

ELECTRON
DISTRIBUTION ON A DEFORMED
LIQUID-HELIUM SURFACE

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S u m m a r y

A simple quasiclassical statistical model for the description of electrons on a liquid-helium surface in an external electric field is proposed. The model involves the electrostatic interaction energy with due regards to the medium polarization and electron interactions associated with the surface deformation. The explanation of some phenomena observed in the experiments is given. In particular, a method for numerical calculation of inhomogeneities of the charge distribution in an external electric field is introduced. The obtained results can be used to explain the peculiarities of the electron distribution function measured in experiments.