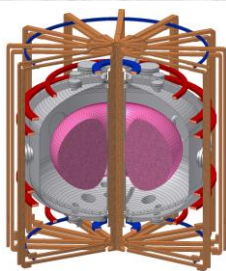


Introduction

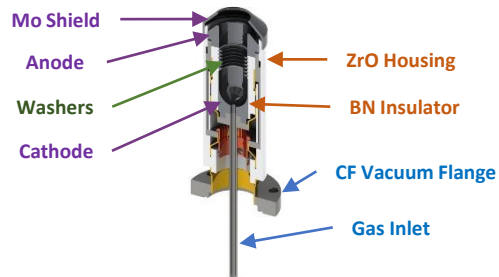
The SUNIST Device

- $R_0 \sim 0.3\text{m}$
- $a \sim 0.23\text{m}$
- $A \sim 1.3$
- $\kappa \sim 1.6$
- $B_{T0} \sim 0.3\text{T}$
- $I_p \sim 50\text{kA}$
- $t \sim 15\text{ms}$
- $n_e \sim 1 \times 10^{19}\text{m}^{-3}$
- $T_e \sim 100\text{eV}$

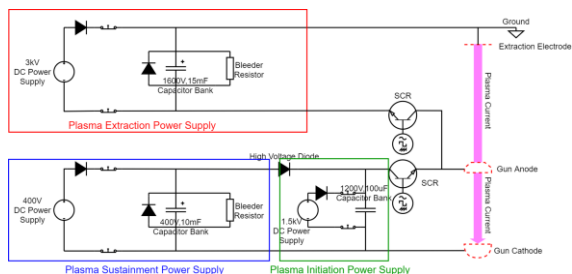


Washer Gun Development

Washer Gun Sectional View

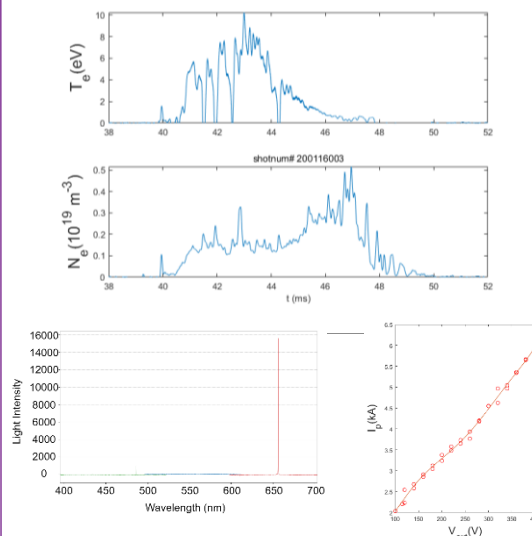


Washer Gun Power Supply

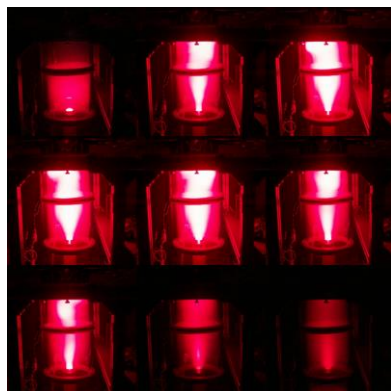


Washer Gun Off Device Test

Te, Ne, spectrum, and current limit

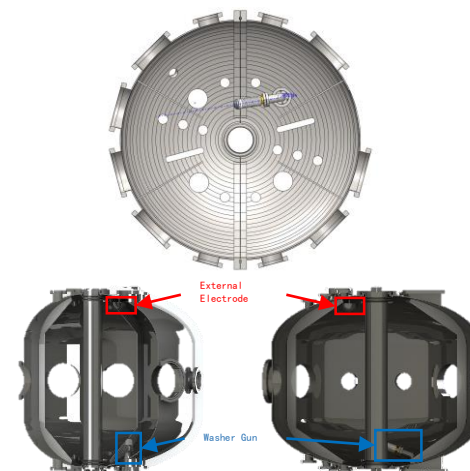


Off Device Discharge Image

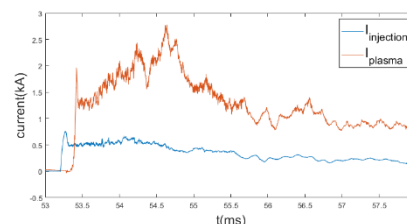
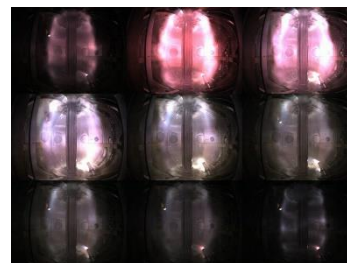


Washer Gun in SUNIST

Experiment Setup



Current Driving



#220408028

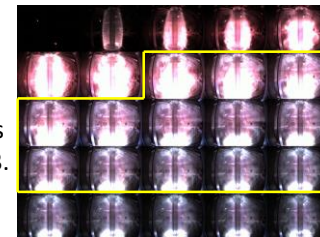
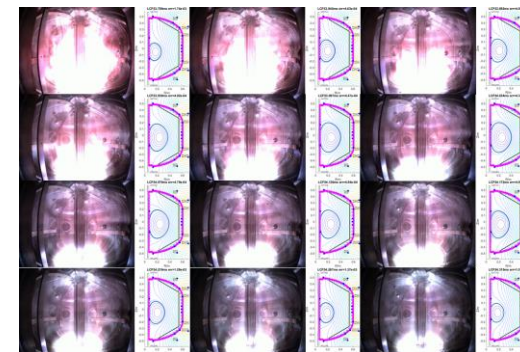
E-fit Evidence for LHI in Low Fields

At low fields

$$B_{T0} \sim 0.05\text{T}$$

Found evidence for closed mag-surface for 0.5ms #220427027@53.47ms

Frame per 0.047ms



Future Prospects in SUNIST-2

The washer gun developed meets the requirements of plasma initialization on the SUNIST-2 device.

2 sets of washer guns will be placed separated at the top and the bottom plane of the vacuum vessel.

Washer gun configuration on the SUNIST-2 device is under design and further experiments stay to be carried out.