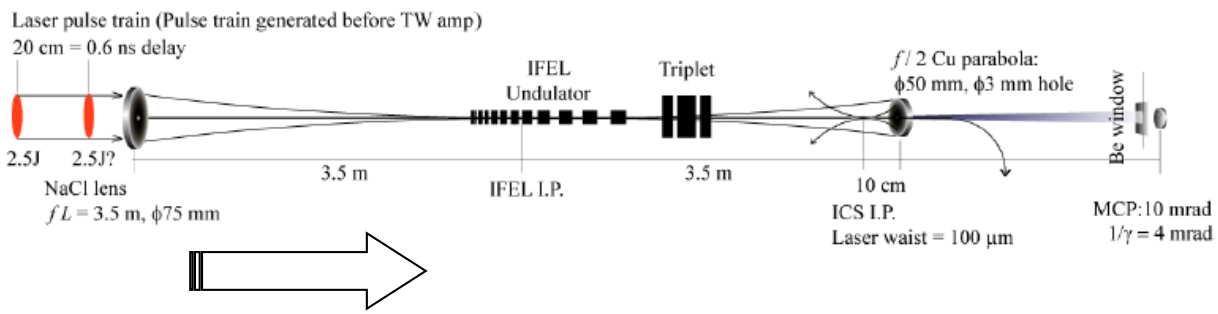
Attachments for AD-021-2015-AUG-18 (Inverse Compton Scattering)

1) Experiment layout (Beamline #2)

