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**Measuring Auger Signatures Using a Rotatable, High-Resolution Retarding Field Analyzer Faraday Cup Detector** JASON KITE<sup>1</sup>, J.R. DENNISON<sup>2</sup>, Utah State University — Single event energy losses of electron scattering have been observed in the angle- and energy-resolved electron emission spectra. The surface sensitive Auger signature is commonly used to characterize sample quality and determine surface species via their emission energy signature. Auger measurements are usually accomplished with a lock-in amplifier and electrostatic analyzer or LEED-style retarding field analyzer. Our measurements confirm that Auger peaks can also be measured with a simple retarding field analyzer Faraday cup detector. Design details and sample measurements are presented. The signature Auger peaks measured on polycrystalline Au of the MNN transitions, at 1720 eV and 2030 eV, compare very well with those in the literature. Peak dependence on incident energy and emission angle are also discussed. This work is sponsored by the NASA Space Environments and Effects Program.

<sup>1</sup>Rocky Mountain Space Grant Consortium

<sup>2</sup>The NASA Space Environments and Effects Program

Jason Kite  
Utah State University

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