



11537 - COS-GTO: NUV Spectra of Bright Kuiper Belt Objects

Cycle: 17, Proposal Category: GTO/COS

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) KBO-2005-FY9	COS/NUV	1	27-Apr-2010 21:01:59.0	yes

1 Total Orbits Used

ABSTRACT

NUV spectra of Kuiper Belt Objects (KBOs) other than Pluto have never yet been obtained. We seek to use COS's sensitivity to determine NUV KBO reflectance slopes and to compare/contrast different KBO spectra by observing two of the brightest, 2005 FY9 and 2003 EL61, across the full NUV band. These particular KBOs are known to have some distinctive characteristics, prominently showing solid methane (2005 FY9) and water ice (2003 EL61) absorption in near-IR spectra. 2003 EL61 is also unique for its elongated shape; its rapid, 3.9-hour rotation period; and the presence of two moons.

OBSERVING DESCRIPTION

Observe 2005 FY9 for a single orbit, obtaining FUV spectra with G230L. Use 3 grating tilts (2635, 3000, 3360) to get virtually complete NUV coverage. Short observations preclude use of FP-SPLITs, so a single FP-POS will be used for each grating position. Spectrum will be heavily binned, so high resolution provided by FP-SPLITs is unnecessary.

Proposal 11537 - Visit 01 - COS-GTO: NUV Spectra of Bright Kuiper Belt Objects

Wed Apr 28 01:02:03 GMT 2010

Visit	Proposal 11537, Visit 01, scheduling Diagnostic Status: Warning Scientific Instruments: COS/NUV Special Requirements: (none)																																																																																									
	Diagnosics (Visit 01) Warning (Orbit Planner): VISIBILITY OVERRUN																																																																																									
Solar System Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Level 1</th> <th>Level 2</th> <th>Level 3</th> <th>Window</th> <th>Ephem Center</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>KBO-2005-FY9</td> <td>TYPE=ASTEROID,A=45.3543437367 5758,E=0.1632982512538566,I=29.00 224714616008,O=79.4885698495363, W=295.2988171604592,M=152.68230 11734256,EQUINOX=J2000,EPOCH =04-JAN-2010:00:00:00</td> <td></td> <td></td> <td></td> <td>EARTH</td> </tr> </tbody> </table>	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center	(1)	KBO-2005-FY9	TYPE=ASTEROID,A=45.3543437367 5758,E=0.1632982512538566,I=29.00 224714616008,O=79.4885698495363, W=295.2988171604592,M=152.68230 11734256,EQUINOX=J2000,EPOCH =04-JAN-2010:00:00:00				EARTH	<p><i>Comments: Orbital parameters updated 1/20/2010; values obtained from JPL Small-Body Database Browser, http://ssd.jpl.nasa.gov/sbdb.cgi#top</i></p> <p><i>solution date 2009-Jul-09 18:04:44 based on 777 obs.</i></p> <p><i>Formal errors on sky through Cycle 18: < 0.5" (three sigma), from JPL Horizons ephemeris generator, http://ssd.jpl.nasa.gov/horizons.cgi</i></p>																																																																										
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