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Method to Investigate the Charging Characteristics of Lunar Dust Particles STACY IRWIN, SAMUEL DURRANCE, Florida Institute of Technology, CHARLES BUHLER, ASRC Aerospace, CARLOS CALLE, Electrostatics and Surface Physics Laboratory, NASA Kennedy Space Center — We have designed an experiment to investigate the induction charging and charge decay characteristics of lunar dust particles. The induction and charge decay characteristics of granular materials depend on their surface resistivity. Since the surface resistivity properties of hydrophilic materials can be easily controlled with humidity, we have conducted initial experiments with borosilicate glass beads in a 10-20 kV constant electric field at various humidities in a controlled environmental chamber. We report on the results of these initial experiments.

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