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Simulation of Interaction Between RF Plasmas and Roughly Surface ILGIZAR SAGBIEV, Kazan State Technological University, OLGA PANKRA-TOVA, VICTOR ZHELTOUKHIN, Kazan State University — An interaction between RF plasmas and roughly surface at pressure 13.3-133 Pa was investigated theoretically. A sheath near the specimen treated in RF plasmas consists of two zones. The first one is the Debay layer about 10  $\mu$ m by thickness and the second one is oscillatory zone from 0.5 up to 2 mm by thickness. In the last electrons move synchronous to electric field change. The main role of oscillatory zone is acceleration of ions up to 100 eV. Ion stream is focused on surface asperities due to bending of electric intensity lines in the Debay layer.

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