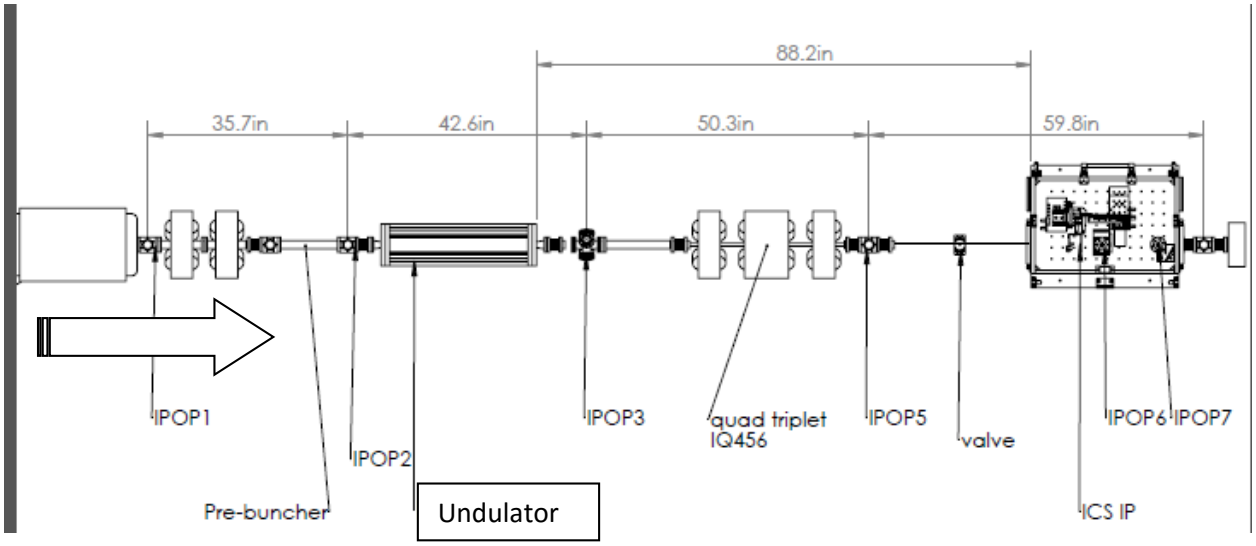
a) Conceptual layout



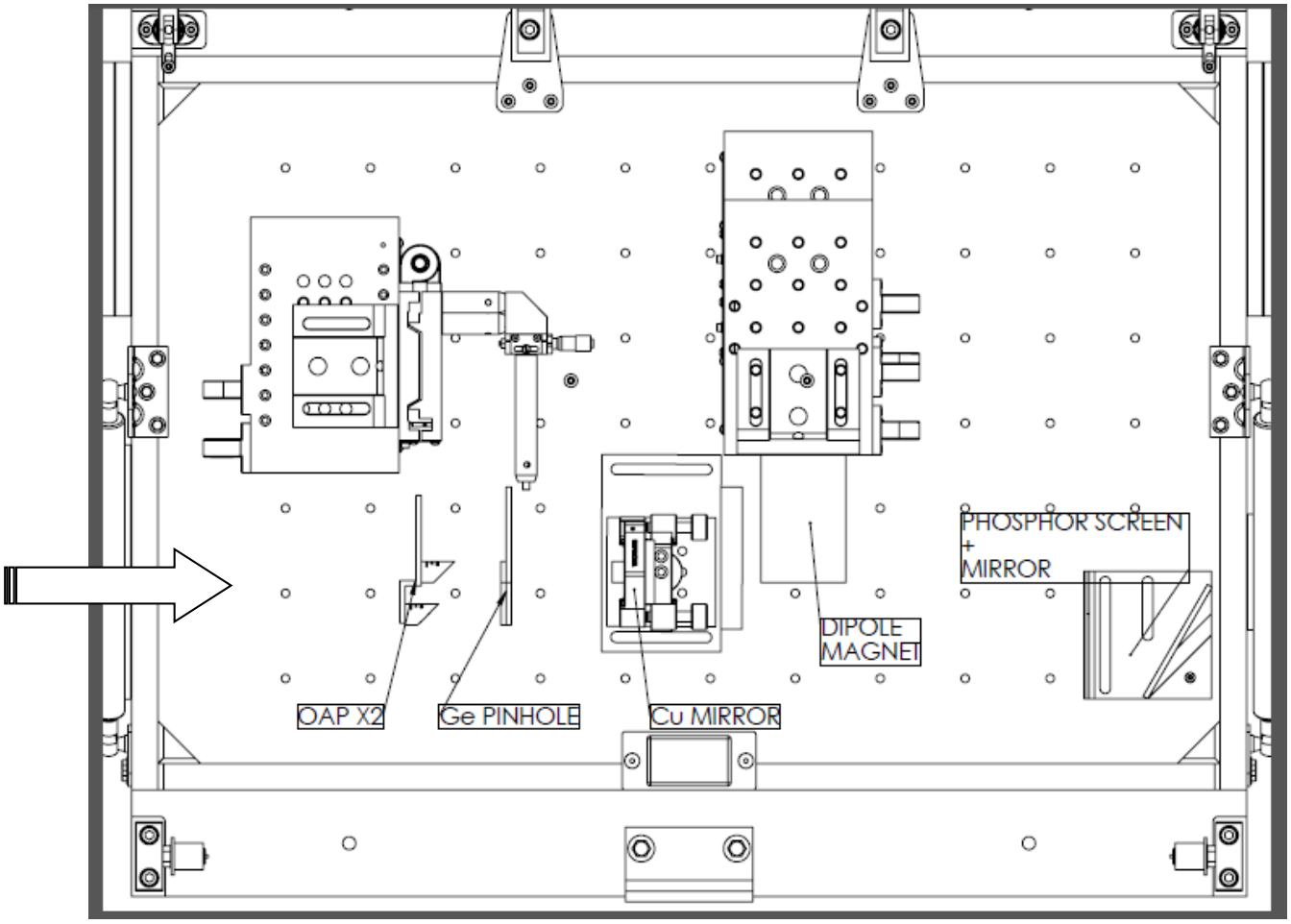
Co-propagating CO2 laser and electron beams

