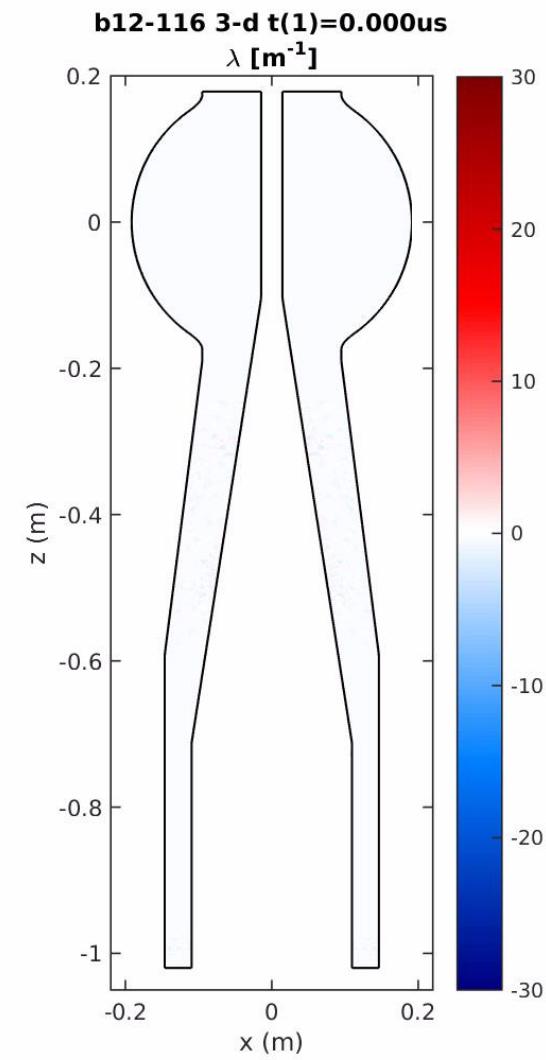
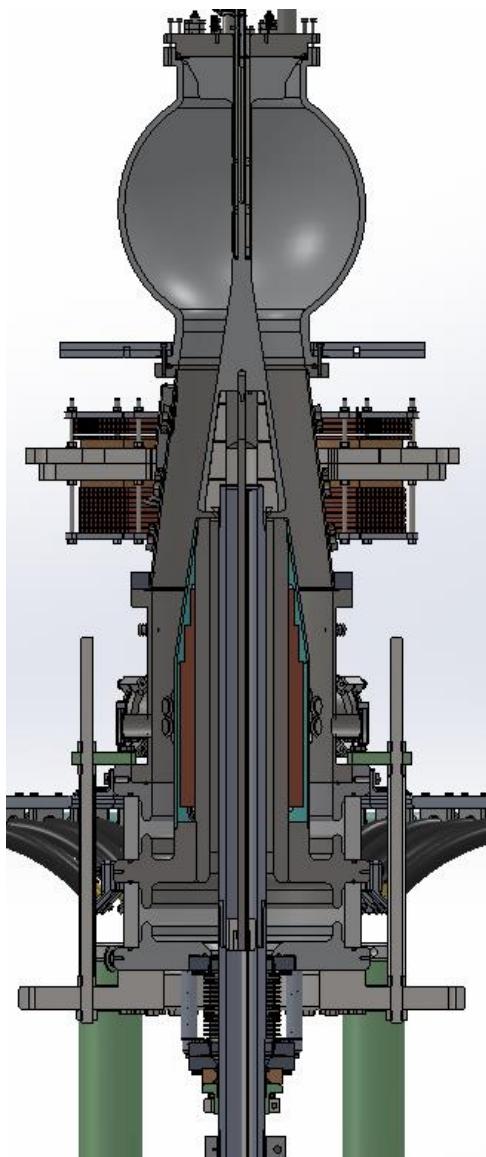
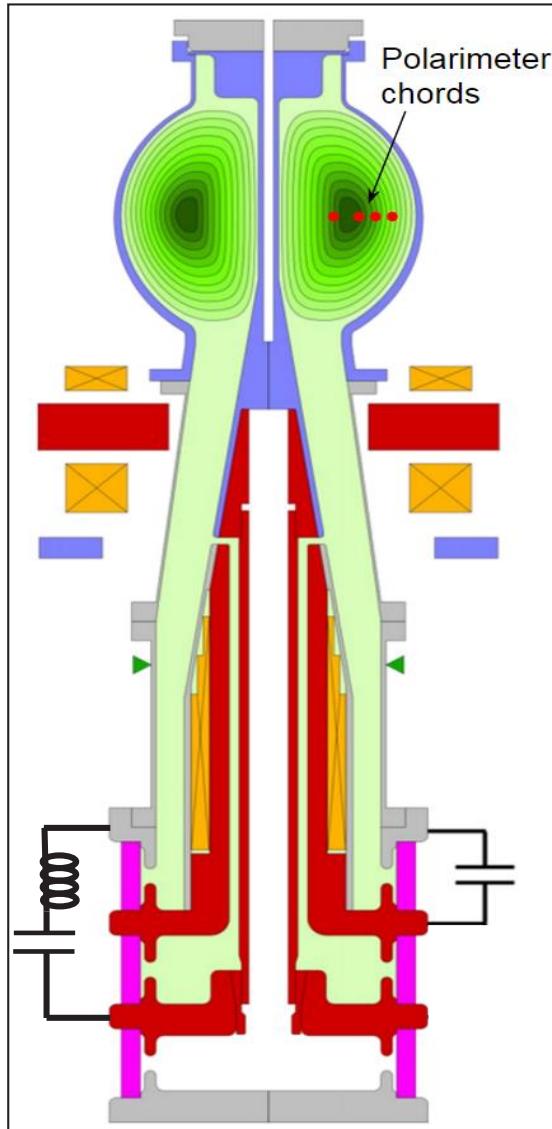


