11164 - Molecular Hydrogen Disks Around T Tauri Stars

Cycle: 16, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) V2246OPH	NIC2	1	27-Aug-2008 21:01:21.0	yes
02	(6) V2246OPHCAL	NIC2	1	27-Aug-2008 21:01:51.0	yes
03	(2) LKCA15	NIC2	1	27-Aug-2008 21:02:21.0	yes
04	(7) LKCA15CAL	NIC2	1	27-Aug-2008 21:02:44.0	yes
05	(3) UYAUR	NIC2	1	27-Aug-2008 21:03:07.0	yes
06	(8) UYAURCAL	NIC2	1	27-Aug-2008 21:03:31.0	yes
07	(4) SZ41	NIC2	1	27-Aug-2008 21:03:54.0	yes
08	(9) SZ41CAL	NIC2	1	27-Aug-2008 21:04:18.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
09	(5) CSCHA	NIC2	1	27-Aug-2008 21:04:41.0	yes
10	(10) CSCHACAL	NIC2	1	27-Aug-2008 21:05:04.0	yes

10 Total Orbits Used

ABSTRACT

We propose to measure the properties of planetary system-sized disks around Sun-like, pre-main sequence stars by imaging the inner parts of these disks for the first time in gaseous emission from their most dominant constituent, molecular hydrogen gas. Specifically, we will use the F212N filter and NICMOS to determine the spatial distribution of ro-vibrational H2 emission from protoplanetary disks around selected classical and weak-lined T Tauri stars. The target stars are among those detected by members of this team through high resolution, ground-based infrared spectroscopy. The spectra reveal H2 emission at the rest velocities of the stars and at positions spatially coincident with the stars at the spatial resolution of the spectroscopic data. This imaging experiment, which is impossible to do using ground-based facilities, is possible using the NICMOS camera aboard the HST because the point spread function of this system is extremely stable and can be measured to a very high accuracy. This experiment is an important test of the interpretation that the 2.122 micron H2 line emission seen toward T Tauri stars is produced at distances of 10 to 30 AU from the stars, the region in which giant planets are expected to form around these stars. These observations will contribute toward developing a better understanding of the process, likelihood, and timescale for the formation of planets around Sun-like stars.

OBSERVING DESCRIPTION

Each of 5 target stars has a near-identical point-source calibrator (same K magnitude and near-IR colors). The goal is to get high SNR measurements of the PSF for the calibrator and identical measurements of the target stars without reaching the non-linear regime for the detectors. Our 'signal' is the difference between these pairs of images.

The observations are straightforward. Ten orbits, one star per orbit. One camera/fitler (NIC2, F212N) combination for the entire 10 orbits. The same NIC-SPIRAL-DITH-CHOP pattern for all ten orbits with the same CHOP (4.826" = 63.5 px) and the same DITH (1.543" = 20.3 px) for all ten orbits.

The pattern, the chop length, and the dither size are all selected to obtain a well sampled PSF and to keep the star on the NIC2 array in both CHOP positions.

The only difference between the orbits is the selected pre-defined MULTIACCUM sample sequence for each orbit and the number of steps in the SPIRAL pattern. This sequence is identical for each star in a given target/calibrator pair. For each pair, the K magnitude determines the sample sequence, with a goal of obtaining a maximum flux level of approximately 80% of 'saturation' (as estimated using the NICMOS Exposure Time Calculator; once this sample sequence is determined, the number of steps in the SPIRAL pattern is selected to maximize use of the available visibility time during each orbit.

CALIBRATION JUSTIFICATION

The five calibrator stars were not identified in the original proposal; however, time was allocated (one orbit per calibrator; five total calibrators) for these observations.

The calibrator stars in the proposal are selected on the basis of having K magnitudes as nearly identical to the targets as possible and having J-H, H-K, and J-K colors as nearly identical to the targets unreddenned colors as possible (selected from the 2MASS database) and then further identified (Hipparcos/Tycho database) as being non-variable, single stars. Otherwise, the calibrators are almost or entirely never-studied objects.

Visit

Proposal 11164, Visit 01, pi Thu Aug 28 01:05:09 GMT 2008

Diagnostic Status: Warning

Scientific Instruments: NIC2

Special Requirements: GYRO MODE 3GOBAD

Diagnostics

(Visit 01) Warning (Form): Gyro Mode overrides default value of 2G.

