



8140 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Cycle: 4, Proposal Category: GO

INVESTIGATORS

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OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
NIRSPEC PRISM				
	1	HD253662B-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	(1) HD253662B
	2	HD221356D-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	(2) HD221356D
	3	HIP59933B-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	(3) HIP59933B
	4	HIP11161B-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	(4) HIP11161B
	5	HD116012B-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	(5) HD116012B
	6	etaCncB	NIRSpec Fixed Slit Spectroscopy	(6) etaCncB
	7	HD3861B-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	(7) HD3861B
	8	HD97334B-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	(8) HD97334B

JWST Proposal 8140 (Created: Wednesday, July 9, 2025, 5:00:15AM Eastern Standard Time) - Overview

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
	9	BD+601417B-NIRSPE C	NIRSpec Fixed Slit Spectroscopy	(9) BD+601417B
	10	HD167359B-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	(10) HD167359B
	11	HD203030B-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	(11) HD203030B
	12	G1584C-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	(12) G1584C
	13	HD118865B-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	(13) HD118865B
	14	HD3651B-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	(14) HD3651B
	15	HD131977D-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	(15) HD131977D
	16	WISE1118+3125	NIRSpec Fixed Slit Spectroscopy	(16) WISE1118+3125
MIRI LRS				
	17	HD253662B-MIRI	MIRI Low Resolution Spectroscopy	(1) HD253662B
	18	HD221356D-MIRI	MIRI Low Resolution Spectroscopy	(2) HD221356D
	19	HIP59933B-MIRI	MIRI Low Resolution Spectroscopy	(3) HIP59933B
	20	HIP11161B-MIRI	MIRI Low Resolution Spectroscopy	(4) HIP11161B
	21	HD116012B-MIRI	MIRI Low Resolution Spectroscopy	(5) HD116012B
	22	etaCncB-MIRI	MIRI Low Resolution Spectroscopy	(6) etaCncB
	23	HD3861B-MIRI	MIRI Low Resolution Spectroscopy	(7) HD3861B
	24	HD97334B-MIRI	MIRI Low Resolution Spectroscopy	(8) HD97334B
	25	BD+601417B-MIRI	MIRI Low Resolution Spectroscopy	(9) BD+601417B
	26	HD167359B-MIRI	MIRI Low Resolution Spectroscopy	(10) HD167359B
	27	HD203030B-MIRI	MIRI Low Resolution Spectroscopy	(11) HD203030B
	29	HD118865B-MIRI	MIRI Low Resolution Spectroscopy	(13) HD118865B
	30	HD3651B-MIRI	MIRI Low Resolution Spectroscopy	(14) HD3651B
	31	HD131977D-MIRI	MIRI Low Resolution Spectroscopy	(15) HD131977D
	32	WISE1118+3125-MIRI	MIRI Low Resolution Spectroscopy	(16) WISE1118+3125

ABSTRACT

The frontier of brown dwarf studies is the accurate determination of their atmospheric compositions. However, this task is challenging, as the spectra of L and T brown dwarfs are influenced by silicate clouds, which causes their spectroscopically measured compositions to differ from these objects' actual bulk compositions. To tackle these challenges, we propose NIRSPEC/PRISM and MIRI/LRS 0.6--14 μm spectroscopy for 16 carefully selected high-mass benchmark brown dwarfs, spanning the full L and T spectral types. These brown dwarfs orbit well-characterized FGK parent stars with uniformly measured stellar abundances across sub-solar to super-solar values, providing us with precise bulk compositions (C/O, [M/H], Mg/Si)

from their parent stars, making them unique benchmarks for silicate cloud physics.

(1) Our targets --- including four L0--L2, eight L3--L9, and four T5--T9 benchmark brown dwarfs --- trace the physics of silicate clouds at temperatures before, during, and after cloud condensation. By measuring their C/O and [M/H] from our JWST observations, we will establish the first empirical calibration linking the observable and bulk compositions across the full cloud formation cycle.

