



Transport simulation analysis of peripheral plasma with the open and the closed LHD divertor

TH/P6-39, G. Kawamura (NIFS)

- ◆ Effects of different divertor configurations of LHD on plasma, neutral and impurity transport have been investigated by using EMC3-EIRENE code.
- ◆ Change from the open to the closed divertor configuration causes;
 - Neutral gas compression under the dome, see Fig. 1. Good agreement with measurement in wide range of electron density with fixed heating.
 - Larger plasma-neutral interaction leads to higher n_e and lower T_e . Pumping with core fueling can reduce electron density in divertor regions.
 - Larger particle flux onto divertor plates and larger impurity generation.
 - Larger impurity amount in the ergodic region but at the same level as the open configuration when impurity screening exists in high n_e condition.

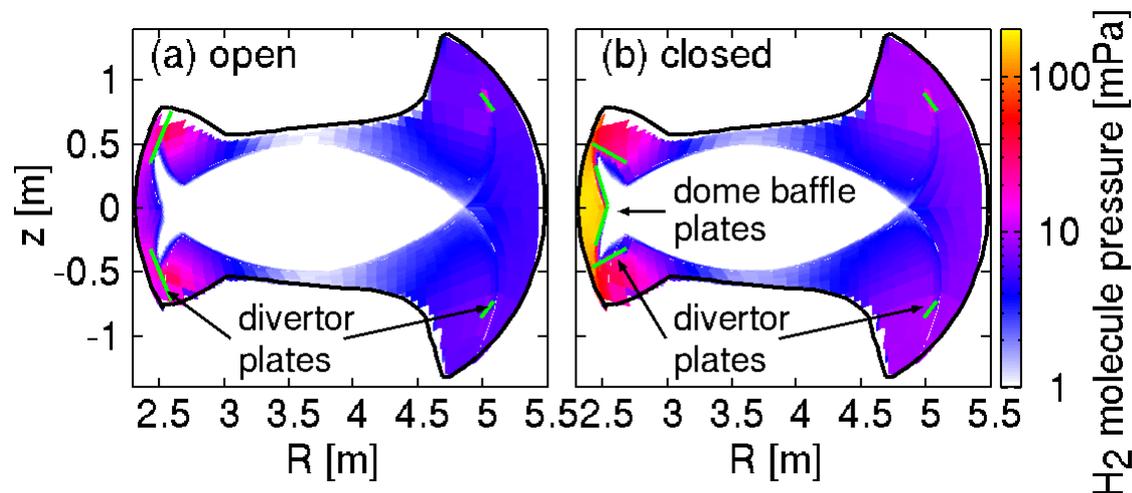


Fig. 1: Neutral gas pressure for different divertor configurations