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(5)	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=DITHER Number Of Points=21 Point Spacing=1.543 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=4.826 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V2246OPH Alt Name1: DOAR21	RA: 16 26 3.0310 (246.5126292d) Dec: -24 23 36.43 (-24.39345d) Equinox: J2000		V=13.82 K=6.227	Reference Frame: ICRS

Orbit Structure

Visit

Proposal 11164, Visit 02, completed Thu Aug 28 01:05:11 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(5)	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=DITHER Number Of Points=21 Point Spacing=1.543 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=4.826 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	V2246OPHCAL Alt Name1: HD7199 Alt Name2: HIP5529	RA: 01 10 47.2227 (17.6967612d) Dec: -66 11 17.39 (-66.18816d) Equinox: J2000		V=8.04 K=6.229	Reference Frame: ICRS

Orbit Structure

Visit

Proposal 11164, Visit 03, completed Thu Aug 28 01:05:11 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=DITHER Number Of Points=16 Point Spacing=1.543 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=4.826 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	LKCA15	RA: 04 39 17.7790 (69.8240792d) Dec: +22 21 3.52 (22.35098d) Equinox: J2000		V=12.09 K=8.163	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(2) LKCA15	NIC2, MULTIACCUM, NIC2	F212N	SAMP-SEQ=STEP1 ; NSAMP=15		Pattern 1-1 (2)	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]* *[==>(Pattern 5,1)]* *[==>(Pattern 5,2)]* *[==>(Pattern 6,1)]* *[==>(Pattern 6,2)]* *[==>(Pattern 7,1)]* *[==>(Pattern 7,2)]* *[==>(Pattern 8,1)]* *[==>(Pattern 8,2)]* *[==>(Pattern 9,1)]* *[==>(Pattern 9,2)]* *[==>(Pattern 10,1)]* *[==>(Pattern 10,2)]* *[==>(Pattern 11,1)]* *[==>(Pattern 11,2)]* *[==>(Pattern 12,1)]* *[==>(Pattern 12,2)]* *[==>(Pattern 13,1)]* *[==>(Pattern 13,2)]* *[==>(Pattern 14,1)]* *[==>(Pattern 14,2)]* *[==>(Pattern 15,1)]* *[==>(Pattern 15,2)]* *[==>(Pattern 16,1)]* *[==>(Pattern 16,2)]*	***[1]***

Orbit Structure

Visit

Proposal 11164, Visit 04, completed Thu Aug 28 01:05:12 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=DITHER Number Of Points=16 Point Spacing=1.543 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=4.826 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	LKCA15CAL Alt Name1: GSC08973-0837 Alt Name2: TYC8973-837-1	RA: 11 44 28.5489 (176.1189537d) Dec: -60 23 43.60 (-60.39544d) Equinox: J2000		V=10.8 K=8.163	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(7) LKCA15CAL	NIC2, MULTIACCUM, NIC2	F212N	SAMP-SEQ=STEP1 ; NSAMP=15		Pattern 1-1 (2)	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]* *[==>(Pattern 5,1)]* *[==>(Pattern 5,2)]* *[==>(Pattern 6,1)]* *[==>(Pattern 6,2)]* *[==>(Pattern 7,1)]* *[==>(Pattern 7,2)]* *[==>(Pattern 8,1)]* *[==>(Pattern 8,2)]* *[==>(Pattern 9,1)]* *[==>(Pattern 9,2)]* *[==>(Pattern 10,1)]* *[==>(Pattern 10,2)]* *[==>(Pattern 11,1)]* *[==>(Pattern 11,2)]* *[==>(Pattern 12,1)]* *[==>(Pattern 12,2)]* *[==>(Pattern 13,1)]* *[==>(Pattern 13,2)]* *[==>(Pattern 14,1)]* *[==>(Pattern 14,2)]* *[==>(Pattern 15,1)]* *[==>(Pattern 15,2)]* *[==>(Pattern 16,1)]* *[==>(Pattern 16,2)]*	***[1]***

Orbit Structure

Visit

Proposal 11164, Visit 05, completed Thu Aug 28 01:05:13 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(1)	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=DITHER Number Of Points=15 Point Spacing=1.543 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=4.826 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	UYAUR	RA: 04 51 47.3710 (72.9473792d) Dec: +30 47 13.88 (30.78719d) Equinox: J2000		V=12.37 K=7.239	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(3) UYAUR	NIC2, MULTIACCUM, NIC2	F212N	SAMP-SEQ=SCAMRR; NSAMP=25		Pattern 1-1 (1)	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]* *[==>(Pattern 5,1)]* *[==>(Pattern 5,2)]* *[==>(Pattern 6,1)]* *[==>(Pattern 6,2)]* *[==>(Pattern 7,1)]* *[==>(Pattern 7,2)]* *[==>(Pattern 8,1)]* *[==>(Pattern 8,2)]* *[==>(Pattern 9,1)]* *[==>(Pattern 9,2)]* *[==>(Pattern 10,1)]* *[==>(Pattern 10,2)]* *[==>(Pattern 11,1)]* *[==>(Pattern 11,2)]* *[==>(Pattern 12,1)]* *[==>(Pattern 12,2)]* *[==>(Pattern 13,1)]* *[==>(Pattern 13,2)]* *[==>(Pattern 14,1)]* *[==>(Pattern 14,2)]* *[==>(Pattern 15,1)]* *[==>(Pattern 15,2)]*	***[1]***

