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【632】 Planar probe measurements of the low temperature plasmas sheath under a magnetic field of 0.5 T

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The plasma sheath mechanisms are well-known in non-magnetised plasmas, but a model for a sheath in a tilted magnetic field does not exist. In this work, we present the development of a facility to study the sheath of RF plasmas in a tilted magnetic field. We aim at characterising the sheath by determining the potential, the electron and the ion temperatures and densities. To measure these parameters, a movable planar electrostatic probe will be combined with optical emission spectroscopy. In this contribution, first probe measurements in Ar discharges under 0.5T are discussed.

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