(2) Our L3--L9 targets, with their silicate cloud features uniquely probed by MIRI, will allow us to investigate the causal relationship between bulk compositions and the specific types of silicate clouds that form in their atmospheres, directly assessing modern cloud formation theories.

These observations will produce a legacy spectroscopic dataset, offering quantitative context for atmospheric and formation studies of directly imaged exoplanets.

OBSERVING DESCRIPTION

Our program will obtain NIRSPEC/PRISM and MIRI/LRS 0.6--14 μm spectroscopy for 16 L0-T9 benchmark brown dwarfs at a resolution of $R \sim 100$. The widely separated ($\theta > 10''$) parent stars of our targets ensure that their spectroscopic observations will not be affected by contaminating starlight.

Our NIRSPEC target acquisition will achieve $S/N > 40$ for each target. We will use the WATA acquisition mode, the CLEAR filter, the NRSRAPID (J=14-16 mag) or NRSRAPIDD6 (J=16-19 mag) readout patterns, and the SUB32 subarray. For the two faintest targets (J>18 mag), we will use the SUB2048 subarray along with the NRSRAPID readout pattern.

The NIRSPEC/PRISM observations will achieve $S/N > 100$ in 3-4 μm for L0-L9 targets and $S/N > 100$ in 4-5 μm for T5-T9 targets. Spectra of this quality will precisely trace spectral features of key atmospheric molecules, enabling reliable measurements of [M/H] and C/O ratios. We will use PRISM/CLEAR, the NRSRAPID readout pattern, the S200A1 slit, the SUBS200A1 subarray, and the AB nodding pattern.

Our MIRI target acquisition will achieve $S/N > 40$ for each target. We will use the F560W filter for L0-L9 targets and the F1000W filter for T5-T9 targets, along with the FAST readout pattern.

The MIRI/LRS observations will achieve $S/N > 50$ at 9 μm for the cloudy L3-L9 targets and $S/N > 100$ in 5-8 μm for L0-L2 and T5-T9 targets. These

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high-quality spectra will allow us to determine the specific types of silicate clouds present in the atmospheres of L3-L9 targets, and reliably measure C/O and [M/H] across all L0-T9 targets by combining MIRI/LRS with NIRSPEC/PRISM. We will use the Full subarray, the FASTR1 readout pattern, and an AB nodding pattern.

Proposal 8140 - Targets - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	HD253662B	RA: 06 13 53.4200 (93.4725833d) Dec: +15 14 6.00 (15.23500d) Equinox: J2000	Proper Motion RA: 19.677 mas/yr Proper Motion Dec: -156.257 mas/yr Parallax: 0.011692" Epoch of Position: 2000	
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>				
(2)	HD221356D	RA: 23 31 30.9600 (352.8790000d) Dec: -04 05 24.00 (-4.09000d) Equinox: J2000	Proper Motion RA: 169.9 mas/yr Proper Motion Dec: -194.6 mas/yr Parallax: 0.0385" Epoch of Position: 2000	
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>				
(3)	HIP59933B	RA: 12 17 36.4800 (184.4020000d) Dec: +14 27 12.24 (14.45340d) Equinox: J2000	Proper Motion RA: -103.15 mas/yr Proper Motion Dec: -37.55 mas/yr Parallax: 0.01545" Epoch of Position: 2000	
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>				
(4)	HIP11161B	RA: 02 23 36.7000 (35.9029167d) Dec: +52 40 6.60 (52.66850d) Equinox: J2000	Proper Motion RA: -81.121 mas/yr Proper Motion Dec: -61.06 mas/yr Parallax: 0.012649" Epoch of Position: 2000	
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>				
(5)	HD116012B	RA: 13 20 44.2800 (200.1845000d) Dec: +04 09 4.68 (4.15130d) Equinox: J2000	Proper Motion RA: -505.5 mas/yr Proper Motion Dec: 205.7 mas/yr Parallax: 0.0324" Epoch of Position: 2000	
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>				
(6)	etaCncB	RA: 08 32 31.8000 (128.1325000d) Dec: +20 27 0.72 (20.45020d) Equinox: J2000	Proper Motion RA: -46.57 mas/yr Proper Motion Dec: -44.3 mas/yr Parallax: 0.01026" Epoch of Position: 2000	
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>				

