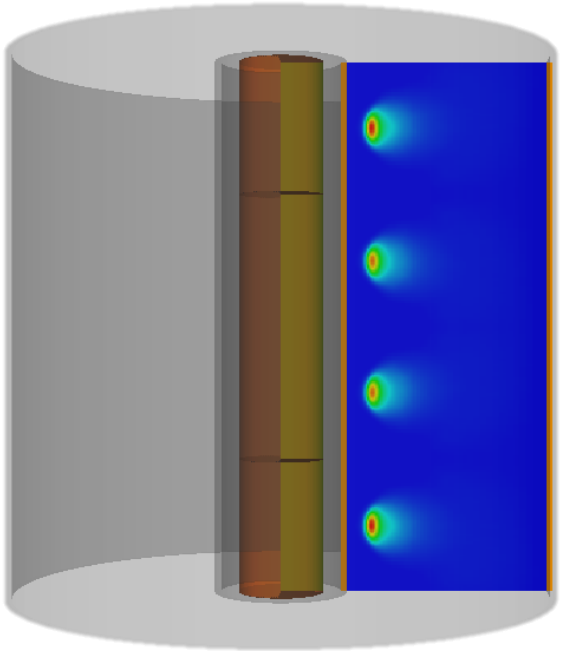
PARTICLE-PLUS

2020/2/3

— CASE EXAMPLE —

Magnetron Sputtering for Cylindrical Target



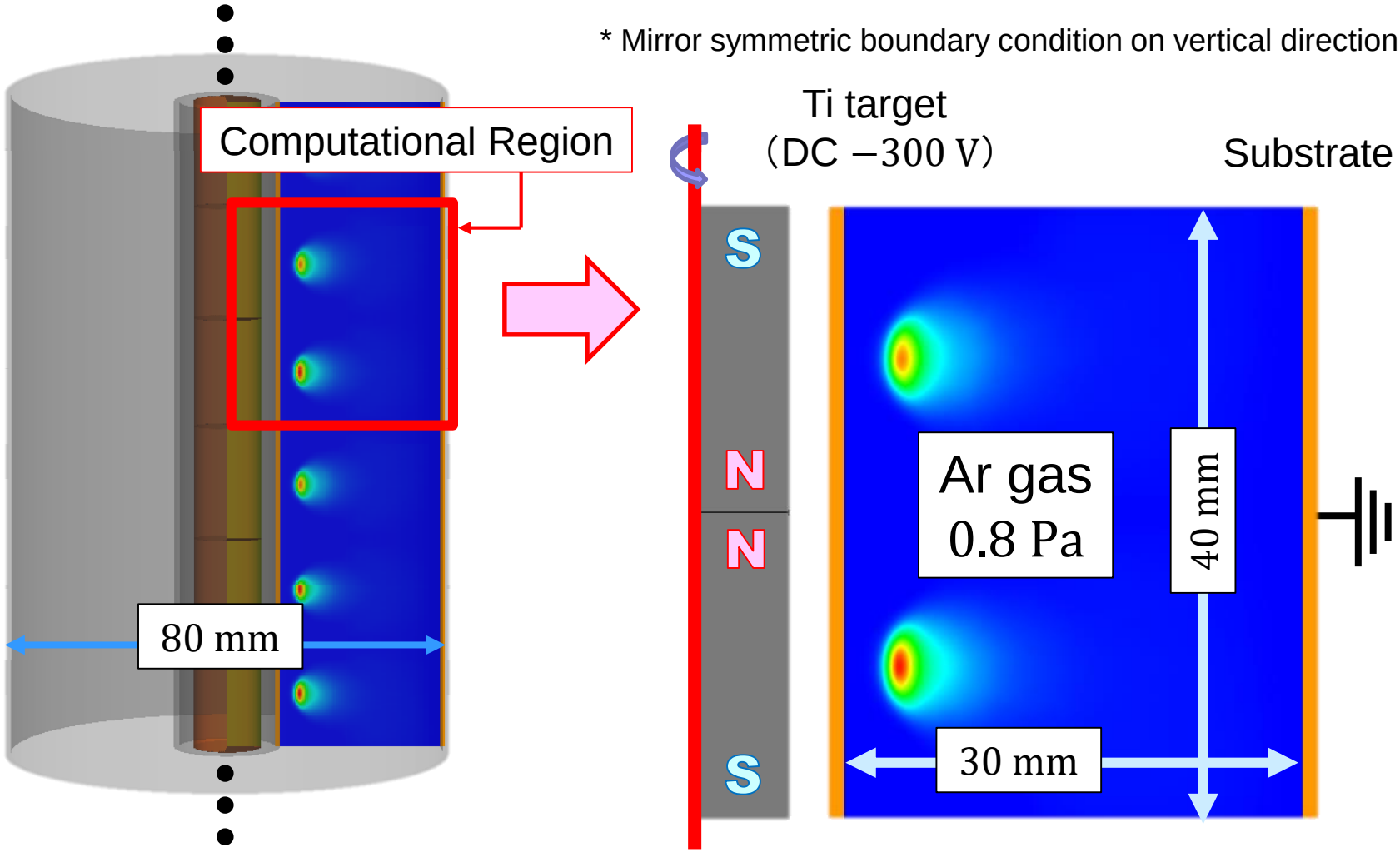
WAVE FRONT

