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Plasma forces on deposited particles LUCAS HEIJMANS, SANDER NIJDAM, Eindhoven University of Technology — A plasma can have many effects on a substrate. In this contribution we focus on its effects on micrometer sized particles on the substrate. We are especially interested in forces acting on these particles. These have been suggested to be responsible for the lunar glow observed by the Apollo mission astronauts. They have recently also attracted interest as a possible cleaning mechanism for the high-tech industry. We will present experimental measurements of the forces acting on a particle on a substrate under influence of a plasma. To this extend we have developed two specialised experimental setups. They use extreme accelerations (up to one million times the earth gravitational acceleration) to balance forces on the particle. We will show quantitative measurements of the plasma force effects, and show what underlying physical effects cause them.

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