

CAMT Seminar

“Mechanisms of ion wind generation in atmospheric-pressure discharges”

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Location: Main Conference Room (1st floor), Bldg. A12

Center for Atomic and Molecular Technologies (CAMT)

(A12 棟 1 階会議室)

Abstract

The ion wind can be generated in atmospheric pressure air when high voltage relative to ground is applied to some sharp conductors, for example needles, wires and blades. It is mainly induced by electrostatic forces linked to corona discharge. Due to the properties of absence of mechanical motion and silence, ion wind generators have many potential applications for external and internal flow control, dust collection, and even ion thrusters etc. Although many researchers worldwide have investigated the ion wind experimentally and numerically, the inner mechanisms of ion wind generation are still not quite clear. In this presentation, I will present some experimental results on the ion wind generation and its application to dust collection, and also some preliminary numerical results on ion wind generation mechanisms.

(Host: Satoshi Hamaguchi Ext:7913)