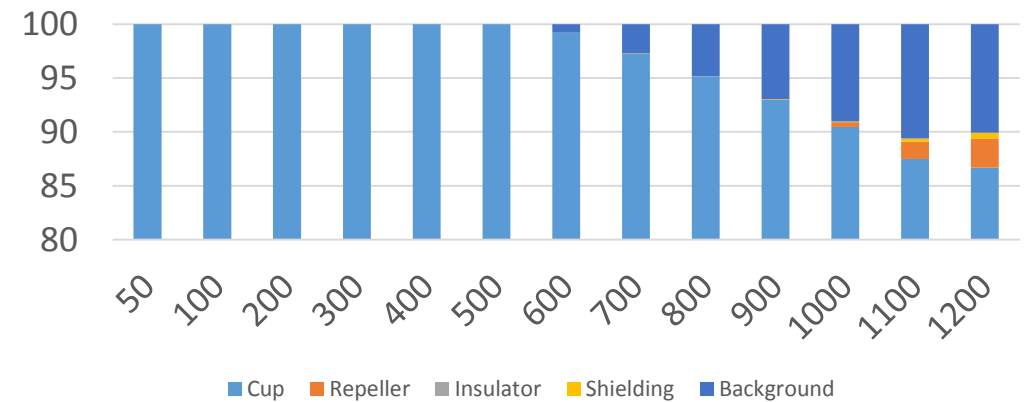


Designed by Ivan Francescut
BE-BI-ML

