

Abstract Submitted
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Structure of a magnetized plasma confined between two dielectric walls EDUARDO AHEDO, DANIEL CARRALERO, Universidad Politécnica de Madrid — The problem is studied with a macroscopic formulation. The small Debye length limit is invoked. The magnetic field is characterized by the incidence angle and its strength. Plasma equations include source terms for ionization and momentum-transfer collisions. The Bohm condition at the edge of the non-neutral sheath determines the strength of the ionization source for a given distance between the walls. The solution of the problem is analyzed for different ranges of the four dimensionless parameters. A three region regime, with similarities with the one found in a related one-wall problem, is found for a doubly distinguished limit of the parameters. The case of grazing incidence merits particular consideration.

Eduardo Ahedo
Universidad Politécnica de Madrid

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