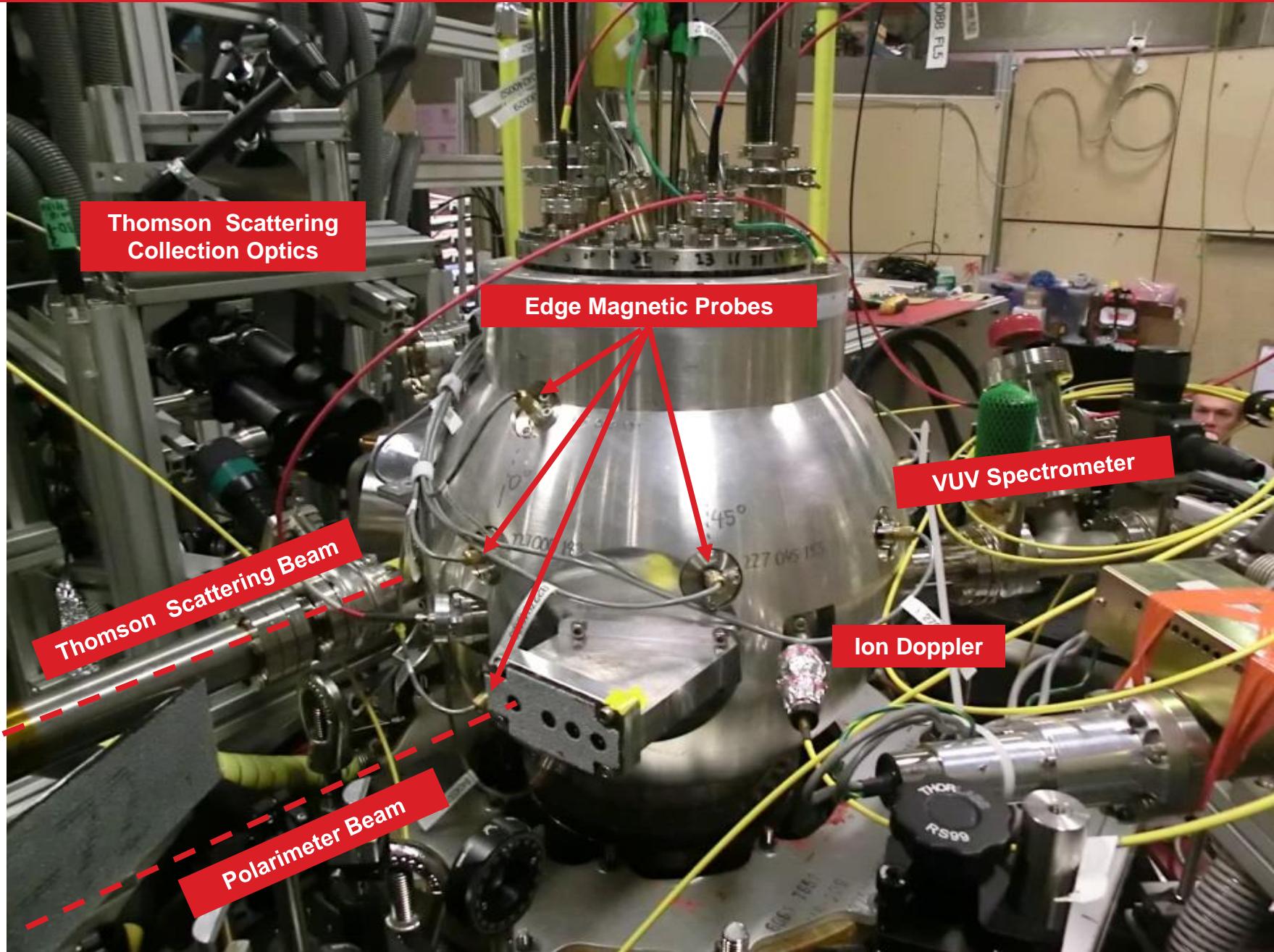
EXPERIMENTAL RESULTS FROM THE SPECTOR DEVICE AT GENERAL FUSION

Stephen Howard – SOFE 2017

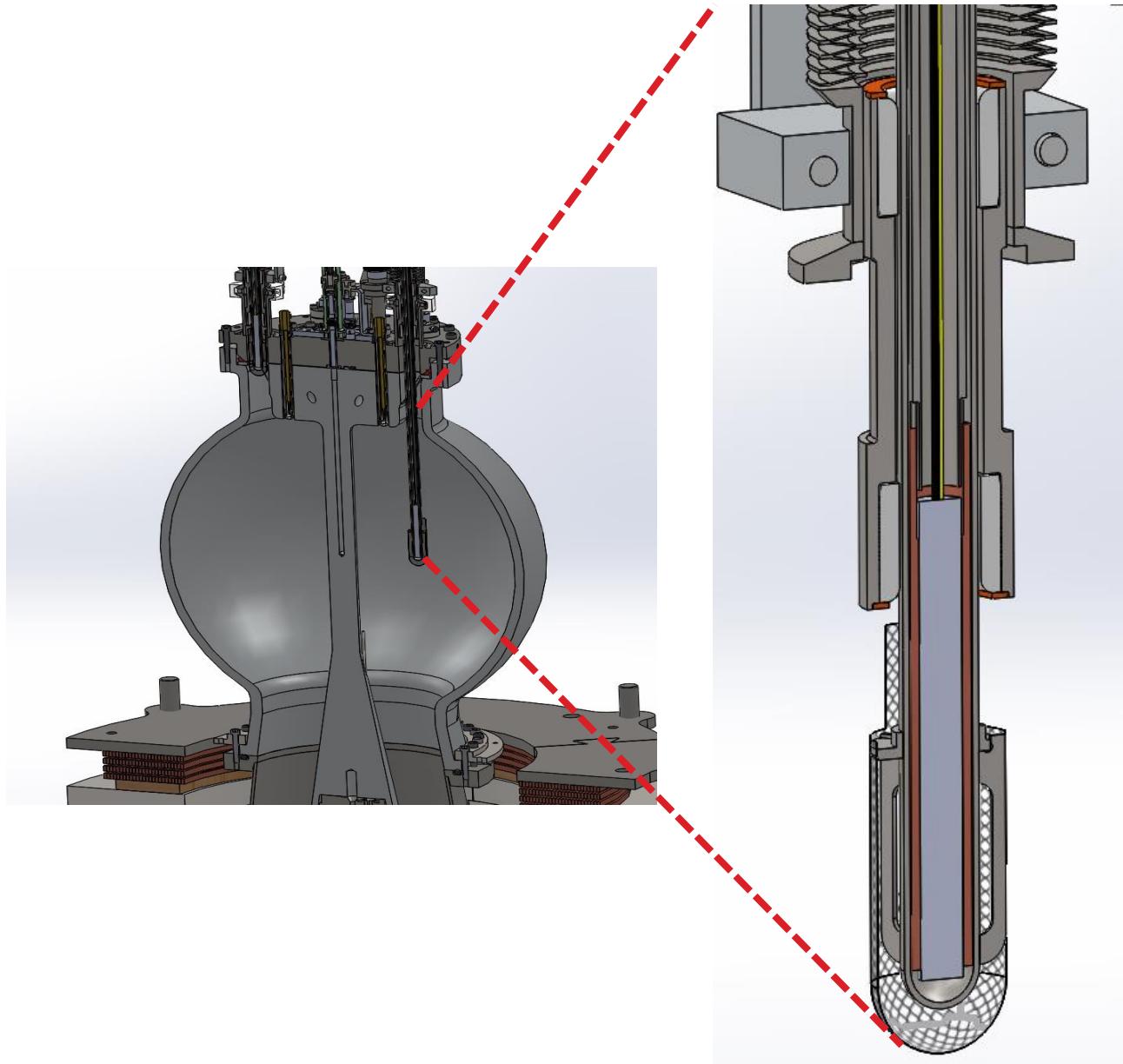
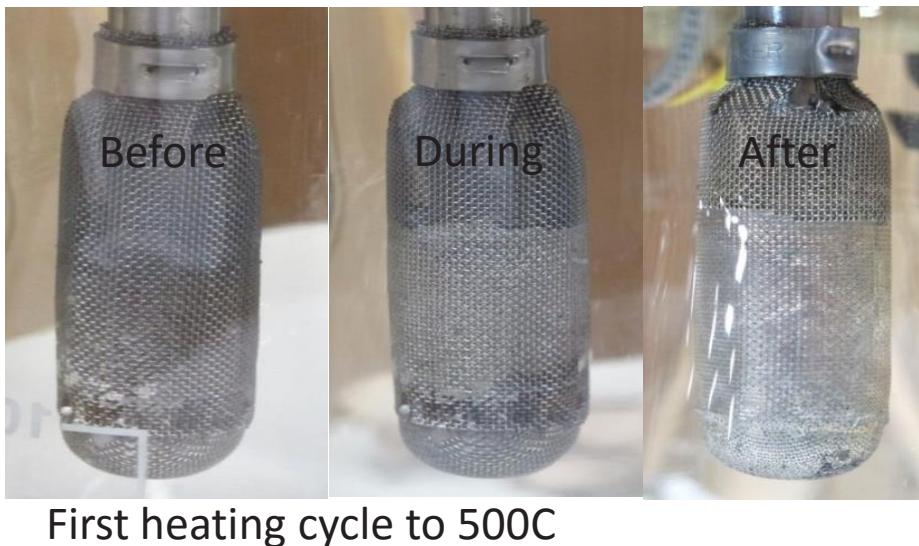
generalfusion

