

## Electron Kinetic Property of a Magnetized Dual-Frequency Capacitively Coupled Plasma

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Spatially resolved electron-energy-distribution functions (EEDFs) in a magnetized dual-frequency (60 and 2 MHz) capacitive discharge are numerically investigated by using one-dimensional particle-in-cell/Monte Carlo collision simulations. It is shown that the electron kinetic property of the EEDFs of the total energy in different spatial positions changes from being nonlocal to local by the magnetic field. Though the nonlocal property of the electrons between the discharge center and the vicinity of the high-frequency electrode disappears for a magnetic field of 100 G, the nonlocal property of the low-energy electrons is nearly conserved between the discharge center and the vicinity of the low-frequency electrode due to the secondary electrons emitted from the LF electrode.

[1] S. J. You and H. Y. Chang, *Phys. Plasmas* 13, 043503 (2006)

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