

Abstract Submitted
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Langmuir Probe RF Plasma Compensation using Simulation

Method AASIM YOUSIF AZOOZ, Professor — The problem Langmuir probe data deformation due to RF pickup by the probe is treated through computer simulation method. It is pointed out that proper RF effects compensations can be obtained by proper software treatment of the RF contaminated data. It is demonstrated that correct RF unaffected probe I-V characteristics can be accurately reproduced from the RF contaminated data. This eliminates the need for the use of any filters or other hardware procedures. User friendly matlab based software is presented. The software automatically retrieves the correct RF unaffected I-V characteristics for single and double Langmuir probe data which consequently allows for proper evaluation of plasma parameters such as the plasma electron temperature, electron number density and the electron energy distribution function (EEDF).

Aasim Yousif Azooz
Professor

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