



16537 - Cycle 29 COS NUV Spectroscopic Sensitivity Monitor

Cycle: 29, Proposal Category: CAL/COS

(Availability Mode: RESTRICTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
Dr. William J. Fischer (PI) (Contact)	Space Telescope Science Institute	wfischer@stsci.edu
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Dr. Kate Rowlands (CoI) (Contact)	Space Telescope Science Institute	krowlands@stsci.edu

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>
L1	(1) WD1057+719	COS/NUV	1	22-Aug-2022 14:00:20.0	yes
L2	(1) WD1057+719	COS/NUV	1	22-Aug-2022 14:00:21.0	yes
L3	(1) WD1057+719	COS/NUV	1	22-Aug-2022 14:00:23.0	yes
M1	(2) G191B2B	COS/NUV	1	22-Aug-2022 14:00:25.0	yes
M2	(2) G191B2B	COS/NUV	1	22-Aug-2022 14:00:27.0	yes

5 Total Orbits Used

ABSTRACT

This program monitors the sensitivity of three NUV gratings to detect any changes due to contamination or other causes. Observations execute twice a year (in approximately February and August). Beginning in Cycle 24, additional cenwaves were added for the medium-resolution gratings (G185M/2010, G285M/2850, G225M/2306, and G225M/2410). Beginning in Cycle 26, monitoring of G285M was discontinued due to its low sensitivity and lack of usage over the past few HST cycles. Given these considerations, the user community is urged to use STIS instead. If for any reason there is a need to use COS/G285M, the monitoring of this mode will be reinstated.

OBSERVING DESCRIPTION

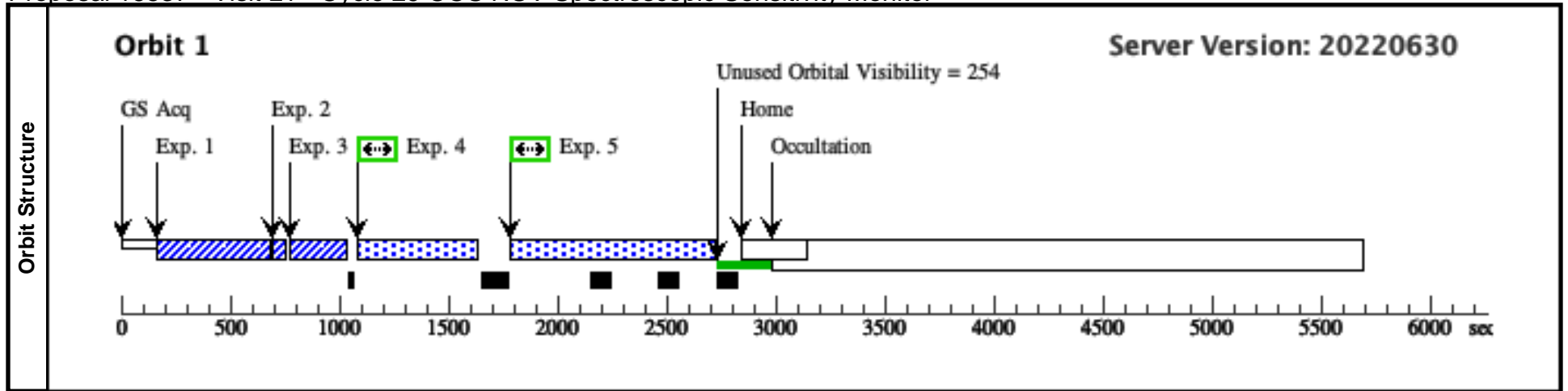
Obtain exposures in three NUV gratings -- G230L, G185M, and G225M -- two times a year in order to measure the time-dependent sensitivity. The first two gratings have stable behavior, while the last is experiencing a steady sensitivity decline. Visits for L modes (L1, L2) and M modes (M1, M2) are one orbit each, for a total of four orbits. This was increased from four to six orbits for Cycles 24 and 25, because four extra cenwaves were added to the M gratings. It was reduced back to four orbits in Cycle 26 due to the removal of G285M from the program.

For Cycle 29, the exposure and buffer times were updated for the G225M exposures due to the nontrivial TDS of that grating. No updates were needed for the G230L or G185M exposures.