SPECTOR Coaxial Marshall Gun

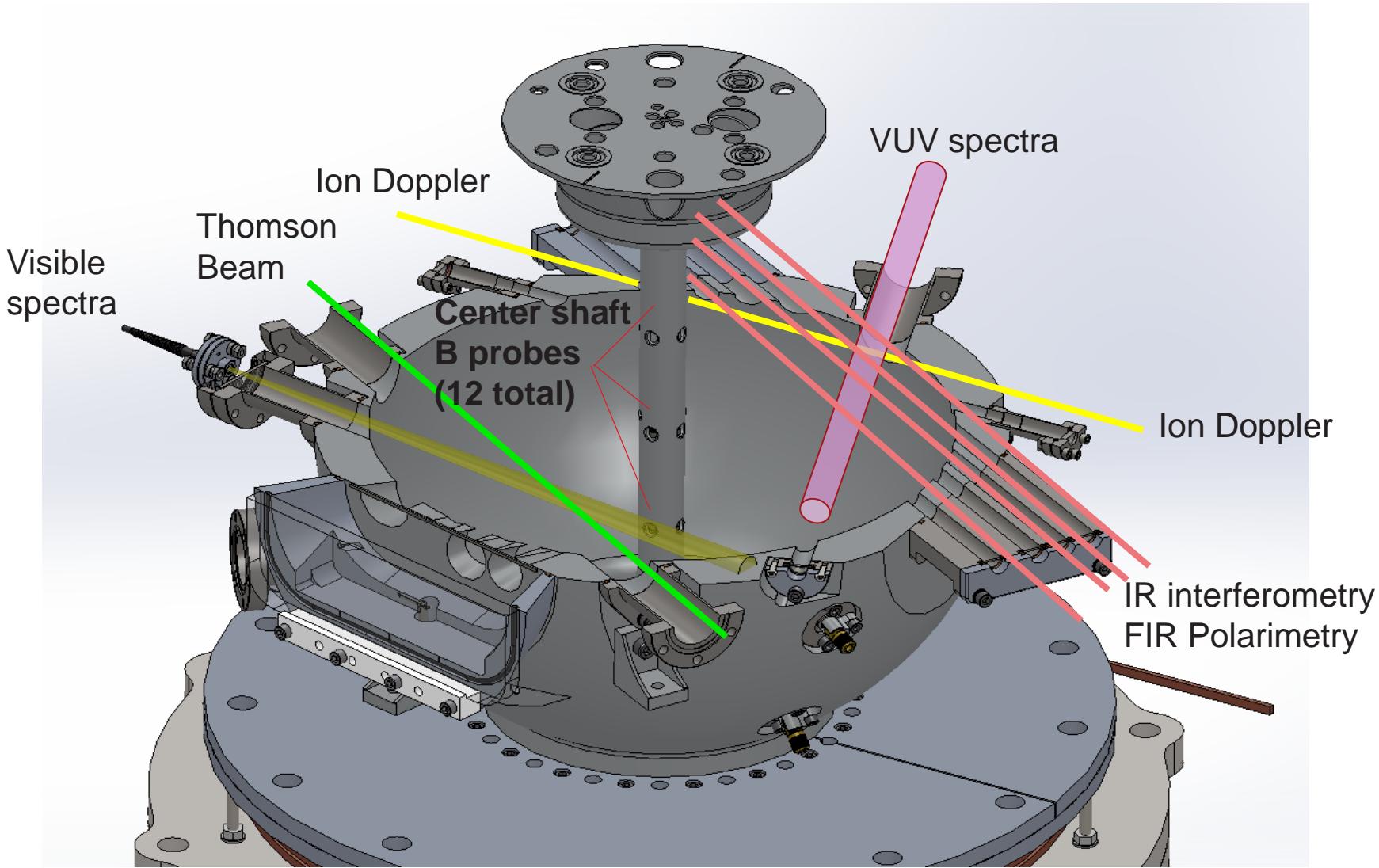




Lithium Evaporator



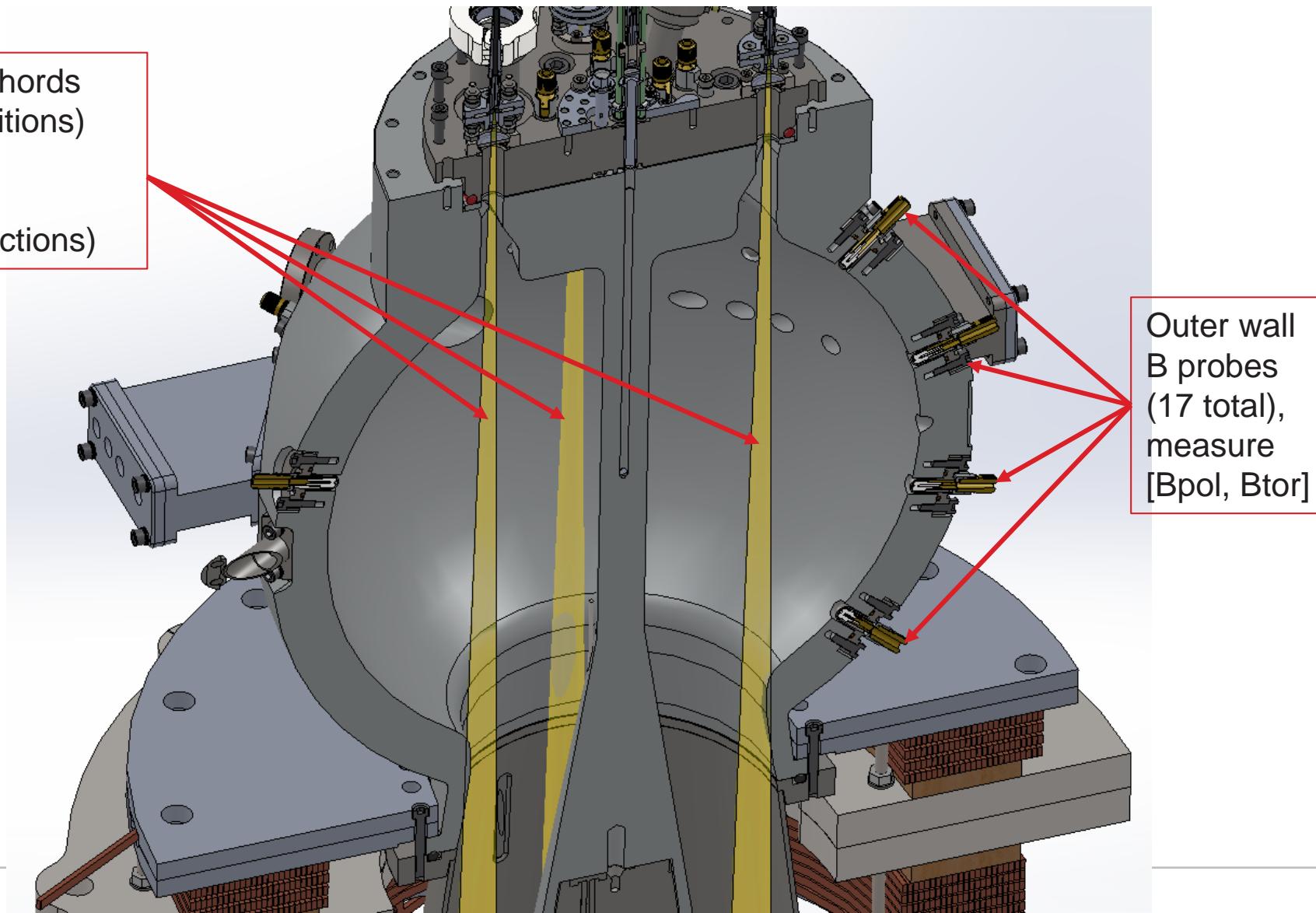
