

COS-GTO: Pluto's Mid-UV Reflectance

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Scientific Category: SOLAR SYSTEM

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Abstract

We seek to measure Pluto's albedo below 2100\AA , to better constrain surface composition. COS observations will provide a substantial improvement in the S/N of Pluto spectra from <1800 to 2100\AA . Accumulation of past HST/FOS spectra yields extremely low S/N below 2000 (S/N of only 1-3 in 100 bins; Krasnopolsky 2001). We expect to achieve $S/N\sim 10$ at 1900 with 10 binning. In addition to spectrally broad albedo measurements, these observations could reveal line or molecular band emission, such as C I 1931 or CO 1993.

Investigators:

	Investigator	Institution	Country
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Number of investigators: 2

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Target Summary:

Target	RA	Dec	Magnitude
PLUTO			V = 13.5 +/- 0.5, F(2300)=4E-16

Observing Summary:

Target	Config Mode and Spectral Elements	Flags	Orbits
PLUTO	COS/NUV Spectroscopic G230L		5

Total prime orbits: 5

This is a COS GTO project, no scientific justification is needed.