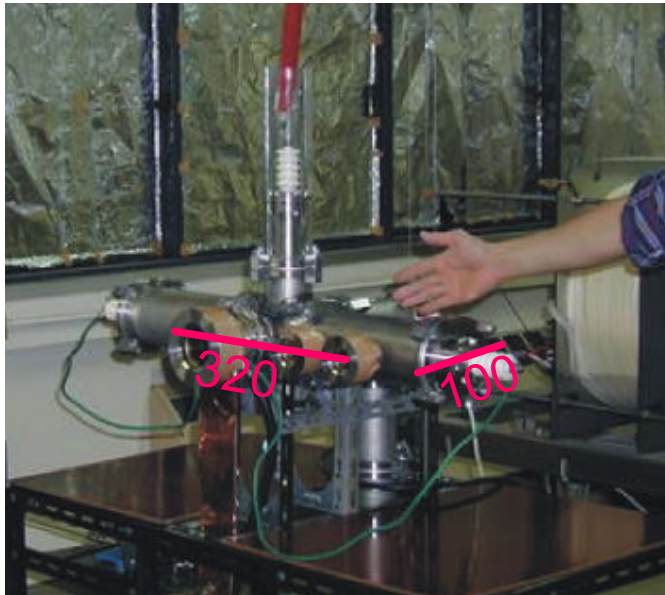
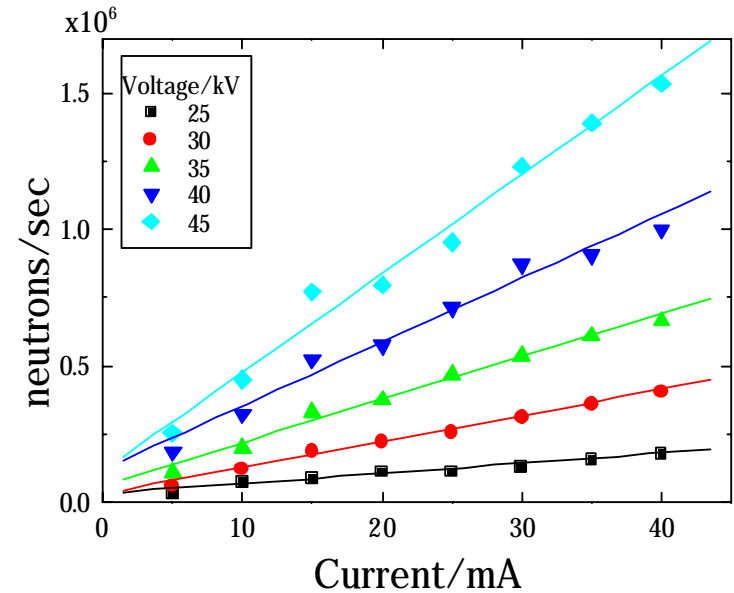


Cylindrical IECF at Kyoto Univ.



Chamber diameter :100mm

Distance between anodes :320mm



- NPR has increased over 10^6 neutrons/sec
- Achieve the level of other devices
- Introduction of ECR Ion source is underway



Spherical Device Simulation

Analysis of Spatial Fusion Reaction Distributions in the Spherical IECF Device using a Particle Code

- Previous works

About discharge characteristics

- low V , high P — electron maintain discharge
- high V , low P — energetic neutral maintain discharge

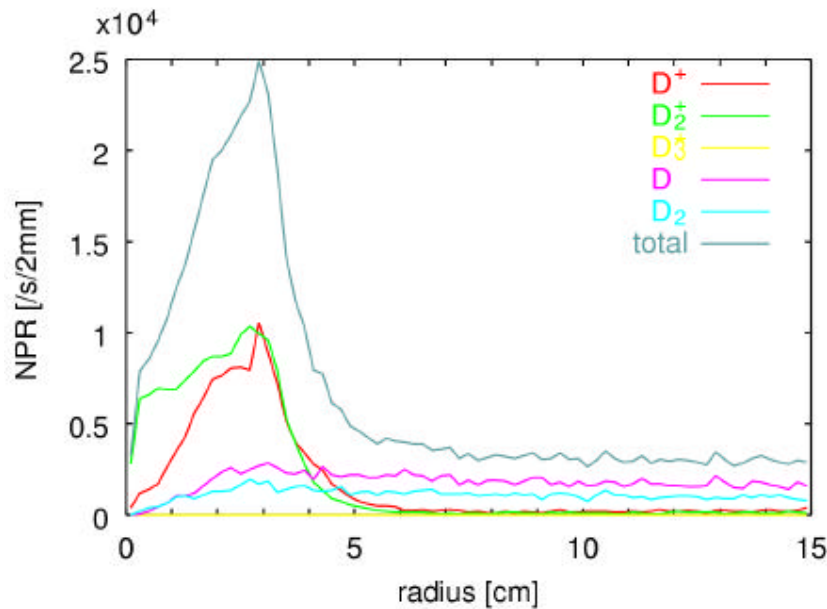
- This year

- Simulation at various parameters
- Stabilized and long time simulation — steady discharge
- Implement fusion reaction — spatial distribution

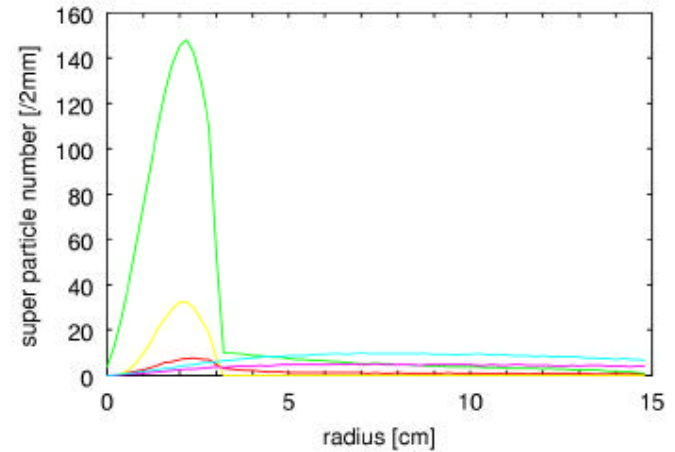


Spatial Fusion Reaction Distribution

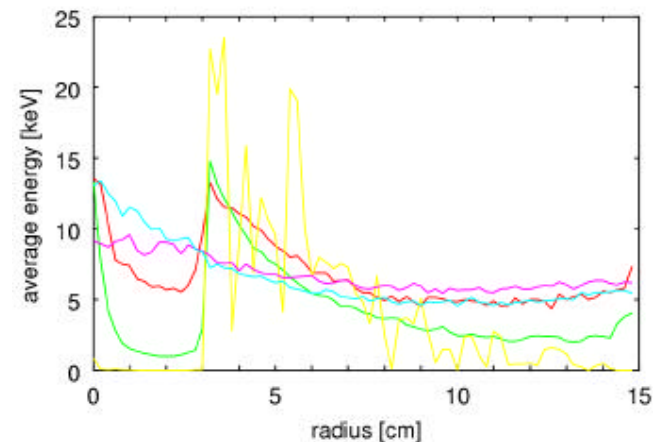
6mTorr, 20mA, 47.7kV



- Ions-background – peak around the cathode
- Neutral-background – uniformly distributed all over the device



Spatial distribution of each species



Averaged energy