Diagnostics (equatorial view)



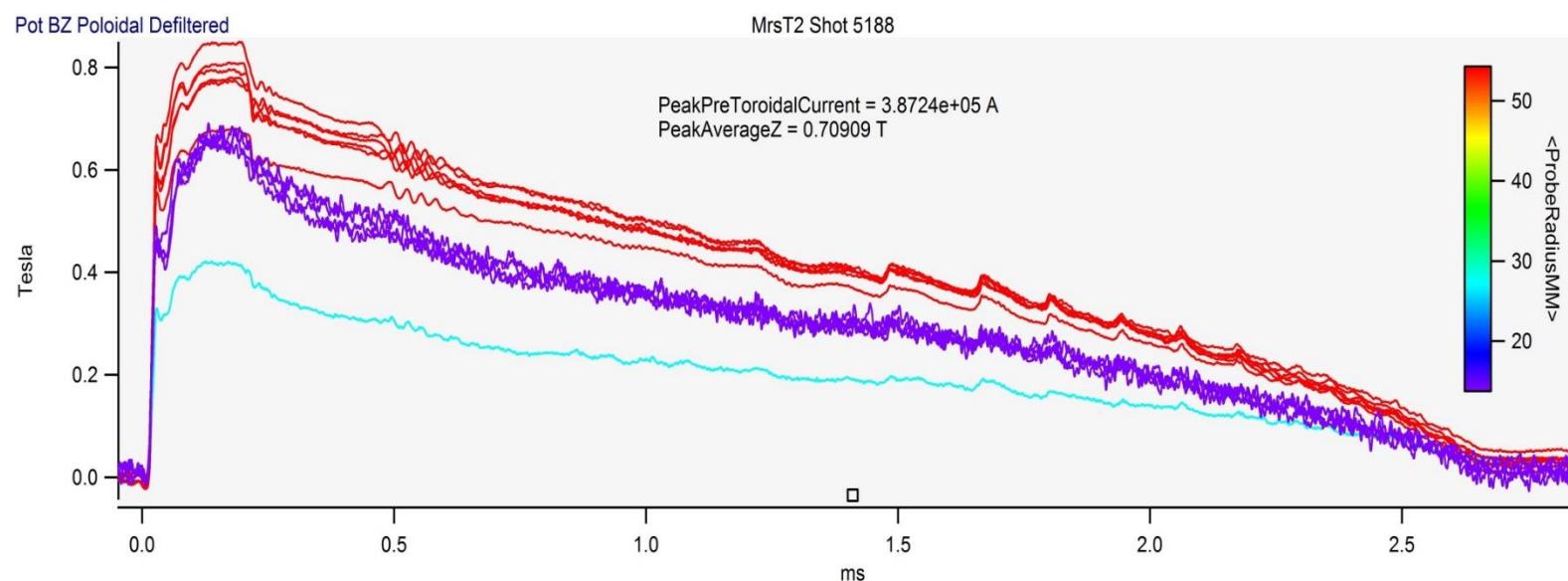
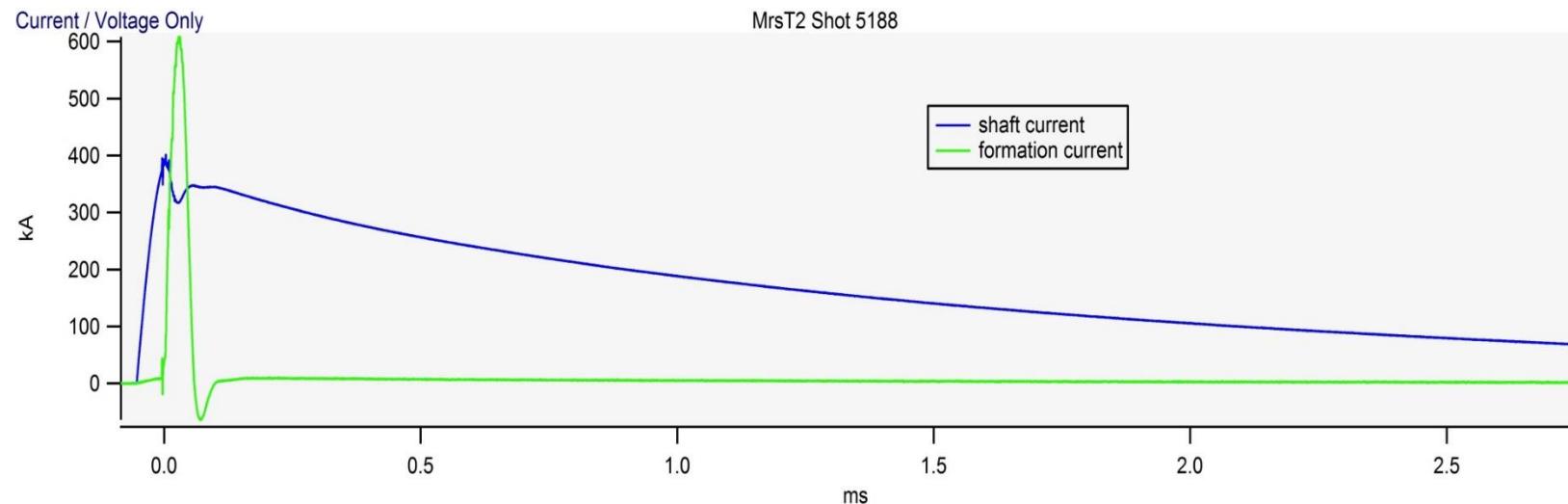
Diagnostics (poloidal view)