Proposal 16537 - Visit L1 - Cycle 29 COS NUV Spectroscopic Sensitivity Monitor

Mon Aug 22 18:00:28 GMT 2022

Visit	Proposal 16537, Visit L1, completed Diagnostic Status: No Diagnostics Scientific Instruments: COS/NUV Special Requirements: SCHED 100%; BETWEEN 07-FEB-2022:00:00:00 AND 28-FEB-2022:00:00:00																											
	Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>WD1057+719</td> <td>RA: 11 00 34.2200 (165.1425833d) Dec: +71 38 2.99 (71.63416d) Equinox: J2000</td> <td>Proper Motion RA: -0.00973 sec of time/yr Proper Motion Dec: -0.02 arcsec/yr Epoch of Position: 2000.0</td> <td>V=14.68</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td colspan="6"> <i>Comments: HST FASTEX standard PM, coords from USNOB</i> <i>GSC2 coords are 11:00:34.25, 71:38:02.97, 1997.19 epoch</i> Category=STAR Description=[DA] Extended=NO </td> </tr> </tbody> </table>										#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	WD1057+719	RA: 11 00 34.2200 (165.1425833d) Dec: +71 38 2.99 (71.63416d) Equinox: J2000	Proper Motion RA: -0.00973 sec of time/yr Proper Motion Dec: -0.02 arcsec/yr Epoch of Position: 2000.0	V=14.68	Reference Frame: ICRS	<i>Comments: HST FASTEX standard PM, coords from USNOB</i> <i>GSC2 coords are 11:00:34.25, 71:38:02.97, 1997.19 epoch</i> Category=STAR Description=[DA] Extended=NO				
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Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																		
	1	G230L - AC Q/SEARCH (COS.sa.102 6871)	(1) WD1057+719	COS/NUV, ACQ/SEARCH, PSA	G230L 2635 A	SCAN-SIZE=3; STEP-SIZE=1.767			0.7 Secs (0.7 Secs) [==>]	[1]																		
	2	G230L - AC Q/PEAKXD (COS.sa.102 6873)	(1) WD1057+719	COS/NUV, ACQ/PEAKXD, PSA	G230L 2635 A				1.0 Secs (1 Secs) [==>]	[1]																		
	3	G230L - AC Q/PEAKD (COS.sa.102 6871)	(1) WD1057+719	COS/NUV, ACQ/PEAKD, PSA	G230L 2635 A	CENTER=FLUX-W T-FLR; NUM-POS=9.0; STEP-SIZE=0.6			0.7 Secs (0.7 Secs) [==>]	[1]																		
	4	G230L - 263 5 A (COS.sp.102 6883)	(1) WD1057+719	COS/NUV, TIME-TAG, PSA	G230L 2635 A	BUFFER-TIME=48 0; FP-POS=3			540.0 Secs (540 Secs) [==>]	[1]																		
	5	G230L - 295 0 A (COS.sp.102 6886)	(1) WD1057+719	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=30 0; FP-POS=3			850.0 Secs (850 Secs) [==>]	[1]																		



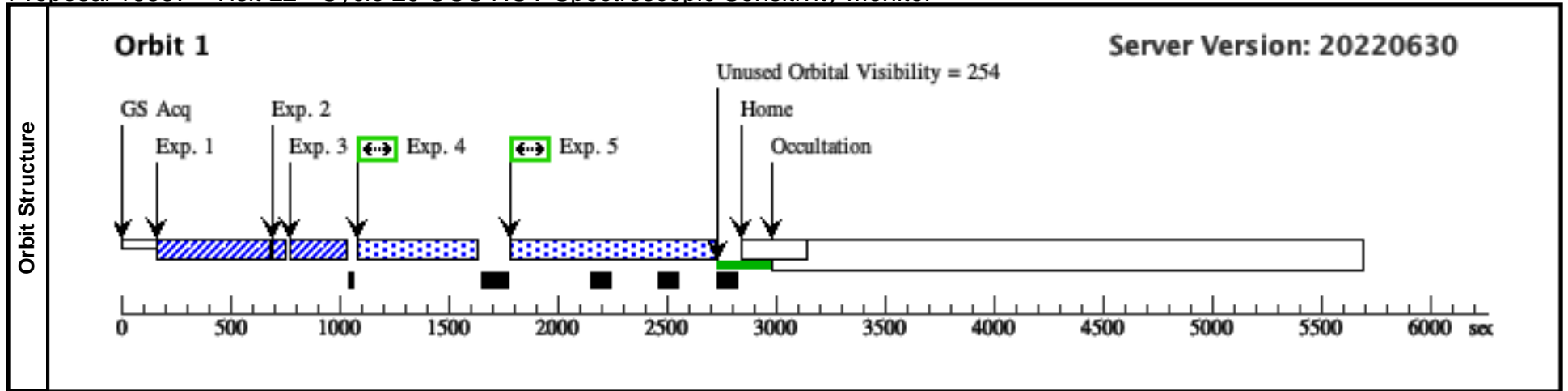
Proposal 16537 - Visit L2 - Cycle 29 COS NUV Spectroscopic Sensitivity Monitor