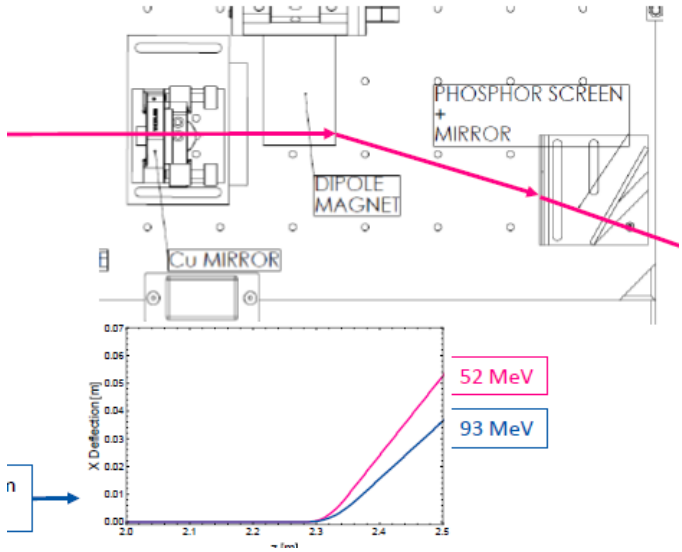
Interaction chamber & dipole

b) Beamline component layout



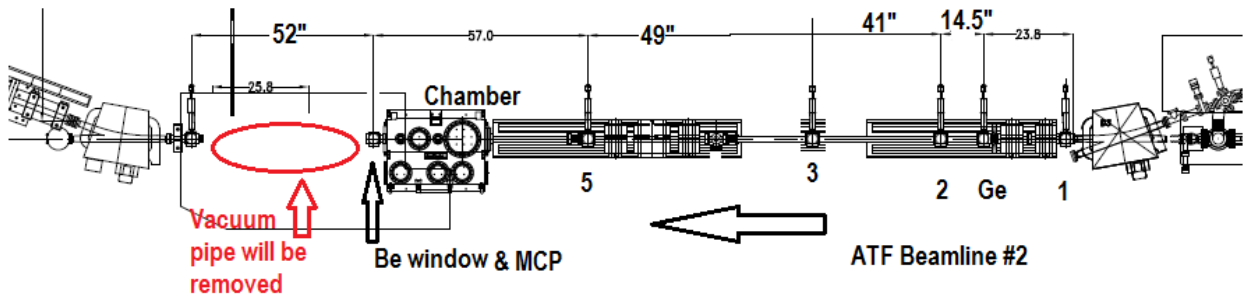
c) Close-up of interaction chamber





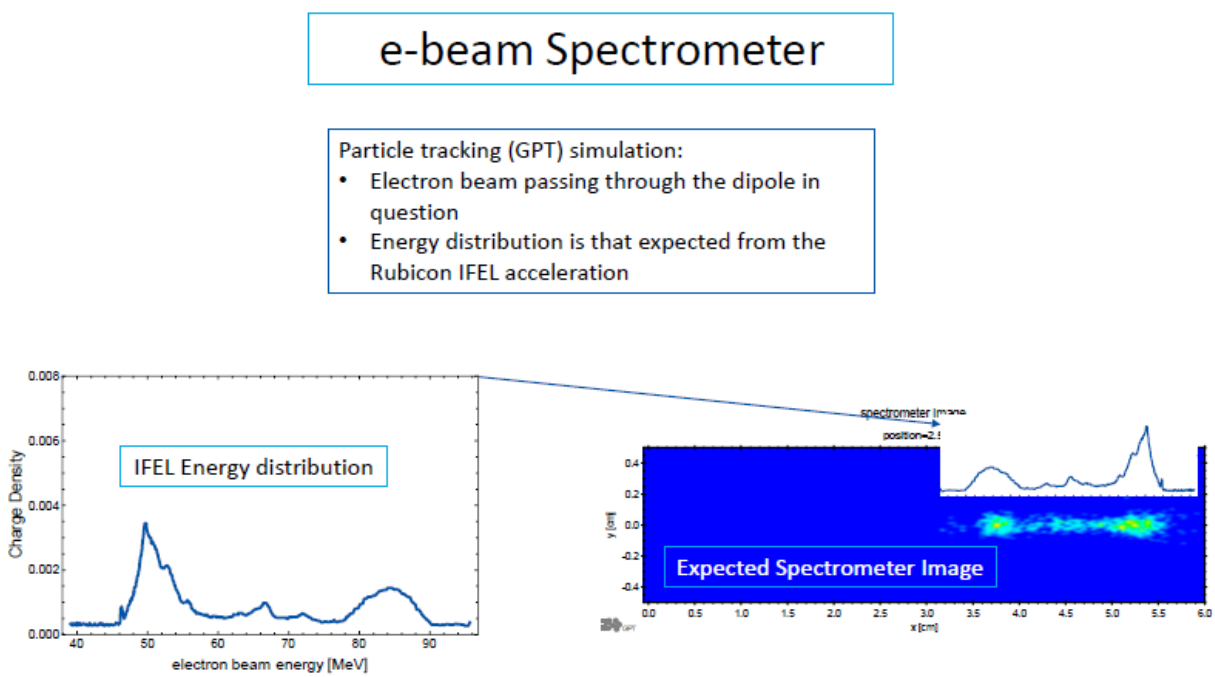
d) Predicted trajectory

2) Changes to beam transport (dipole/dump inside chamber, Be window & MCP detector replace downstream vacuum pipe)



(NOTE: beamline orientation is opposite from previous drawings)

3) Expected energy spectrum



4) Electron beam parameters at chamber

Parameter	Value	Units
Peak Dipole Field	0.87	Tesla
Dipole Gap	7	mm
Deflection Angle	8.9 – 16.1	Degree
E-beam Energy	52 - 93	MeV
Bunch Charge	200 – 500	pC
Rep-rate	1.5	Hz