Visible Light Chords
(2 toroidal positions)

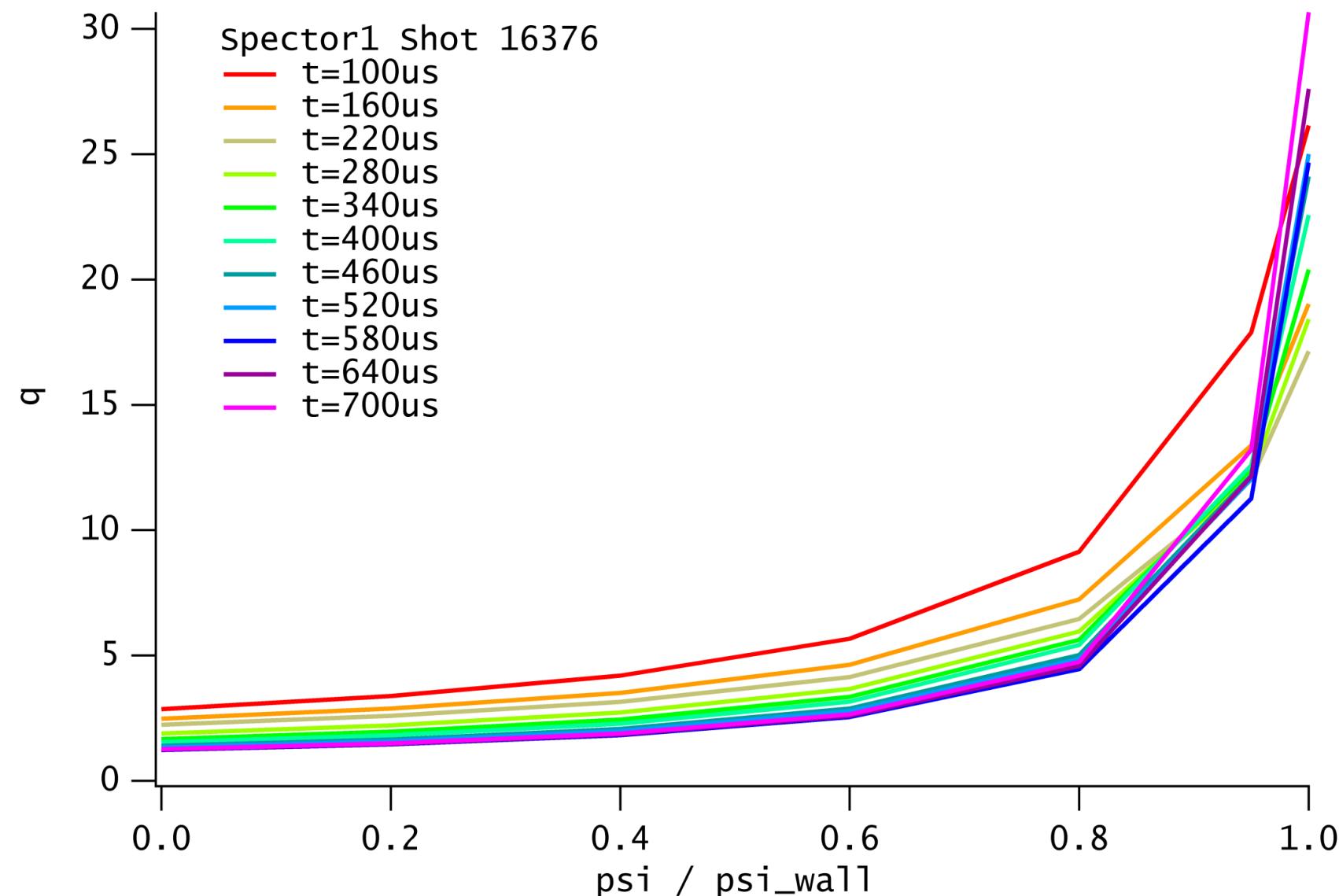
X-Rays
(2 toroidal directions)