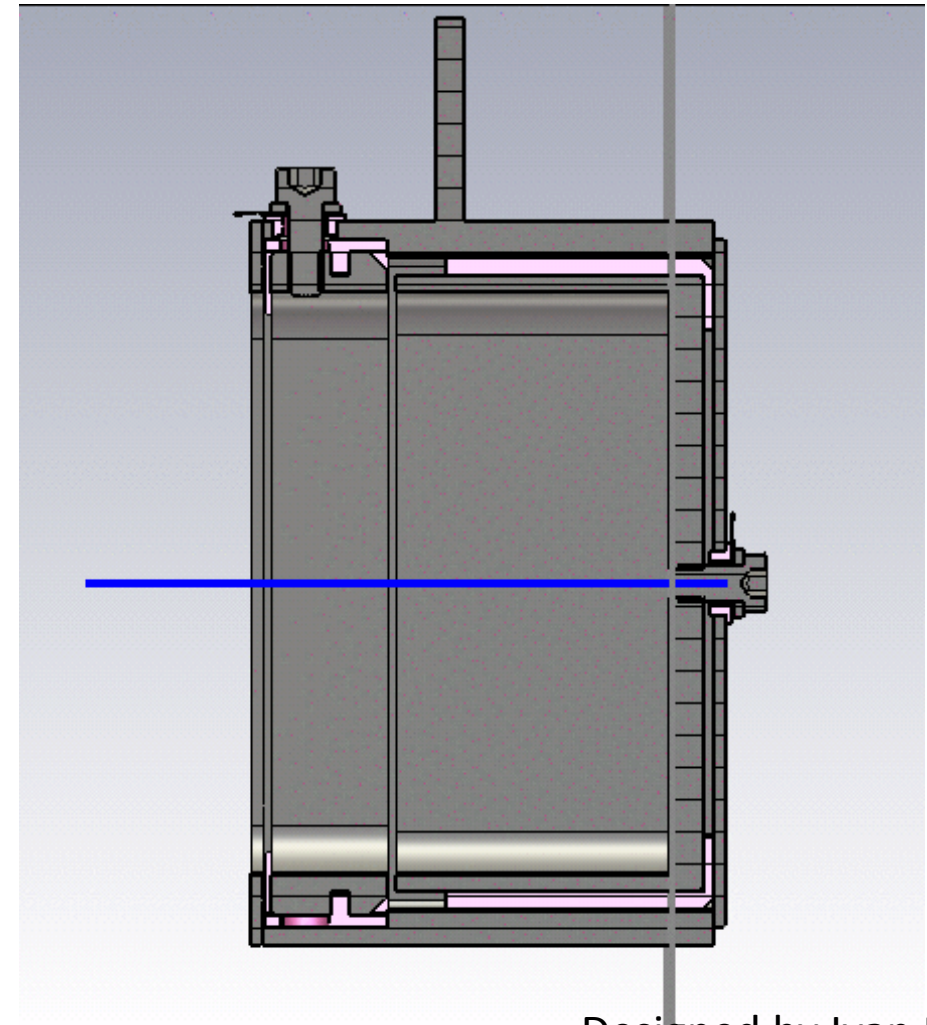
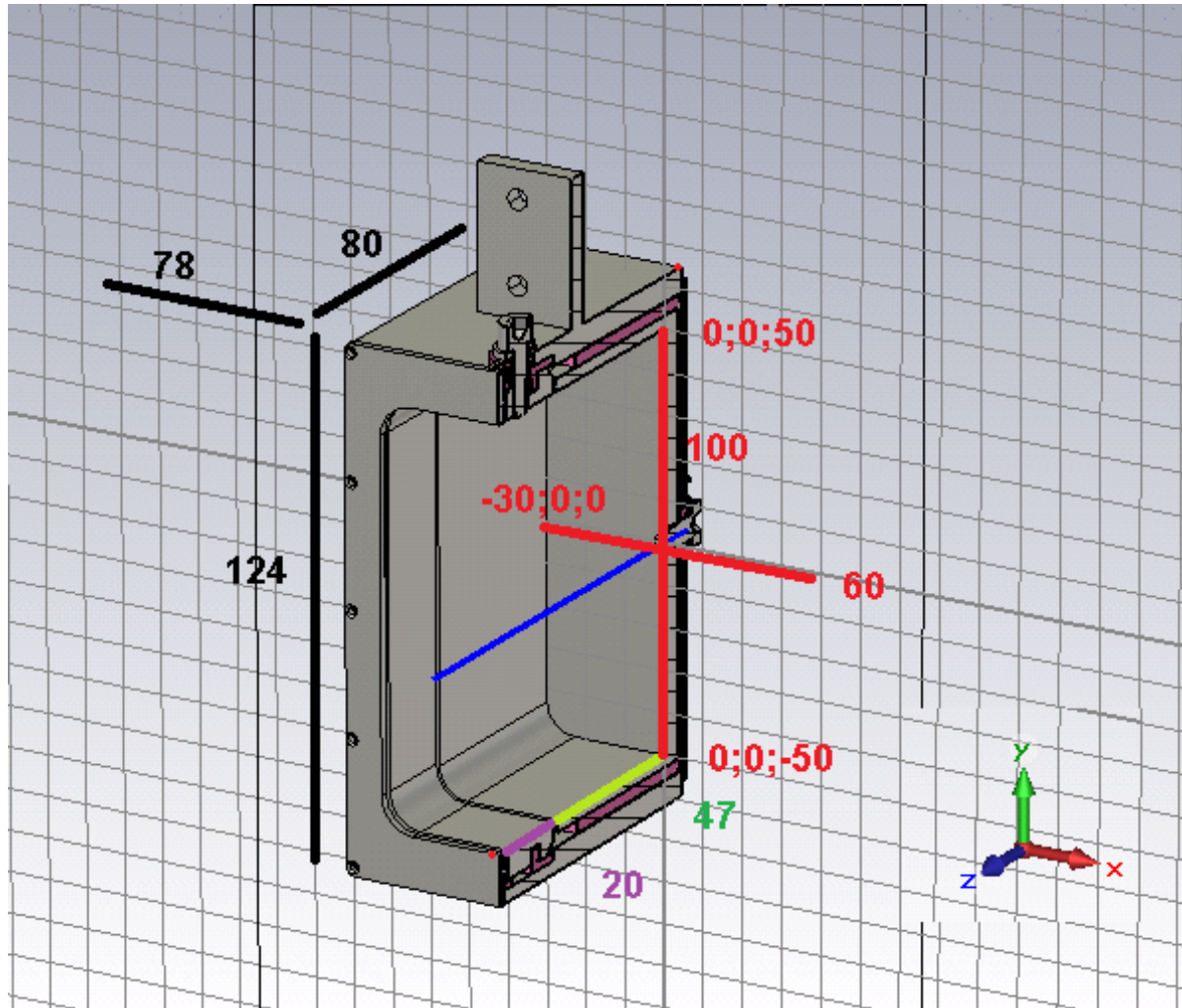
MFC01 potential



