

# (TG2) Turbulence Topical Group Report



Date: Oct. 12, 2022

Oct. 13, 2022 (T. Tokuzawa)

Time: 9:45 - 11:00

Shot#: 180160 – 183 (24 shots)

Prior wall conditioning: D2(Fri. Sat. Sun.), He(Mon.)

Divertor pump: ON

Gas puff: D2 , Pellet: None

NBI#(1, 2, 3, 4, 5)=gas(H, H, H, H, H)=P(4.2, 3.0, 1.2, 3.7, - )MW

ECH(77GHz)=ant(5.5-Uout (or 1.5U), 2-OUR)=P(703, 792)kW

ECH(154GHz)=ant(2-OLL, 2-OUL , 2-OLR)=P(723, 799, 825)kW

ECH(56GHz)=ant(1.5U)=P( - )kW

ICH(3.5U, 3.5L, 4.5U, 4.5L)=P(0.56, 0.58, 0.75, - )MW

Neutron yield integrated over the experiment =  $6.2 \times 10^{13}$

Remarks

NBI #5 was not available due to trouble.

Topics

1. Isotope effect of high Ti plasma (H. Sakai, K. Tanaka)

# Investigation of isotope effect on high- $T_i$ plasma (H. Sakai (Kyushu Univ.), K. Tanaka)

Shot No: #180160~180183 (24 shots)

Experimental conditions: ( $R_{ax}$ , Polarity,  $B_t$ ,  $\gamma$ ,  $B_q$ ) = (3.6 m, CCW, 2.75 T, 1.2538, 100 %)

Gas-puff:  $D_2$

## Motivation

To discuss isotope effect in high- $T_i$  plasma, we will perform experiments changing only the bulk ion species 'H-rich' and 'D-rich' under the same heating species.

## Results

- ✓ D-rich ( $D/H+D \sim 0.8$ ) plasmas were obtained due to wall conditioning from last weekend.
- ✓ Unfortunately, high- $T_i$  plasmas did not realize due to NB#5 trouble.
- ✓ However, D-rich plasmas using H NB were obtained.



NEXT TARGET

12/8

H-rich plasmas with same heating condition as this time will be aimed.

