

Summary slide for paper EX/P5-12

J.Ongena et al. “Physics and application of ICRH at W7-X”

- An ICRH antenna system is under construction for W7-X. It can deliver pulses of up to 10s for frequencies between 25-38 MHz at power levels of 1-2MW, depending on the coupling.
- Main aim is to produce fast particles ($>100\text{keV}$) needed to verify the confinement properties of the optimized stellarator W7-X at high densities above 10^{20}m^{-3} .
- Main ICRH scenario planned for use in W7-X is the three-ion heating scenario. This newly developed scenario is recently tested on JET (see OV-1.) and Alcator C-Mod (see)
- The ICRH antenna at W7-X can also be used for wall conditioning (ICWC), plasma startup, plasma heating and current drive.