

Abstract Submitted
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Optical Measurements of Hybrid ECR and Helicon discharges

LUTFI OKSUZ, ALI GULEC, Suleyman Demirel Univ. Physics Department, AHMED M. HALA, KACST, FERHAT BOZDUMAN, ERDOGAN TEKE, Suleyman Demirel Univ. Physics Department, MELEK KIRISTI, Suleyman Demirel Univ. Chemistry Department, ERDAL DIKMEN, Suleyman Demirel Univ. Physics Department, AYSEGUL OKSUZ, Suleyman Demirel Univ. Chemistry Department — An experimental study was carried to investigate the effects of simultaneously heating of plasma by ECR and Helicon sources. 850 W 2.45 GHz magnetron and axially varying magnetic field produced by permanent magnets were used for ECR system. Also Nagoya type III antenna, which is connected to the rf power source, placed into the magnetic field. The argon plasma was produced separately and simultaneously by ECR and Helicon sources in the same quartz tube at 5 mTorr. The emission spectrum was taken for different rf power. Ar I lines intensities and broadening will be used for plasma electron temperature and density.

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