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Ion Temperature Effects on the Sheath Structure in the Magnetized Electronegative Plasma MANSOUR KHORAMABADI, Islamic Azad University, Boroujerd Branch, HAMID GHOMI, Laser and Plasma Research Inst. — The electronegative gases with high absorption ability of the electrons cause to create the so called electronegative plasmas. These plasmas have many applications in plasma processing. In order to control the processes, one has to know the plasma and plasma sheath structure. In material surface processing by magnetron, the presence of an oblique magnetic field modifies the plasma sheath structure. Some authors have investigated the magnetic field effect on the sheath structure of the electronegative plasma. Here we will evaluate the normal to wall component of magnetic field and the negative and positive ion temperature effects on the sheath parameters such as sheath width, particle densities, particle fluxes on the wall, space charge distribution, and wall floating potential in the magnetic electronegative plasmas.

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