% of electrons in different components for MFC01 vs SE energy, HV=-1000V

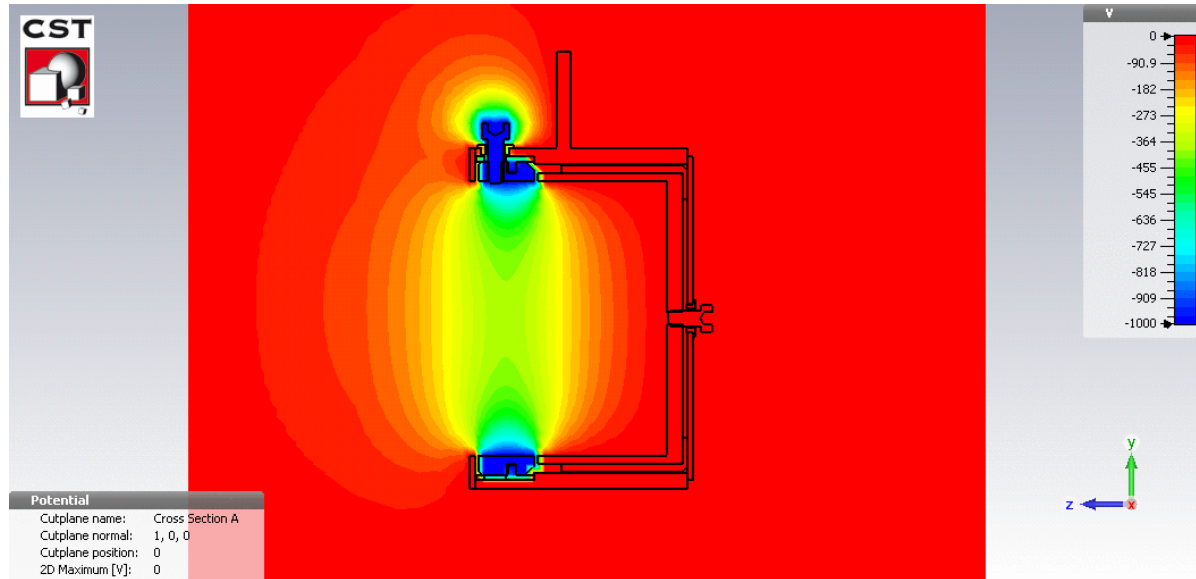


MFC02 dimensions

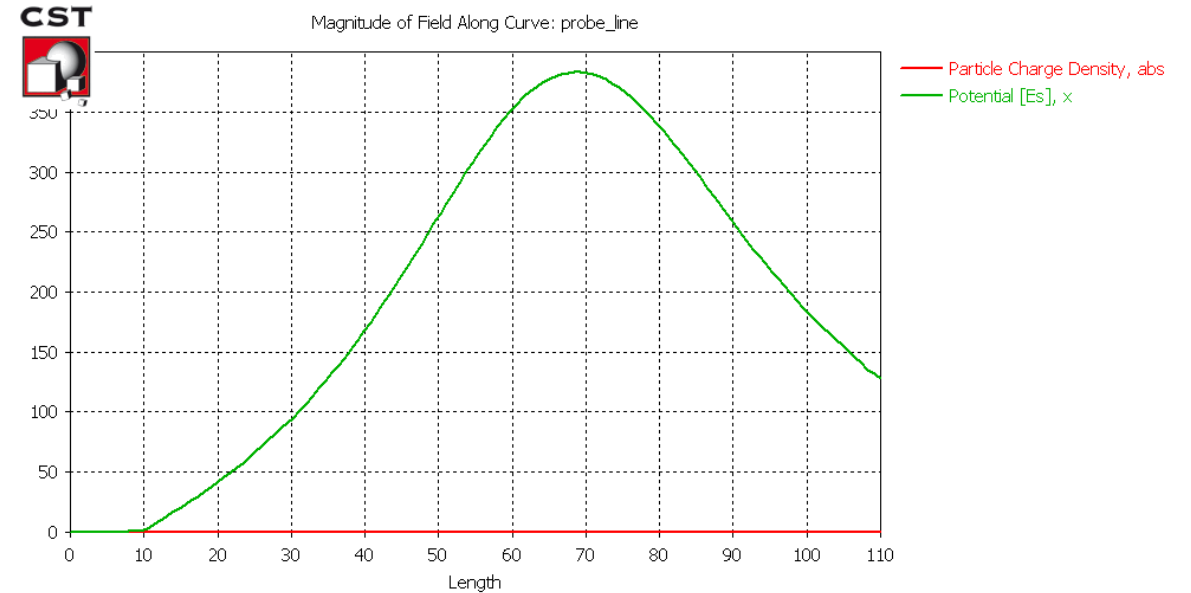
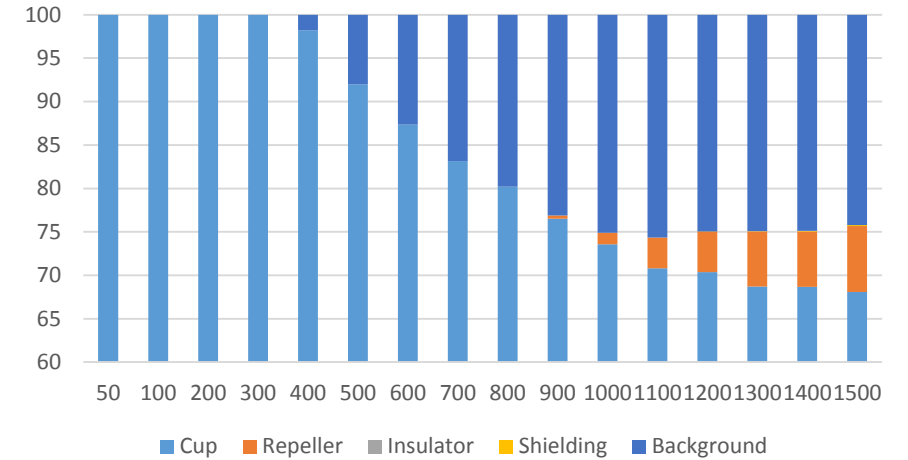


Designed by Ivan Francescut
BE-BI-ML

MFC02 potential



% of electrons in different components for MFC02, vs SE energy, HV = -1000V



Conclusion

- Better performance of FCs is expected:
 - Grounded shielding is added
 - Length of repeller is increased (30% of total length)
 - Electrons with energy less than 500keV for MFC01 and 300keV for MFC02 will be captured and stay in FCs.
 - Connection wire is hidden (to avoid irradiation)
- Faraday Cups should arrive at CERN next week (7-11 December) and installed after cleaning and vacuum test