Model

Ti coating of inner wall of 80 mm pipe

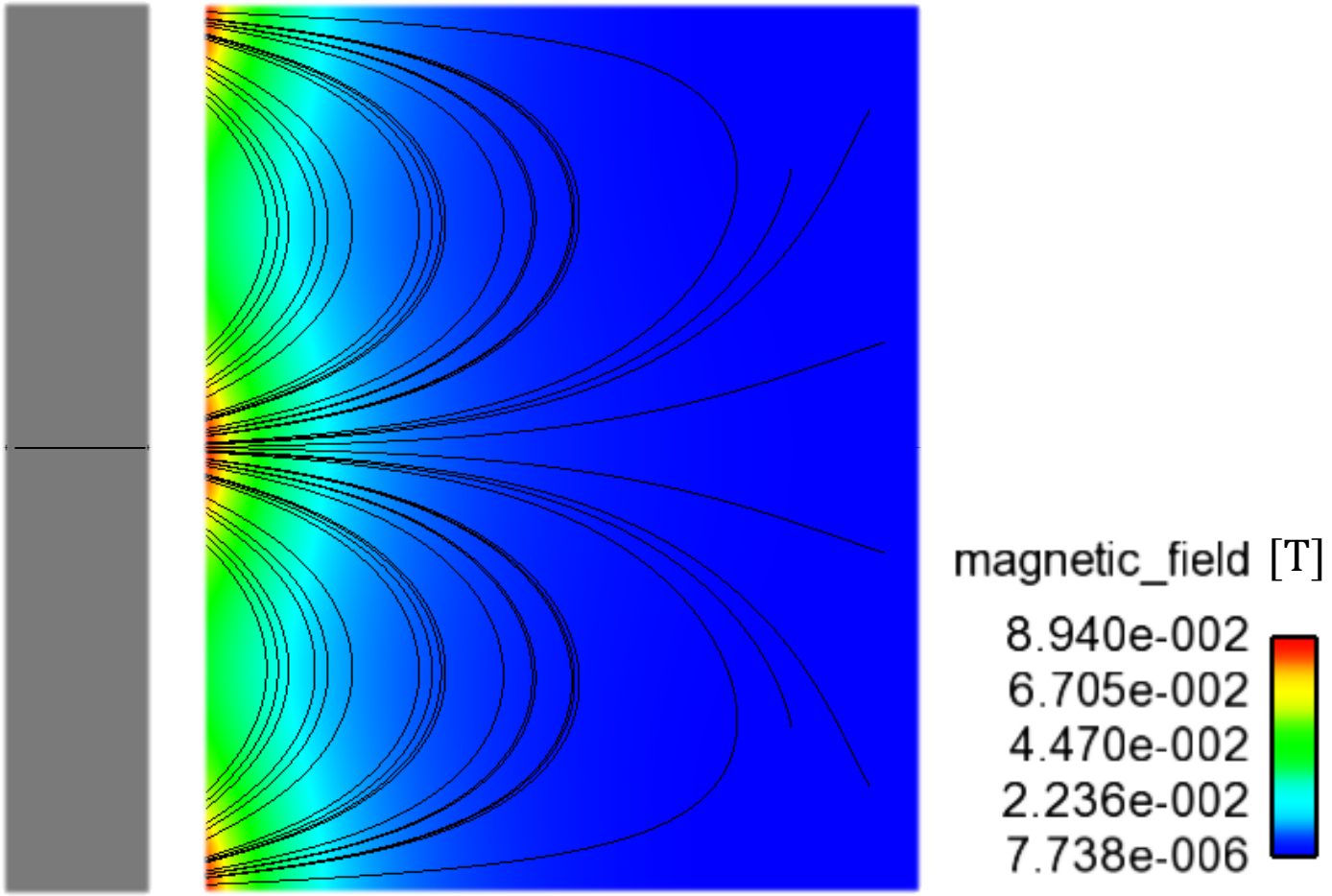
Axi-symmetric model

* Mirror symmetric boundary condition on vertical direction