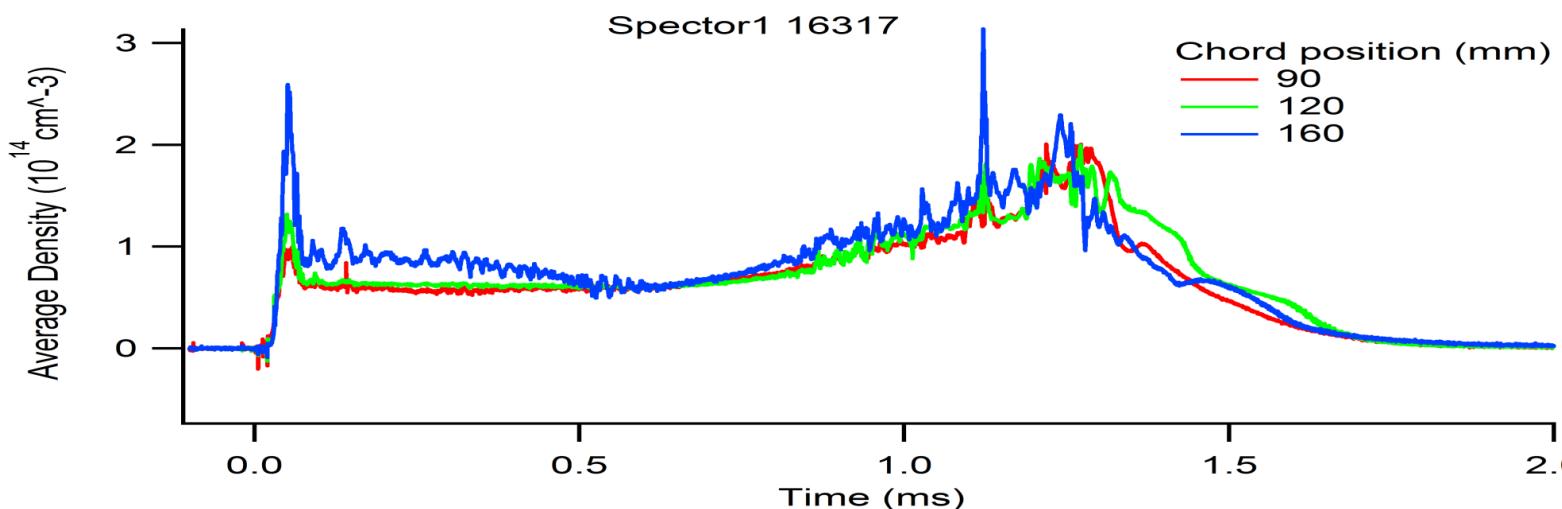
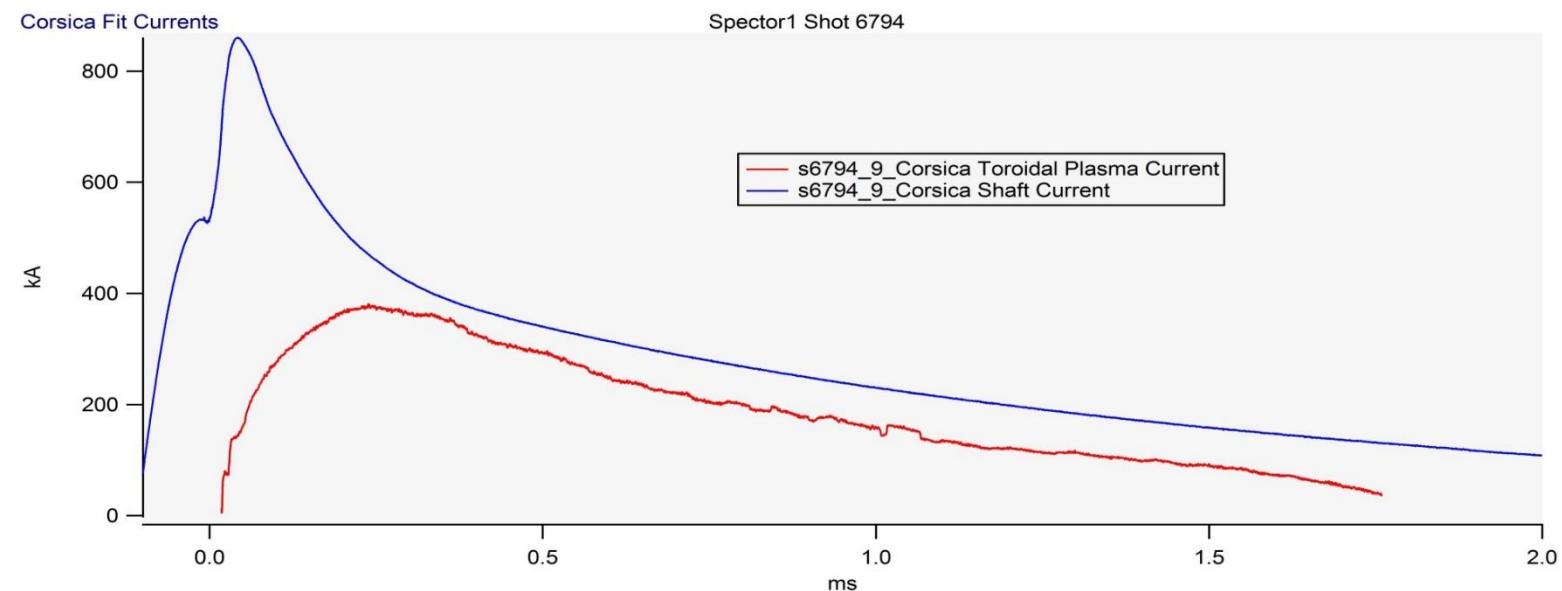
Current and poloidal field



