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Magnetic field measurements for N_2 and H_2 discharges from a low frequency RF inductively coupled plasma source CHANDAN KUMAR CHAKRABARTY, University Tenaga Nasional — The electric field due to a strong capacitive coupling between the induction coil and the walls of the plasma chamber is quite large despite the discharge being in the H-mode in N_2 and H_2 gases. And as such, this field will interfere with the measurement of the magnetic field thus causing a higher degree of measurement error. This paper hence describes the use of a centre-tapped coiled magnetic probe for the measurement of magnetic field profiles in 1-D in the low frequency RF inductively coupled plasma source. From these profiles, an independent method to determine the average electron density is shown.

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