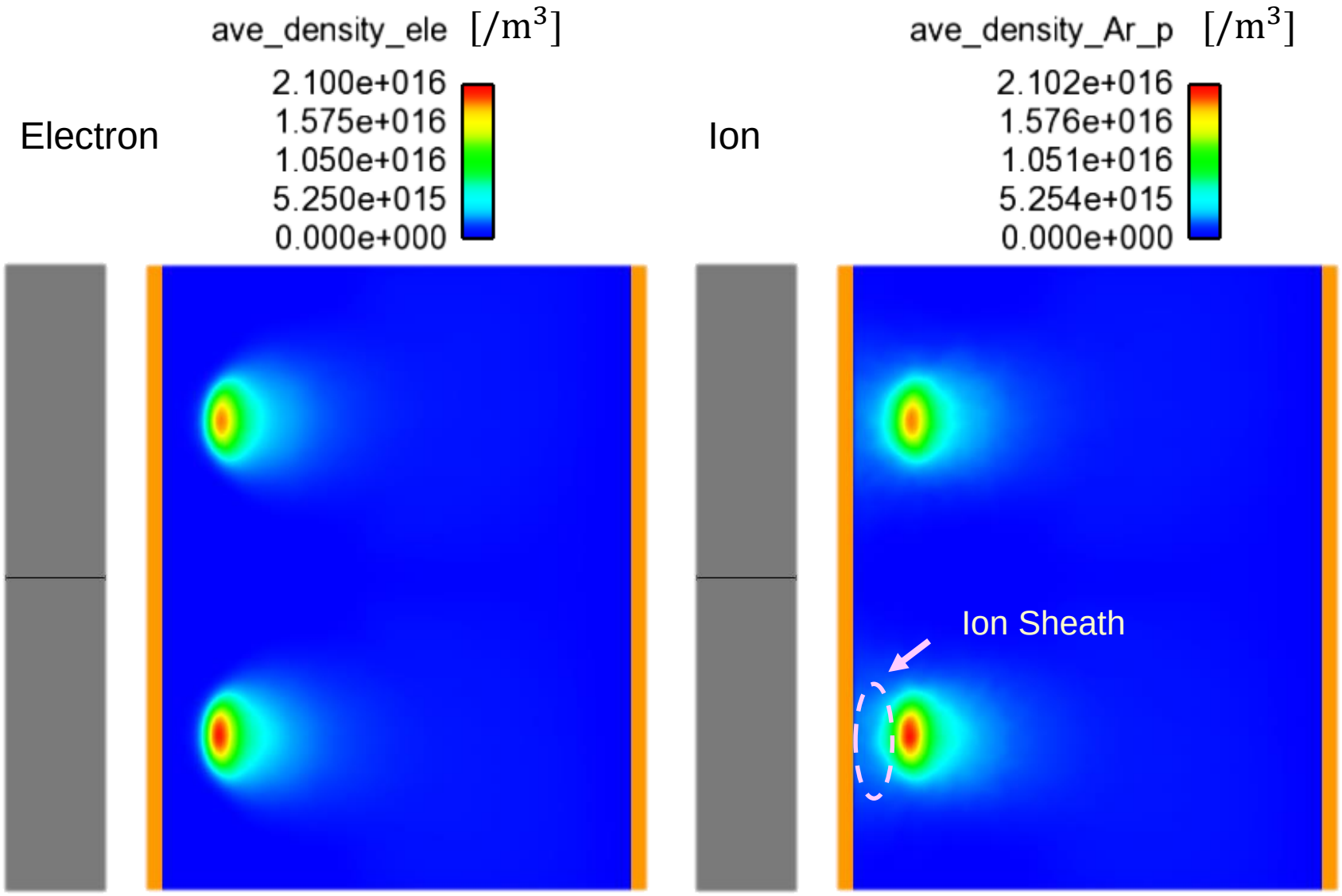
Magnetic Field

* Solid line denotes magnetic flux



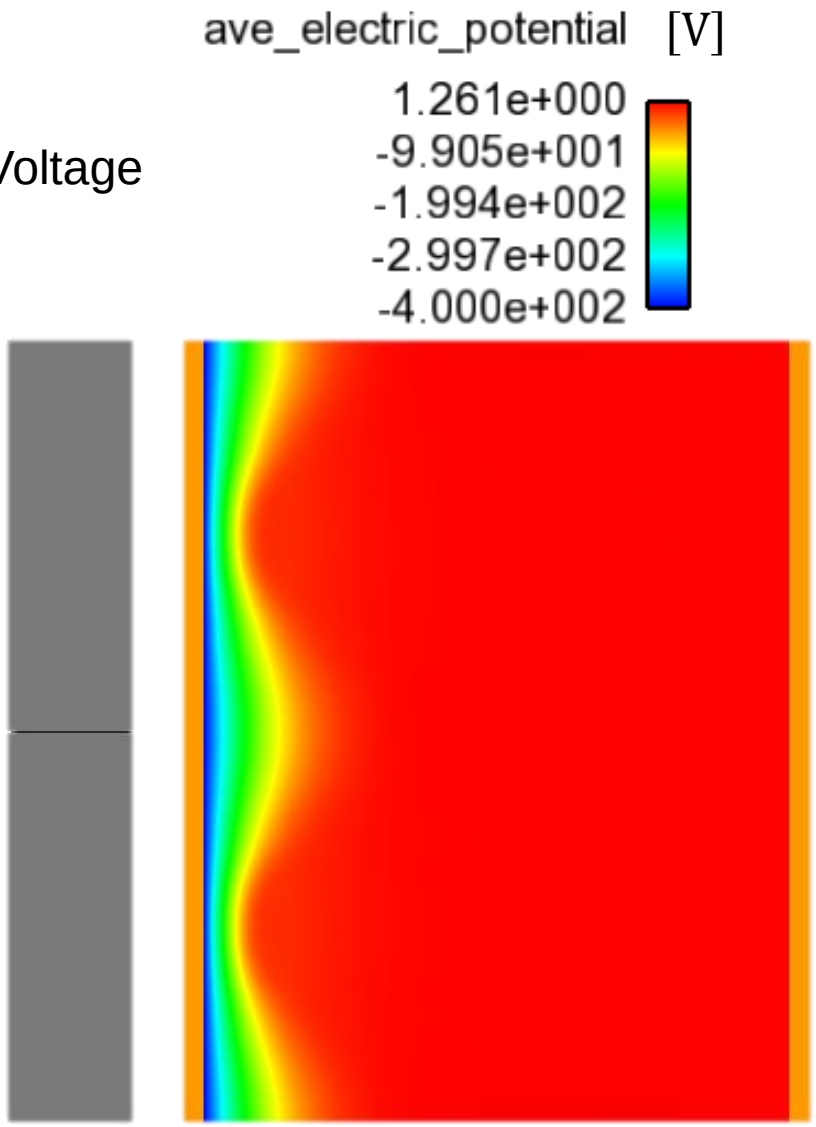
Plasma Density

Magnetron Sputtering for Cylindrical Target

