Methods for Ion Optics Simulations of Secondary Emissions in LDEX

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The Lunar Dust Experiment (LDEX) aboard the Lunar Atmosphere and Dust Environment Explorer (LADEE) relies upon secondary emissions for its ion detections.   This will explore the methods of simulation for secondary emissions using SIMION. SIMION allows us to map the electric field within LDEX and simulate the characteristics of secondary emissions. For curved target surfaces it is useful to simulate the trajectories of both dust entering the instrument and their resultant secondary emissions. This poster will examine methods for secondary emission simulations in LDEX specifically. This puts observations by LDEX into their proper context.