Mon Aug 22 18:00:28 GMT 2022

Visit	Proposal 16537, Visit L2, failed Diagnostic Status: No Diagnostics Scientific Instruments: COS/NUV Special Requirements: SCHED 100%; BETWEEN 07-AUG-2022:00:00:00 AND 28-AUG-2022:00:00:00				

Fixed Targets	# Name Target Coordinates Targ. Coord. Corrections Fluxes Miscellaneous
	(1) WD1057+719 RA: 11 00 34.2200 (165.1425833d) Dec: +71 38 2.99 (71.63416d) Equinox: J2000 Proper Motion RA: -0.00973 sec of time/yr Proper Motion Dec: -0.02 arcsec/yr Epoch of Position: 2000.0 V=14.68 Reference Frame: ICRS <i>Comments: HST FASTEX standard PM, coords from USNOB</i> <i>GSC2 coords are 11:00:34.25, 71:38:02.97, 1997.19 epoch</i> Category=STAR Description=[DA] Extended=NO

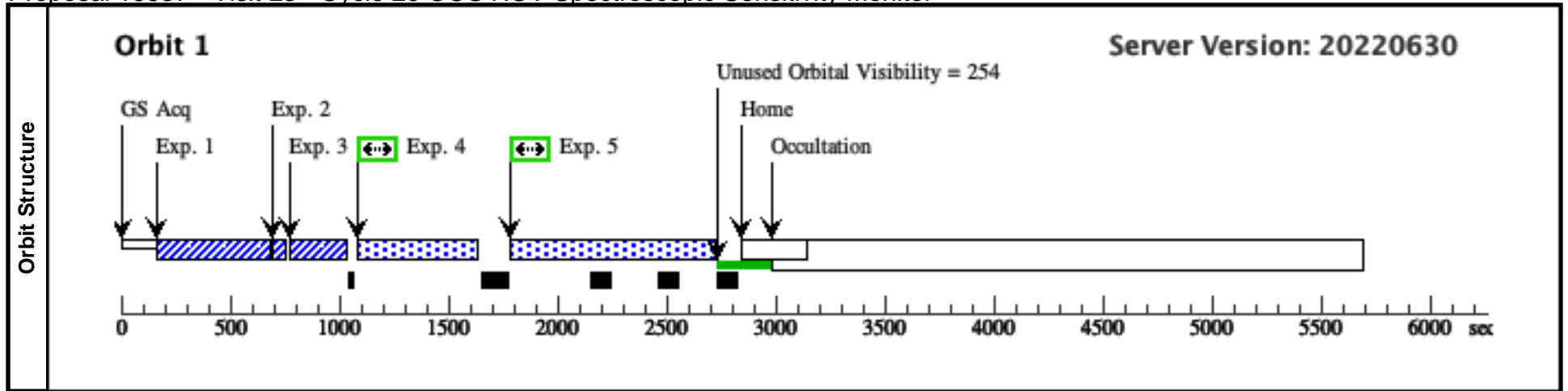
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	G230L - AC Q/SEARCH (COS.sa.102 6871)	(1) WD1057+719	COS/NUV, ACQ/SEARCH, PSA	G230L 2635 A	SCAN-SIZE=3; STEP-SIZE=1.767			0.7 Secs (0.7 Secs) [==>]	[1]
	2	G230L - AC Q/PEAKXD (COS.sa.102 6873)	(1) WD1057+719	COS/NUV, ACQ/PEAKXD, PSA	G230L 2635 A				1.0 Secs (1 Secs) [==>]	[1]
	3	G230L - AC Q/PEAKD (COS.sa.102 6871)	(1) WD1057+719	COS/NUV, ACQ/PEAKD, PSA	G230L 2635 A	CENTER=FLUX-W T-FLR; NUM-POS=9.0; STEP-SIZE=0.6			0.7 Secs (0.7 Secs) [==>]	[1]
	4	G230L - 263 5 A (COS.sp.102 6883)	(1) WD1057+719	COS/NUV, TIME-TAG, PSA	G230L 2635 A	BUFFER-TIME=48 0; FP-POS=3			540.0 Secs (540 Secs) [==>]	[1]
	5	G230L - 295 0 A (COS.sp.102 6886)	(1) WD1057+719	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=30 0; FP-POS=3			850.0 Secs (850 Secs) [==>]	[1]



