

PROPERTIES OF DIFFERENT SIZE PARTICLE
STRUCTURES FORMED IN A MAGNETIC FIELD

*V.Yu. Karasev, E.S. Dzlieva, M.A. Ermolenko,
A.Yu. Ivanov, M.S. Golubev*

Institute of Physics, St. Petersburg State University
(1, *Ulianovskaya Str., Str., Peterhof,*
St. Petersburg 198504, Russia)

S u m m a r y

We present the results of experimental researches of the behavior of dust structures formed by particles with different properties (material densities, sizes, forms) under the external influences (applied magnetic field). Only monolayers in structures of a complex geometrical form are used in the experiments. The parameters that can affect the structure and the properties of a glow discharge are selected. The strength of a magnetic field, at which the rotation direction changes the sign, depends linearly on the gas pressure and is independent of the discharge current.