Fixed Targets

Proposal 8140 - Targets - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

(7)	HD3861B	RA: 00 41 10.6600 (10.2944167d) Dec: +09 21 19.44 (9.35540d) Equinox: J2000	Proper Motion RA: -122.73 mas/yr Proper Motion Dec: -103.078 mas/yr Parallax: 0.029901" Epoch of Position: 2000
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>			
(8)	HD97334B	RA: 11 12 25.6300 (168.1067917d) Dec: +35 48 12.60 (35.80350d) Equinox: J2000	Proper Motion RA: -236.9 mas/yr Proper Motion Dec: -149.8 mas/yr Parallax: 0.0422" Epoch of Position: 2000
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>			
(9)	BD+601417B	RA: 12 43 32.4000 (190.8850000d) Dec: +60 01 27.12 (60.02420d) Equinox: J2000	Proper Motion RA: -126.401 mas/yr Proper Motion Dec: -64.141 mas/yr Parallax: 0.022244" Epoch of Position: 2000
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>			
(10)	HD167359B	RA: 18 15 49.1500 (273.9547917d) Dec: -23 48 45.36 (-23.81260d) Equinox: J2000	Proper Motion RA: 64.735 mas/yr Proper Motion Dec: -166.247 mas/yr Parallax: 0.026538" Epoch of Position: 2000
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>			
(11)	HD203030B	RA: 21 18 58.9700 (319.7457083d) Dec: +26 13 46.20 (26.22950d) Equinox: J2000	Proper Motion RA: 133.81 mas/yr Proper Motion Dec: 9.245 mas/yr Parallax: 0.02546" Epoch of Position: 2000
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>			
(12)	Gl584C	RA: 15 23 22.6300 (230.8442917d) Dec: +30 14 56.04 (30.24890d) Equinox: J2000	Proper Motion RA: 117.1 mas/yr Proper Motion Dec: -171.7 mas/yr Parallax: 0.056" Epoch of Position: 2000
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>			

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(13)	HD118865B	RA: 13 39 44.0200 (204.9334167d) Dec: +01 04 36.84 (1.07690d) Equinox: J2000	Proper Motion RA: -95.558 mas/yr Proper Motion Dec: -48.191 mas/yr Parallax: 0.016504" Epoch of Position: 2000
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, Substellar companions, T dwarfs]</i> <i>Extended=NO</i></p>			
(14)	HD3651B	RA: 00 39 18.9100 (9.8287917d) Dec: +21 15 16.92 (21.25470d) Equinox: J2000	Proper Motion RA: -461.95 mas/yr Proper Motion Dec: -369.624 mas/yr Parallax: 0.09002" Epoch of Position: 2000
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, Substellar companions, T dwarfs]</i> <i>Extended=NO</i></p>			
(15)	HD131977D	RA: 14 57 15.1000 (224.3129167d) Dec: -21 21 50.40 (-21.36400d) Equinox: J2000	Proper Motion RA: 1031.47 mas/yr Proper Motion Dec: -1723.62 mas/yr Parallax: 0.16988" Epoch of Position: 2000
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, Substellar companions, T dwarfs]</i> <i>Extended=NO</i></p>			
(16)	WISE1118+3125	RA: 11 18 39.0000 (169.6625000d) Dec: +31 25 43.68 (31.42880d) Equinox: J2000	Proper Motion RA: -339.4 mas/yr Proper Motion Dec: -607.9 mas/yr Parallax: 0.1145" Epoch of Position: 2000
<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, Substellar companions, T dwarfs]</i> <i>Extended=NO</i></p>			

