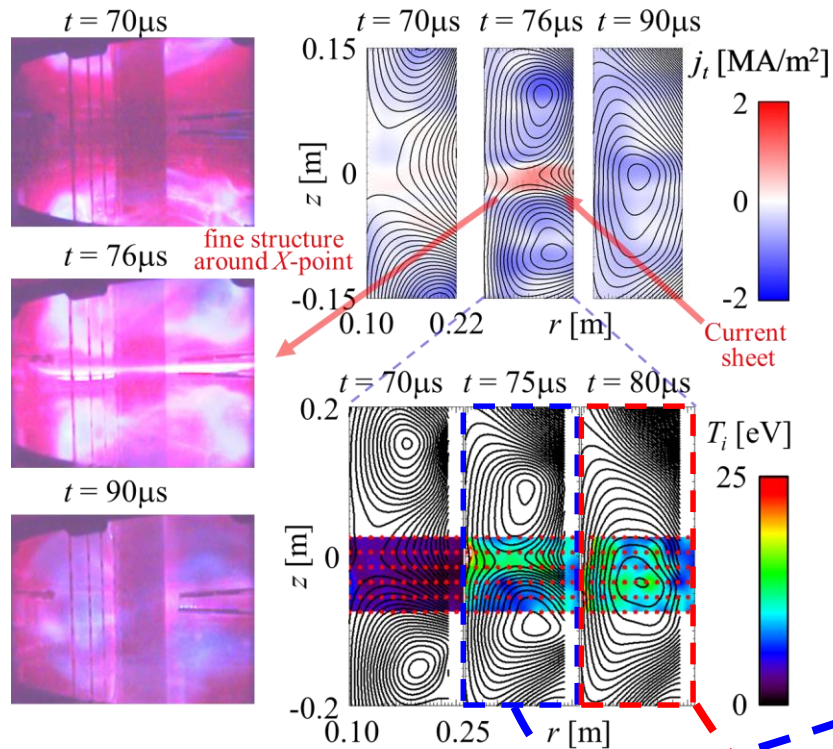


EX/P3-22: Investigation of ion heating/transport process during CS-free merging plasma startup of spherical tokamak

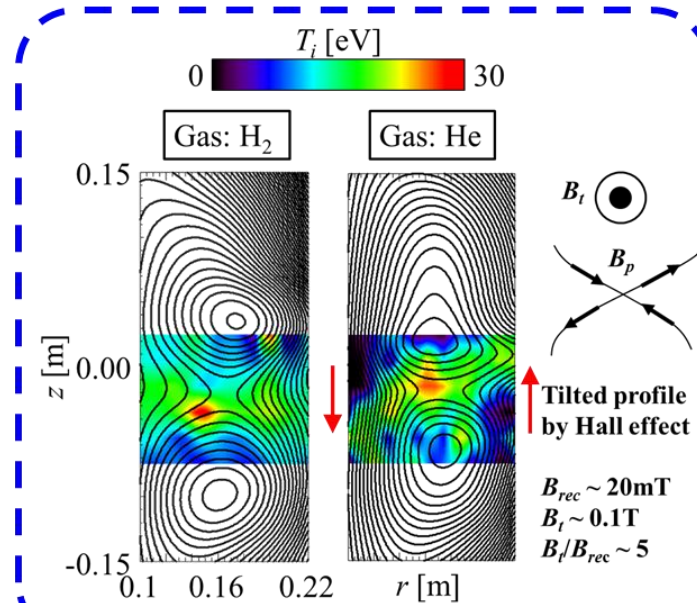
Heating time scale

- **Phase1: during merging**
- **Phase2: after merging**



Phase1: ~ acceleration phase ~

- Heating around diffusion region
- Tilted profile formation with higher mass ratio (Hall effect)



Phase2: ~ confinement phase ~

- Contribution of better toroidal plasma confinement
- Downstream heating propagates vertically on closed flux surface

