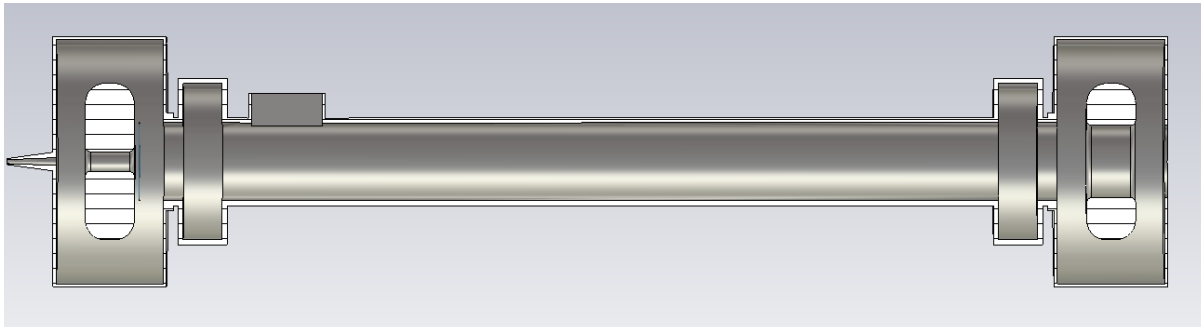
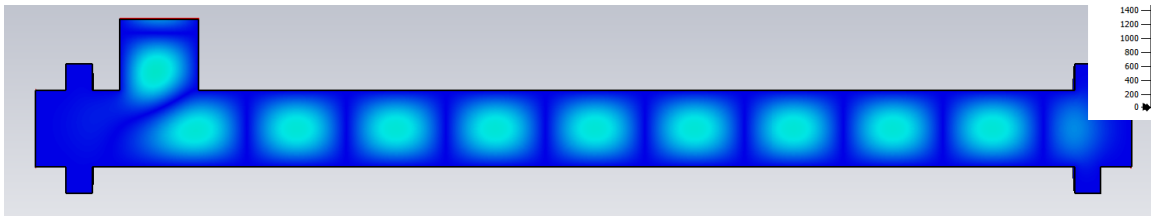


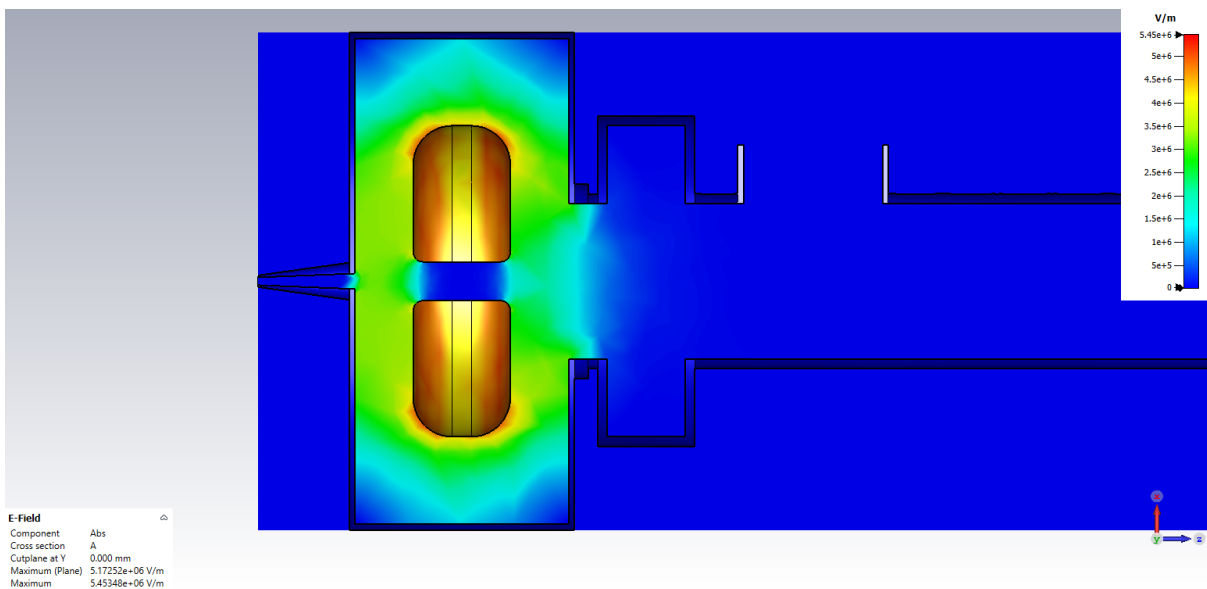
Gabor – grounded anode



Configuration to allow e-density measurement using RF - essentially a 2-pass interferometer at $\sim 3\text{GHz}$ which would give a phase shift of ~ 10 degrees at maximum electron density. Possible to design for higher number of 'passes' to give more phase shift for lower electron densities. Note, no spatial or axial resolution – averaged result over volume.



Anode is grounded to facilitate connection to RF system, cathodes are at volts -



Approx factor of 3 below Kilpatrick criteria for breakdown, assuming -100kV on cathodes. (At -65kV design value safety factor would be 5)

This arrangement should use an electron source to 'fill' the gabor lens volume, else asymmetry will be required to preferentially fill desired volume.