Experimental study of dust macroparticles charging under action UV-radiation.

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Present work deals with experimental study of macroparticles positive charging under UV-radiation that acted on dusty formations. Mechanism of dust particles photoemission charging is very important for understanding of processes that take place in the space dust formations, top layers of planet atmosphere, on the surface of cosmic body without atmosphere and so on. Investigations were carried out in argon atmosphere at normal pressure with particles of different materials. Dust formation was subjected to radiation. The power and frequency content of this radiation is close to corresponding parameters of sun radiation near the top layers of Earth atmosphere. Owing to electron photoemission the macroparticles became positively charged. The estimation of this charge value was made in present work. It is about 500 elementary charges for micron particles.

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