Orbit Structure

Visit

Proposal 11164, Visit 06, completed Thu Aug 28 01:05:13 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(1)	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=DITHER Number Of Points=15 Point Spacing=1.543 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=4.826 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	UYAURCAL Alt Name1: BD+29-3192 Alt Name2: TYC2104-1043-1	RA: 18 09 41.9488 (272.4247867d) Dec: +29 58 55.60 (29.98211d) Equinox: J2000		V=8.69 K=7.238	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(8) UYAURCAL	NIC2, MULTIACCUM, NIC2	F212N	SAMP-SEQ=SCAM RR; NSAMP=25		Pattern 1-1 (1)	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]* *[==>(Pattern 5,1)]* *[==>(Pattern 5,2)]* *[==>(Pattern 6,1)]* *[==>(Pattern 6,2)]* *[==>(Pattern 7,1)]* *[==>(Pattern 7,2)]* *[==>(Pattern 8,1)]* *[==>(Pattern 8,2)]* *[==>(Pattern 9,1)]* *[==>(Pattern 9,2)]* *[==>(Pattern 10,1)]* *[==>(Pattern 10,2)]* *[==>(Pattern 11,1)]* *[==>(Pattern 11,2)]* *[==>(Pattern 12,1)]* *[==>(Pattern 12,2)]* *[==>(Pattern 13,1)]* *[==>(Pattern 13,2)]* *[==>(Pattern 14,1)]* *[==>(Pattern 14,2)]* *[==>(Pattern 15,1)]* *[==>(Pattern 15,2)]*	***[1]***

Orbit Structure

Visit

Proposal 11164, Visit 07, completed Thu Aug 28 01:05:14 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(4)	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=DITHER Number Of Points=18 Point Spacing=1.543 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=4.826 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	SZ41	RA: 11 12 24.4910 (168.1020458d) Dec: -76 37 5.88 (-76.61830d) Equinox: J2000		V=11.6 K=7.999	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(4) SZ41	NIC2, MULTIACCUM, NIC2	F212N	SAMP-SEQ=STEP1 ; NSAMP=13		Pattern 1-1 (4)	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]* *[==>(Pattern 5,1)]* *[==>(Pattern 5,2)]* *[==>(Pattern 6,1)]* *[==>(Pattern 6,2)]* *[==>(Pattern 7,1)]* *[==>(Pattern 7,2)]* *[==>(Pattern 8,1)]* *[==>(Pattern 8,2)]* *[==>(Pattern 9,1)]* *[==>(Pattern 9,2)]* *[==>(Pattern 10,1)]* *[==>(Pattern 10,2)]* *[==>(Pattern 11,1)]* *[==>(Pattern 11,2)]* *[==>(Pattern 12,1)]* *[==>(Pattern 12,2)]* *[==>(Pattern 13,1)]* *[==>(Pattern 13,2)]* *[==>(Pattern 14,1)]* *[==>(Pattern 14,2)]* *[==>(Pattern 15,1)]* *[==>(Pattern 15,2)]* *[==>(Pattern 16,1)]* *[==>(Pattern 16,2)]* *[==>(Pattern 17,1)]* *[==>(Pattern 17,2)]* *[==>(Pattern 18,1)]* *[==>(Pattern 18,2)]*	***[1]***

Orbit Structure

Visit

Proposal 11164, Visit 08, scheduling Thu Aug 28 01:05:15 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(4)	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=DITHER Number Of Points=18 Point Spacing=1.543 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=4.826 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	SZ41CAL Alt Name1: NLTT22052 Alt Name2: GSC01959-00442	RA: 09 33 49.4096 (143.4558733d) Dec: +24 15 46.25 (24.26285d) Equinox: J2000		V=9.79 K=7.999	Reference Frame: ICRS

