

# **An application of the dust grain charging model to determination of secondary electron spectra**

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Dust grains can be found in many cosmic as well as laboratory plasmas. Grains are charged to various surface potentials due to many charging processes — photoemission, electron/ion attachment and secondary emissions, field emission, etc. Among them, the secondary electron emission can take an important role in the case of presence of hot electrons. Since a part of secondaries has not energy high enough to overcome the surface potential barrier, the resulting grain charge is determined not only by the secondary emission yield (related to the grain material and size) but also by the secondary electron spectrum.

We have developed a model of secondary electron emission from small dust grains. In the present contribution, we discuss the profile of secondary emission yield that can be received from the model and the measured equilibrium grain charge both as functions of an incident electron beam energy. Comparison of these quantities leads to an estimation of secondary electron spectra.