

SPECTRAL DIRECTIONAL REFLECTANCE OF APOLLO 12

FINES AS A FUNCTION OF DENSITY

by

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ABSTRACT

The effect of material density on the spectral directional reflectance was obtained for Apollo 12 sample 12070. The reflectance was obtained for angles of illumination of 10, 20, 30, and 45 degrees and for densities of approximately 1.3, 1.4, 1.6, and 1.8 gms per cc. In general the reflectance increases with increasing density by approximately 20 percent from the lowest to the highest value of the density over the spectral range studied. The Apollo 12 measurements are compared to Apollo 11 results and the Apollo 12 reflectance is generally higher for the wavelength range studied.