	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
Exposures	1		(9) SZ41CAL	NIC2, MULTIACCUM, NIC2	F212N	SAMP-SEQ=STEP1 ; NSAMP=13		Pattern 1-1 (4)	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]* *[==>(Pattern 5,1)]* *[==>(Pattern 5,2)]* *[==>(Pattern 6,1)]* *[==>(Pattern 6,2)]* *[==>(Pattern 7,1)]* *[==>(Pattern 7,2)]* *[==>(Pattern 8,1)]* *[==>(Pattern 8,2)]* *[==>(Pattern 9,1)]* *[==>(Pattern 9,2)]* *[==>(Pattern 10,1)]* *[==>(Pattern 10,2)]* *[==>(Pattern 11,1)]* *[==>(Pattern 11,2)]* *[==>(Pattern 12,1)]* *[==>(Pattern 12,2)]* *[==>(Pattern 13,1)]* *[==>(Pattern 13,2)]* *[==>(Pattern 14,1)]* *[==>(Pattern 14,2)]* *[==>(Pattern 15,1)]* *[==>(Pattern 15,2)]* *[==>(Pattern 16,1)]* *[==>(Pattern 16,2)]* *[==>(Pattern 17,1)]* *[==>(Pattern 17,2)]* *[==>(Pattern 18,1)]* *[==>(Pattern 18,2)]*	***[1]***

Orbit Structure

Visit

Proposal 11164, Visit 09, completed Thu Aug 28 01:05:16 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(3)	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=DITHER Number Of Points=17 Point Spacing=1.543 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=4.826 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	CSCHA	RA: 11 02 25.1160 (165.6046500d) Dec: -77 33 35.95 (-77.55999d) Equinox: J2000		V=11.69 K=8.199	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(5) CSCHA	NIC2, MULTIACCUM, NIC2	F212N	SAMP-SEQ=STEP1 ; NSAMP=15		Pattern 1-1 (3)	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]* *[==>(Pattern 5,1)]* *[==>(Pattern 5,2)]* *[==>(Pattern 6,1)]* *[==>(Pattern 6,2)]* *[==>(Pattern 7,1)]* *[==>(Pattern 7,2)]* *[==>(Pattern 8,1)]* *[==>(Pattern 8,2)]* *[==>(Pattern 9,1)]* *[==>(Pattern 9,2)]* *[==>(Pattern 10,1)]* *[==>(Pattern 10,2)]* *[==>(Pattern 11,1)]* *[==>(Pattern 11,2)]* *[==>(Pattern 12,1)]* *[==>(Pattern 12,2)]* *[==>(Pattern 13,1)]* *[==>(Pattern 13,2)]* *[==>(Pattern 14,1)]* *[==>(Pattern 14,2)]* *[==>(Pattern 15,1)]* *[==>(Pattern 15,2)]* *[==>(Pattern 16,1)]* *[==>(Pattern 16,2)]* *[==>(Pattern 17,1)]* *[==>(Pattern 17,2)]*	***[1]***

Orbit Structure

Visit

Proposal 11164, Visit 10, completed Thu Aug 28 01:05:17 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(3)	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=DITHER Number Of Points=17 Point Spacing=1.543 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	Pattern Type=NIC-SPIRAL-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=4.826 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	CSCHACAL Alt Name1: LTT3222	RA: 08 42 6.9800 (130.5290833d) Dec: -42 56 31.20 (-42.94200d) Equinox: J2000		V=12.68 K=8.168	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(10) CSCHACAL	NIC2, MULTIACCUM, NIC2	F212N	SAMP-SEQ=STEP1 ; NSAMP=15		Pattern 1-1 (3)	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]* *[==>(Pattern 5,1)]* *[==>(Pattern 5,2)]* *[==>(Pattern 6,1)]* *[==>(Pattern 6,2)]* *[==>(Pattern 7,1)]* *[==>(Pattern 7,2)]* *[==>(Pattern 8,1)]* *[==>(Pattern 8,2)]* *[==>(Pattern 9,1)]* *[==>(Pattern 9,2)]* *[==>(Pattern 10,1)]* *[==>(Pattern 10,2)]* *[==>(Pattern 11,1)]* *[==>(Pattern 11,2)]* *[==>(Pattern 12,1)]* *[==>(Pattern 12,2)]* *[==>(Pattern 13,1)]* *[==>(Pattern 13,2)]* *[==>(Pattern 14,1)]* *[==>(Pattern 14,2)]* *[==>(Pattern 15,1)]* *[==>(Pattern 15,2)]* *[==>(Pattern 16,1)]* *[==>(Pattern 16,2)]* *[==>(Pattern 17,1)]* *[==>(Pattern 17,2)]*	***[1]***

Orbit Structure