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RF-compensation method using Langmuir probe with auxiliary double probes SE-JIN OH, SEUNG-JU LEE, CHIN-WOOK CHUNG, HanYang University — An rf compensation design using auxiliary double probes connected in parallel with a main measurement probe was developed for Langmuir probe diagnostics. This probe structure can reduce the sheath impedance of the main probe. In our probe design, the sheath capacitance of the probe can be increased and its sheath resistance can be decreased with increasing dc bias differential voltage between the auxiliary double probes. The I-V characteristics curve and electron energy distribution functions measured by our probe system had sufficient rf compensation performance in inductively coupled plasmas.

Se-Jin Oh
HanYang University

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