Proposal 16537 - Visit L3 - Cycle 29 COS NUV Spectroscopic Sensitivity Monitor

Mon Aug 22 18:00:28 GMT 2022

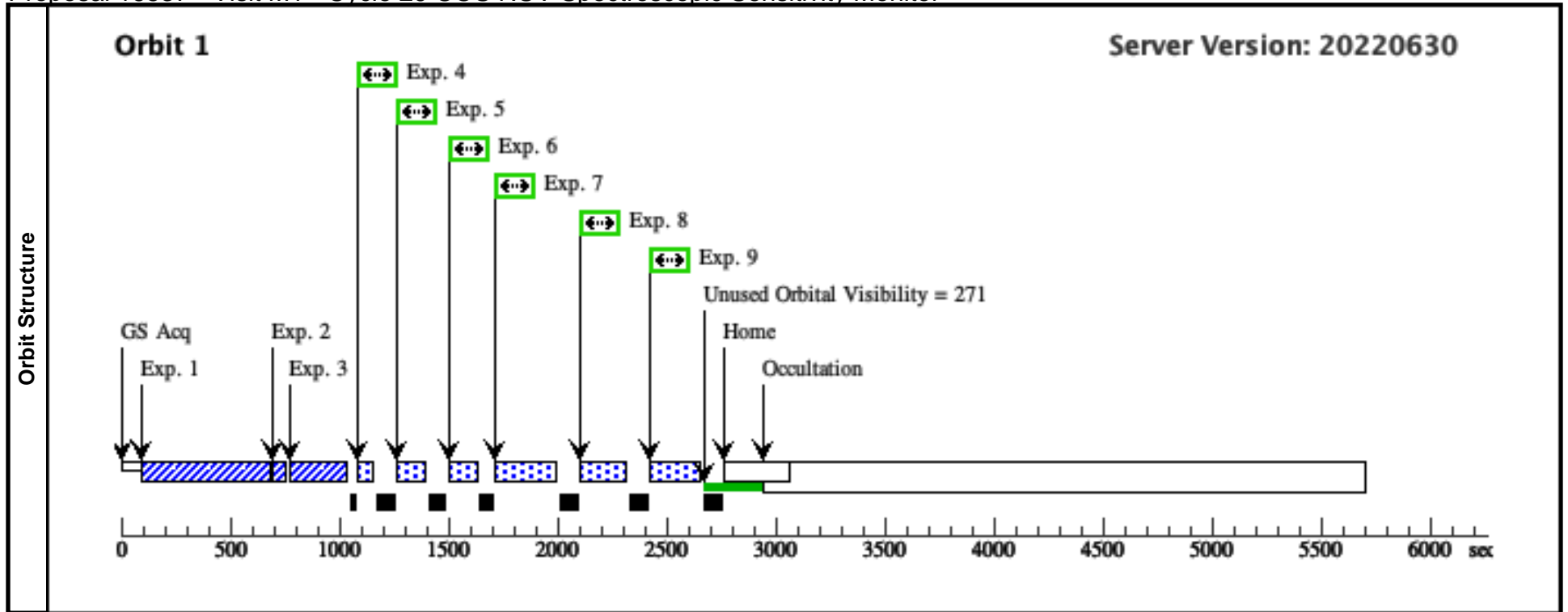
Visit	Proposal 16537, Visit L3 Diagnostic Status: No Diagnostics Scientific Instruments: COS/NUV Special Requirements: SCHED 100%; BETWEEN 05-SEP-2022:00:00:00 AND 18-SEP-2022:00:00:00 Comments: HOPR repeat of visit L2																					
	Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>WD1057+719</td> <td>RA: 11 00 34.2200 (165.1425833d) Dec: +71 38 2.99 (71.63416d) Equinox: J2000</td> <td>Proper Motion RA: -0.00973 sec of time/yr Proper Motion Dec: -0.02 arcsec/yr Epoch of Position: 2000.0</td> <td>V=14.68</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p>Comments: HST FASTEX standard PM, coords from USNOB</p> <p>GSC2 coords are 11:00:34.25, 71:38:02.97, 1997.19 epoch Category=STAR Description=[DA] Extended=NO</p>										#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	WD1057+719	RA: 11 00 34.2200 (165.1425833d) Dec: +71 38 2.99 (71.63416d) Equinox: J2000	Proper Motion RA: -0.00973 sec of time/yr Proper Motion Dec: -0.02 arcsec/yr Epoch of Position: 2000.0	V=14.68
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Proposal 16537 - Visit M1 - Cycle 29 COS NUV Spectroscopic Sensitivity Monitor

