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Biased substrate effects on ion characteristics in magnetized inductively coupled plasma¹ SANGHYUN JUN, HONG YOUNG CHANG, Korea Advanced Institute of Science and Technology — Biased substrate can affect the plasma parameters related to ion heating. We suggest that bulk ions accelerated through sheath become energetic neutrals at the surface, and the neutrals may heat bulk ions again. DC bias is coupled to the substrate parallel and perpendicular to the magnetic field. The velocity distribution functions of the heated ions can be measured by diode LIF(Laser Induced Fluorescence) technique at 668.6nm for argon ion metastable LIF in magnetized ICP. We can take ion temperature, density and drift velocity from the velocity distribution functions.

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