THE BULK PLASMA POTENTIAL AS A TOOL FOR THE DESCRIPTION OF THE INTERACTION OF DUST GRAINS

V.I. Vishnyakov

I.I Mechnikov Odesa National University
(*2, Dvoryans'ka Str., Odesa 65026, Ukraine;*
e-mail: pipeaes@te.net.ua)

S u m m a r y

The mutual electrostatic influence of isolated electrodes placed in a thermal plasma is investigated. It is shown that the measured value of a floating potential depends on the bulk plasma potential. The spatial distribution of the bulk plasma potential is used to dsecribe the interaction of dust grains. As the ion drag force which is determined by the bulk plasma potential gradient and the force of electric interaction have different directions, the formation of the equilibrium spatial distribution of dust grains in thermal plasmas is possible.