Mon Aug 22 18:00:29 GMT 2022

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	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(2)	G191B2B	RA: 05 05 30.6060 (76.3775250d) Dec: +52 49 52.74 (52.83132d) Equinox: J2000	Proper Motion RA: 0.00071 sec of time/yr Proper Motion Dec: -0.0907 arcsec/yr Epoch of Position: 1991.25	V=11.79	Reference Frame: ICRS				
	<i>Comments: coords, PM from Hipparcos</i> <i>Category=STAR</i> <i>Description=[DA]</i> <i>Extended=NO</i>									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	G185M - A CQ/SEARCA H (COS.sa.102 6877)	(2) G191B2B	COS/NUV, ACQ/SEARCH, PSA	G185M 2010 A	STEP-SIZE=1.767; SCAN-SIZE=3			1.0 Secs (1 Secs) [==>]	[1]
	2	G185M - A CQ/PEAKXD (COS.sa.102 6879)	(2) G191B2B	COS/NUV, ACQ/PEAKXD, PSA	G185M 2010 A				1.0 Secs (1 Secs) [==>]	[1]
	3	G185M - A CQ/PEAKD (COS.sa.102 6877)	(2) G191B2B	COS/NUV, ACQ/PEAKD, PSA	G185M 2010 A	STEP-SIZE=0.6; NUM-POS=9.0			1.0 Secs (1 Secs) [==>]	[1]
	4	G185M - 20 10 A (COS.sp.102 6887)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M 2010 A	BUFFER-TIME=80; FP-POS=3			56 Secs (56 Secs) [==>]	[1]
	5	G185M - 19 21 A (COS.sp.102 6891)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M 1921 A	BUFFER-TIME=80; FP-POS=3			47 Secs (47 Secs) [==>]	[1]
	6	G185M - 17 86 A (COS.sp.102 6892)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M 1786 A	BUFFER-TIME=80; FP-POS=3			41 Secs (41 Secs) [==>]	[1]
	7	G225M - 24 10 A (COS.sp.152 0129)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G225M 2410 A	BUFFER-TIME=18 1; FP-POS=3			126 Secs (126 Secs) [==>]	[1]
	8	G225M - 23 06 A (COS.sp.152 0130)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G225M 2306 A	BUFFER-TIME=18 0; FP-POS=3			127 Secs (127 Secs) [==>]	[1]
	9	G225M - 21 86 A (COS.sp.152 0131)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G225M 2186 A	BUFFER-TIME=20 4; FP-POS=3			140 Secs (140 Secs) [==>]	[1]



Proposal 16537 - Visit M2 - Cycle 29 COS NUV Spectroscopic Sensitivity Monitor

Mon Aug 22 18:00:29 GMT 2022

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