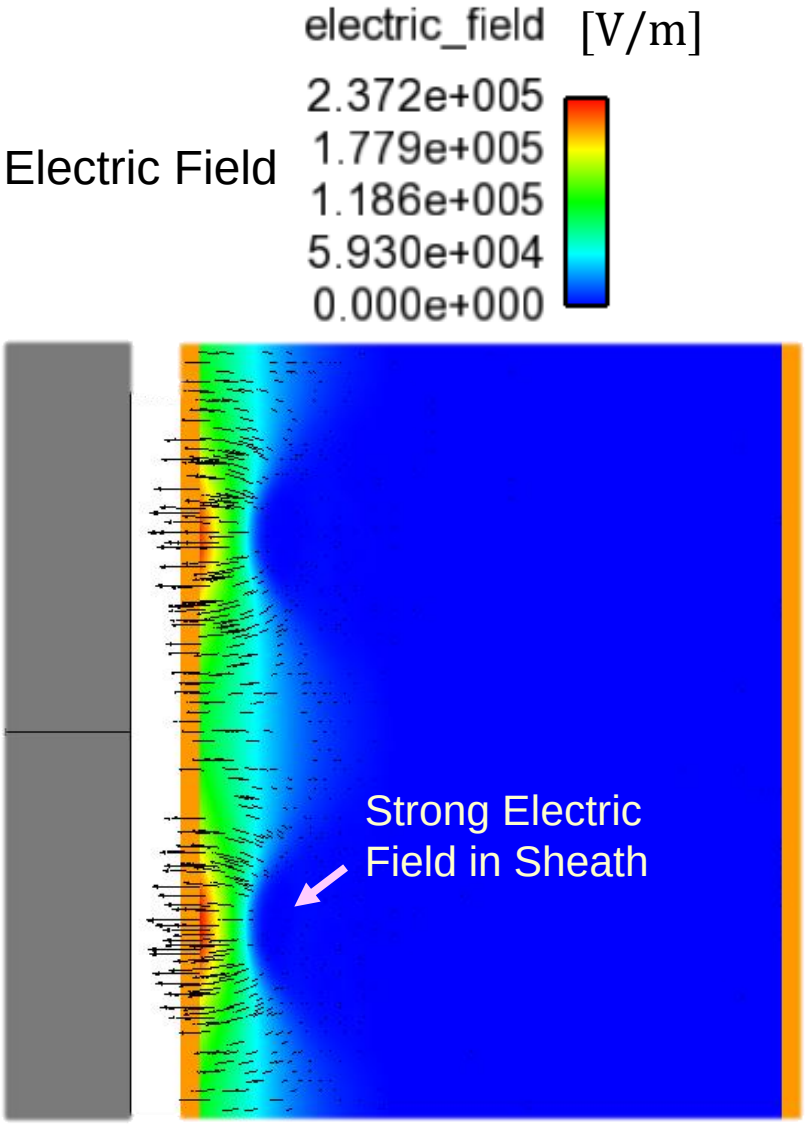


Voltage/Electric Field

Voltage



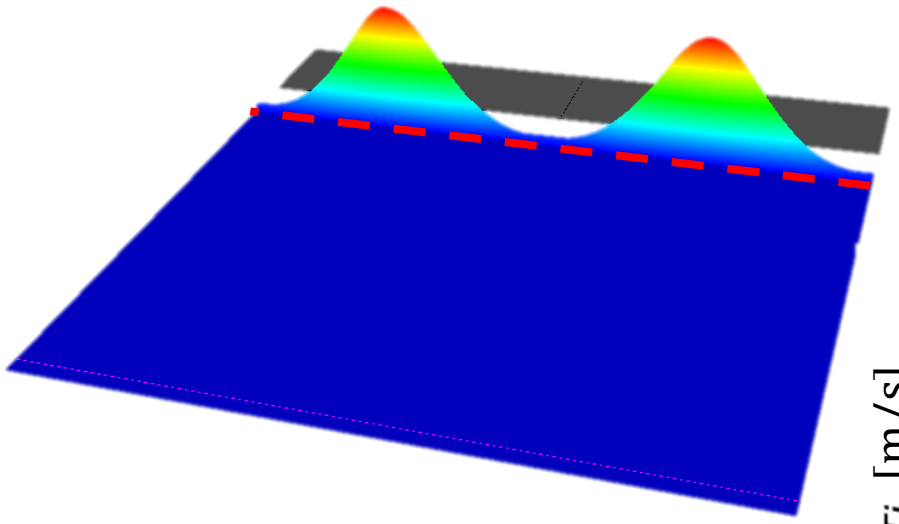
Electric Field



Sputtering

