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# INVESTIGATING LUNAR DUST INTERACTION: CUBESAT EXPERIMENT TO ANALYZE SUBSTANCE RESPONSE ON THE MOON'S SURFACE

**Abstract**

This abstract describes a ground-breaking experiment designed to investigate the relationship between lunar dust and a material placed on the moon's surface using a CubeSat. This study primarily aims to evaluate the material's reaction to exposure to lunar dust and cosmic rays in the lunar environment. The material will be carefully deployed as part of the experiment using CubeSat technology, enabling accurate monitoring and examination of how it reacts to lunar dust particles and cosmic radiation. Through analyzing the material's characteristics and changes brought about by lunar dust interaction, important information about how lunar regolith affects exterior materials will be obtained. This work provides vital information for the creation of materials resistant to lunar climatic conditions, which will have a substantial impact on space exploration and future lunar missions.