

THE INFLUENCE OF PLASMA PARAMETERS ON THE ELECTRON TEMPERATURE AND DENSITY

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In this study it was investigated RF-magnetron plasma parameters such as the electron temperature and density at different RF – power and working pressure by using optical emission spectroscopy (OES) and double Langmuir probe. The hydroxyapatite was used as a target for sputtering in pure Ar atmosphere. The RF – power was varied from 100 to 400 W. The study was done at a pressure 0.1 Pa and 0.4 Pa. With the increase of RF – power of the discharge the electron temperature was increased. The degree ionization and electron density were also increased. Moreover, some heterogeneities of the electron temperature and density in different parts of the target were observed.

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