

INFLUENCE OF THE ION THERMAL MOTION ON THE BOHM CRITERION

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S u m m a r y

The Bohm criterion is one of the basic points in the treatment of the formation of a near-electrode plasma sheath. This criterion was formulated under the assumption that the plasma ions have zero temperature and electrons are described by the Boltzmann distribution. In the present paper, we study the influence of the ionic temperature on the screening of a plane electrode under the floating or fixed potential. It is shown that the thermal motion of ions leads to a decrease of the critical value of the ion velocity.