On the adhesion in the formation of dusty plasmas near the surface of the Moon

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The problems of adhesion are discussed from the point of view of formation of dusty plasmas at the Moon. It is shown that adhesion forces are directly connected with the strength of the lunar regolith. The lunar regolith is a source of dust particles for plasma system over the surface of the Moon. Dust particles can be lifted from the surface due to the processes of meteoroid impacts and electrostatic forces, and the strength of the lunar regolith defines the amount of dust particles over the surface. The adhesion forces depend on the nature of the contacting bodies, the properties of the surfaces, and the contact area. The problems of the influence of roughness of the dust particles on the intensity of adhesion and the dusty plasma formation are discussed.