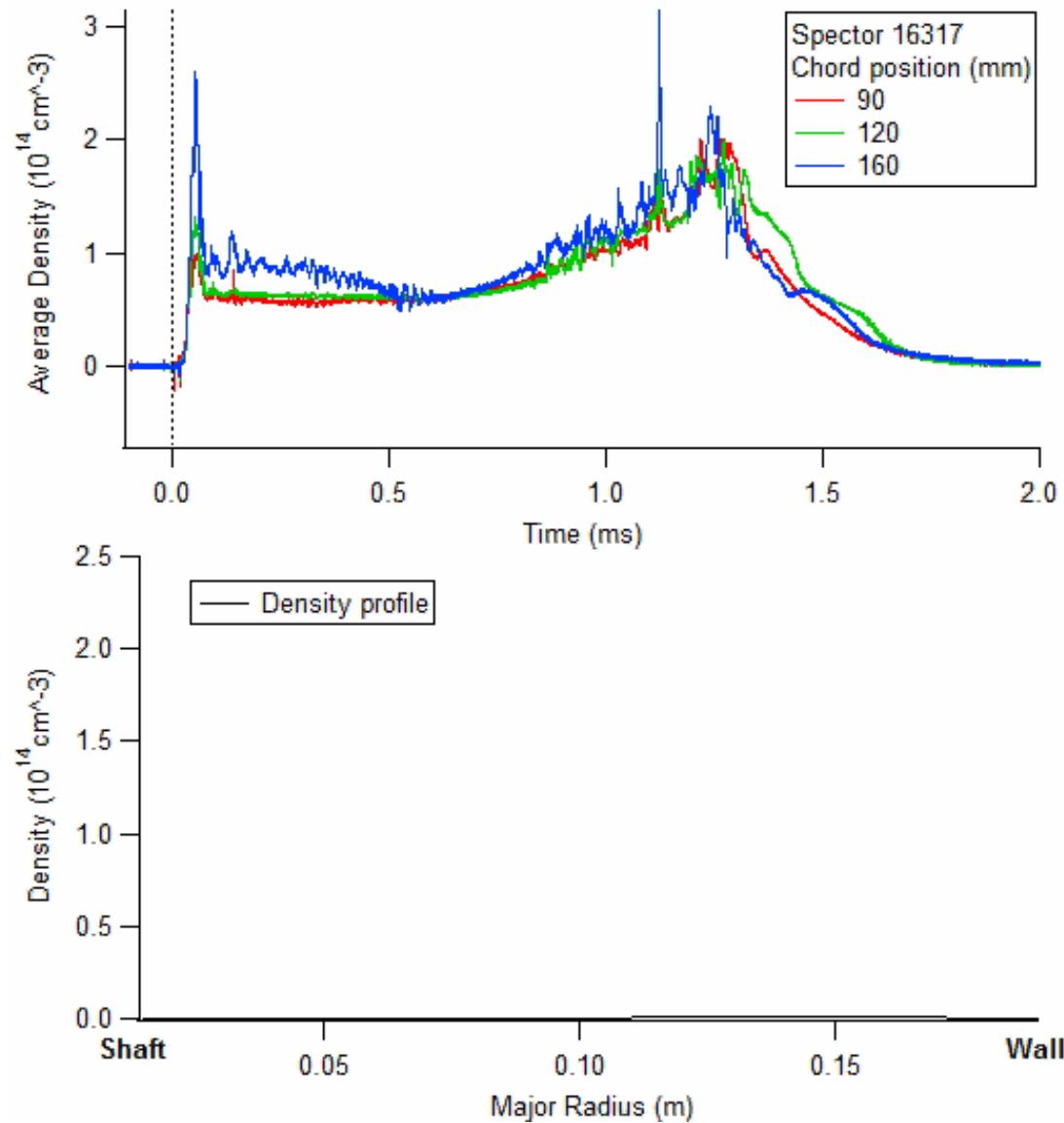
Corsica reconstruction q profile



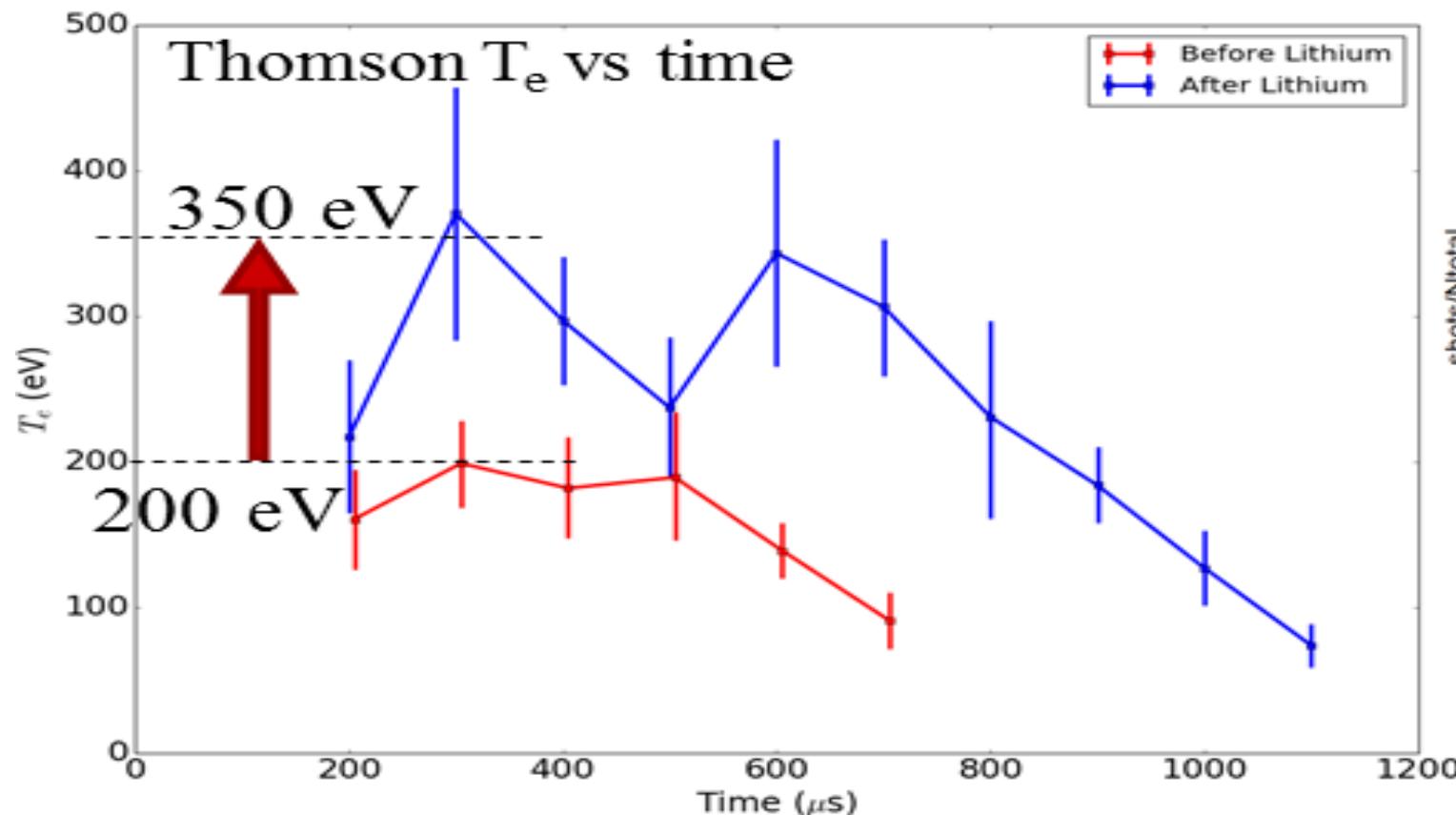
Plasma current and 118 um interferometer density