Magnetron Sputtering for Cylindrical Target

Ion Energy Flux on Target Surface

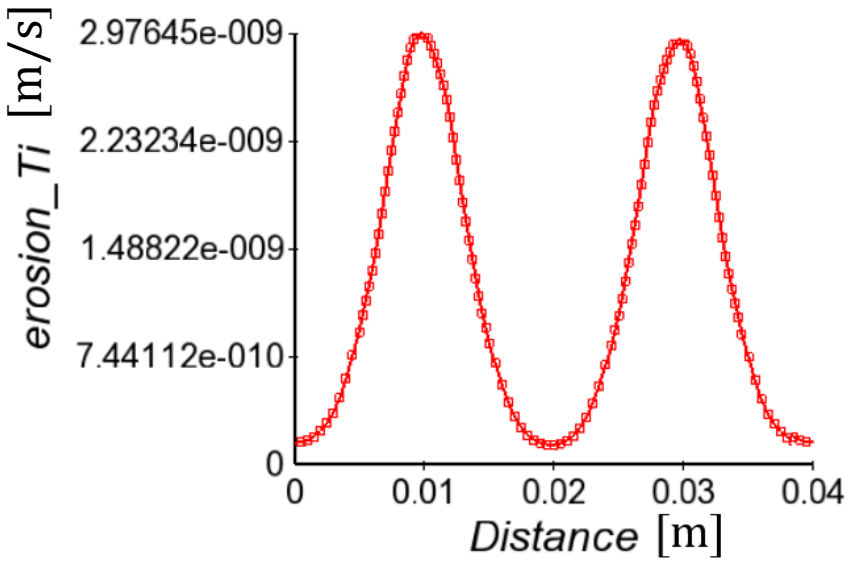


ave_flux_energy_Ar_p $[\mathrm{W/m^2}]$

4.354e+003
3.266e+003
2.177e+003
1.089e+003
0.000e+000

(On Target)
Current $\sim 5.5\ \mathrm{A/m^2}$
Power $\sim 2.2\ \mathrm{kW/m^2}$

Erosion Rate of Ti on Target Surface



Deposition

Density of
Sputtered Particle