



IAEA FEC 2014

Contribution ID: 367

Type: **Poster**

Features of Regular Discharges in Uragan-3M Torsatron

Friday 17 October 2014 08:30 (4 hours)

The Uragan-3M device is equipped with two antennas which are fed by RF power with the frequency below ion cyclotron. The frame antenna was used for pre-ionization and the three-half turn (THT) antenna makes plasma heating. Such a regime of heating is briefly described in Ref. 1. In this experimental series, the radial profiles of CV and H-alpha lines intensity and the second cyclotron harmonic emission are measured using a pulse-by-pulse technique. The results of these measurements and Biot-Savart calculations could be explained by existence of a small central area with relatively good plasma confinement surrounded by a zone where the confinement is poor. If so, the relatively low average electron temperature and high RF power needed to sustain plasma are the consequences.

Country or International Organisation

Ukraine

Paper Number

EX/P7-45

Author: Dr MOISEENKO, Vladimir (Institute of Plasma Physics of NSC "Kharkiv Institute of Physics and Technology")

Co-authors: Mr KULAGA, A (Institute of Plasma Physics of NSC KIPT, Kharkiv, Ukraine); Mr LOZIN, A (Institute of Plasma Physics of NSC KIPT, Kharkiv, Ukraine); Mr SHAPOVAL, A (Institute of Plasma Physics of NSC KIPT, Kharkiv, Ukraine); Prof. GARKUSHA, I (Institute of Plasma Physics of NSC KIPT, Kharkiv, Ukraine); Mr KOZULYA, M (Institute of Plasma Physics of NSC KIPT, Kharkiv, Ukraine); Mr ZAMANOV, N (Institute of Plasma Physics of NSC KIPT, Kharkiv, Ukraine); Dr PAVLICHENKO, R (Institute of Plasma Physics of NSC KIPT, Kharkiv, Ukraine); Dr BONDARENKO, V (Institute of Plasma Physics of NSC KIPT, Kharkiv, Ukraine); Dr KONOVALOV, V (Institute of Plasma Physics of NSC KIPT, Kharkiv, Ukraine); Mr ROMANOV, V (Institute of Plasma Physics of NSC KIPT, Kharkiv, Ukraine); Prof. VOITSENYA, V (Institute of Plasma Physics of NSC KIPT, Kharkiv, Ukraine); Mr MIRONOV, Yu (Institute of Plasma Physics of NSC KIPT, Kharkiv, Ukraine)

Presenter: Dr MOISEENKO, Vladimir (Institute of Plasma Physics of NSC "Kharkiv Institute of Physics and Technology")

Session Classification: Poster 7