Abel inversion density profile vs time

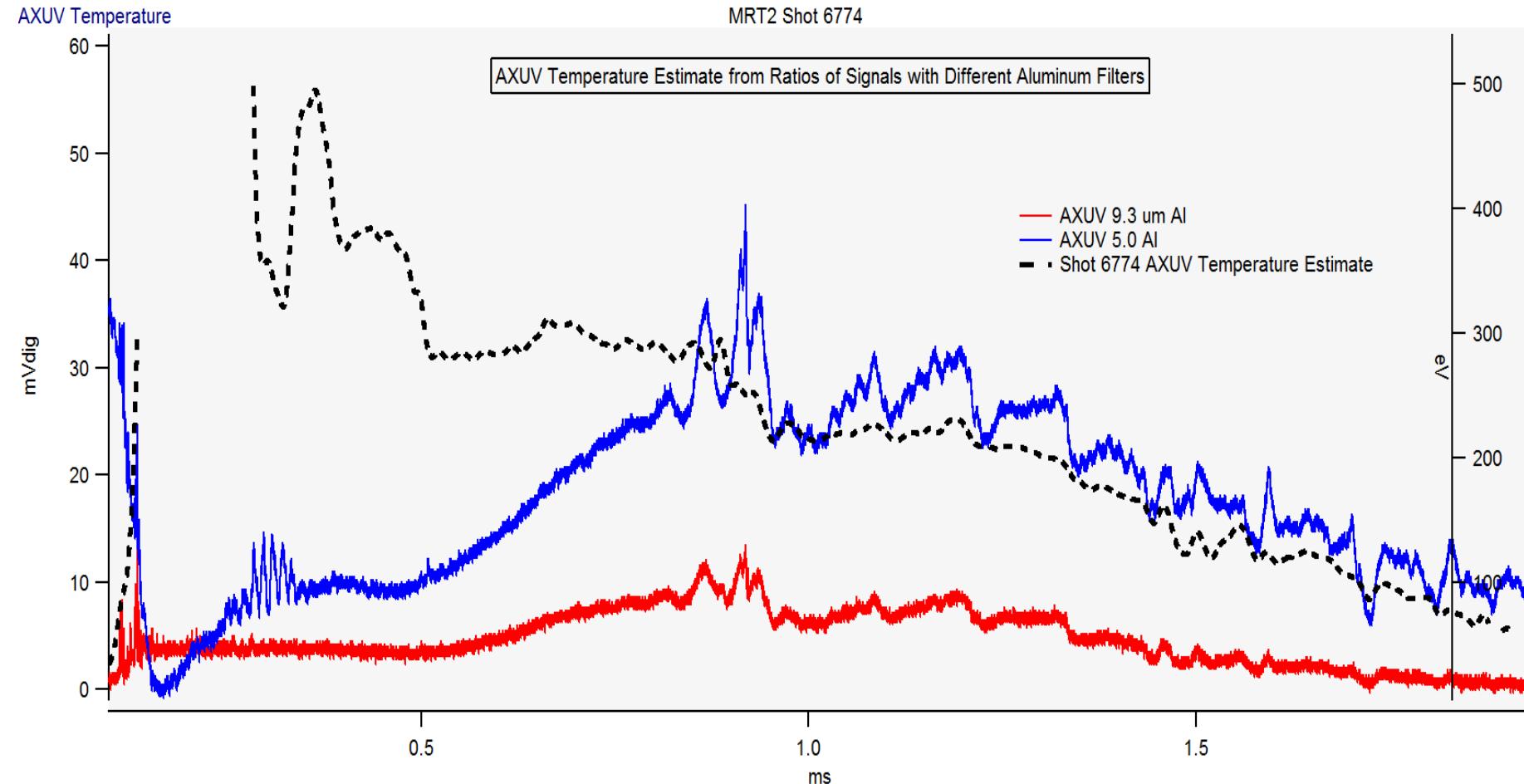


Thomson scattering temperature

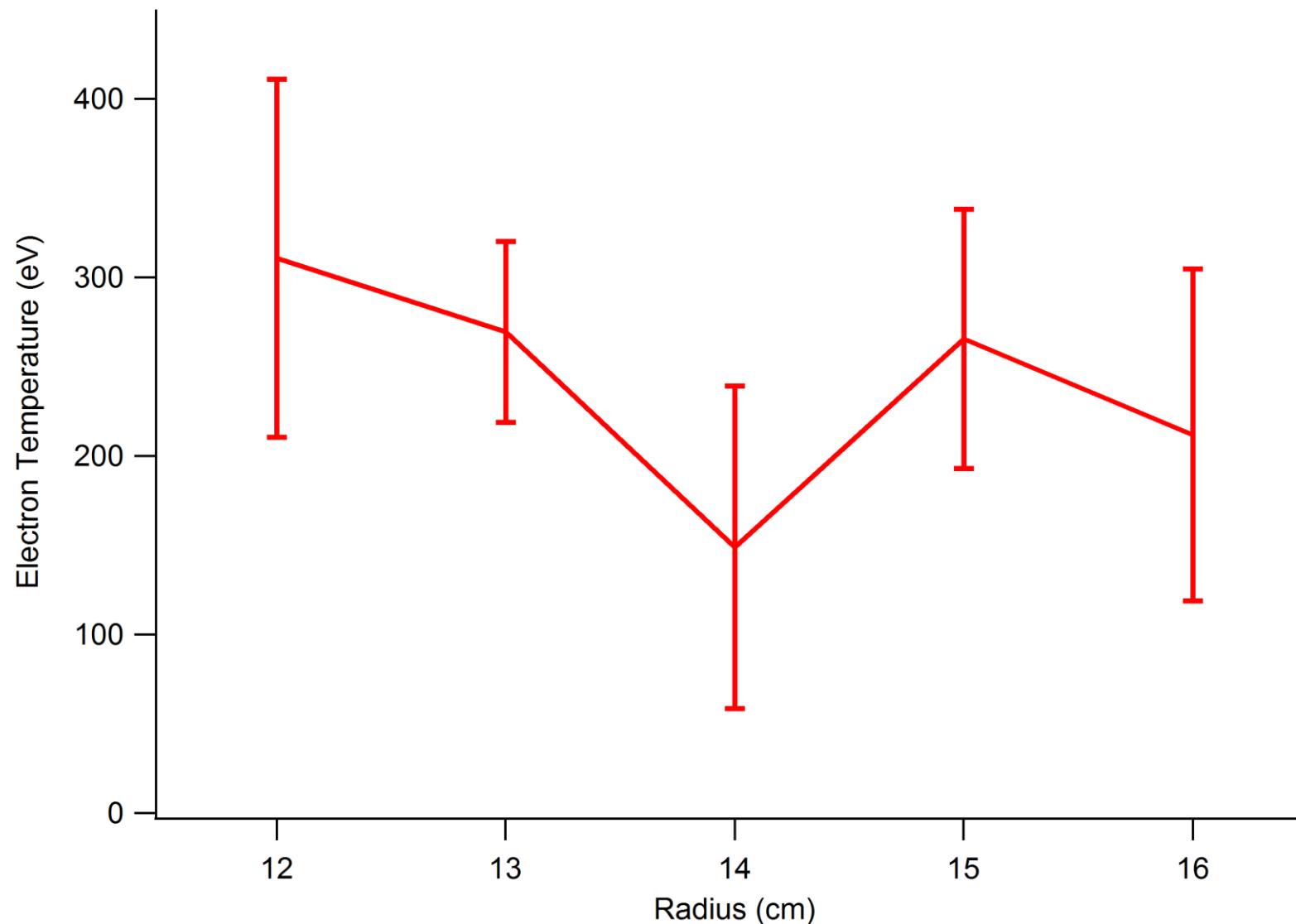


Before Li (shots 5466 – 5497)
After Li (shots 6147 – 6223)

X-rays temperature estimate



Thompson Temperature spacial profile



Conclusion

- We form nice spherical tokamak with no solenoid
- Density $5\text{-}10\text{E}19 \text{ m}^{-3}$
- Temperature $\sim 300\text{-}400 \text{ eV}$
- Magnetic life 2.5 ms
- Fine parameters to compress to higher performance in General Fusion compression experiments

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