Proposal 8140 - Observation 1 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 1: HD253662B-NIRSPEC Diagnostic Status: Warning Observing Template: NIRSPEC Fixed Slit Spectroscopy										
	(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(1)	HD253662B	RA: 06 13 53.4200 (93.4725833d) Dec: +15 14 6.00 (15.23500d) Equinox: J2000			Proper Motion RA: 19.677 mas/yr Proper Motion Dec: -156.257 mas/yr Parallax: 0.011692" Epoch of Position: 2000					
<i>Comments:</i> Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions] Extended=NO											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	WATA	SUB32	CLEAR	NRSRAPIDD6	3	1	1	0.26	225530.1
Template	HFF Readout Mode				Slit			Subarray			
	false				S200A1			SUBS200A1			
Dithers	#	Primary Dither Positions						Sub-Pixel Pattern			
	1	2						NONE			
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	PRISM/CLEAR	S200A1	NRSRAPID	18	1	1	NONE	2	2	59.245

Proposal 8140 - Observation 2 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 2: HD221356D-NIRSPEC Diagnostic Status: Warning Observing Template: NIRSPEC Fixed Slit Spectroscopy											
Diagnostics	(Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.											
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous			
	(2)	HD221356D	RA: 23 31 30.9600 (352.8790000d) Dec: -04 05 24.00 (-4.09000d) Equinox: J2000			Proper Motion RA: 169.9 mas/yr Proper Motion Dec: -194.6 mas/yr Parallax: 0.0385" Epoch of Position: 2000						
	<i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i>											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	225530.3	
Template	HFF Readout Mode				Slit			Subarray				
	false				S200A1			SUBS200A1				
Dithers	#	Primary Dither Positions						Sub-Pixel Pattern				
	1	2						NONE				
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	PRISM/CLEAR	S200A1	NRSRAPID	4	1	1	NONE	2	2	15.621	225530.4

Proposal 8140 - Observation 3 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

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Observation	Proposal 8140, Observation 3: HIP59933B-NIRSPEC Diagnostic Status: Warning Observing Template: NIRSPEC Fixed Slit Spectroscopy										
	(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(3)	HIP59933B	RA: 12 17 36.4800 (184.4020000d) Dec: +14 27 12.24 (14.45340d) Equinox: J2000			Proper Motion RA: -103.15 mas/yr Proper Motion Dec: -37.55 mas/yr Parallax: 0.01545" Epoch of Position: 2000					
<i>Comments:</i> Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions] Extended=NO											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	WATA	SUB32	CLEAR	NRSRAPIDD6	3	1	1	0.26	225530.5
Template	HFF Readout Mode				Slit			Subarray			
	false				S200A1			SUBS200A1			
Dithers	#	Primary Dither Positions						Sub-Pixel Pattern			
	1	2						NONE			
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	PRISM/CLEAR	S200A1	NRSRAPID	20	1	1	NONE	2	2	65.477

Proposal 8140 - Observation 4 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

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Observation	<p>Proposal 8140, Observation 4: HIP11161B-NIRSPEC</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSPEC Fixed Slit Spectroscopy</p>											
Diagnostics	(Visit 4:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.											
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous			
	(4)	HIP11161B	RA: 02 23 36.7000 (35.9029167d) Dec: +52 40 6.60 (52.66850d) Equinox: J2000			Proper Motion RA: -81.121 mas/yr Proper Motion Dec: -61.06 mas/yr Parallax: 0.012649" Epoch of Position: 2000						
	<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	WATA	SUB32	CLEAR	NRSRAPIDD6	3	1	1	0.26	225530.7	
Template	HFF Readout Mode				Slit			Subarray				
	false				S200A1			SUBS200A1				
Dithers	#	Primary Dither Positions						Sub-Pixel Pattern				
	1	2						NONE				
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	PRISM/CLEAR	S200A1	NRSRAPID	25	1	1	NONE	2	2	81.057	225530.8

Proposal 8140 - Observation 5 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

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Observation	Proposal 8140, Observation 5: HD116012B-NIRSPEC Diagnostic Status: Warning Observing Template: NIRSPEC Fixed Slit Spectroscopy										
	(Visit 5:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(5)	HD116012B	RA: 13 20 44.2800 (200.1845000d) Dec: +04 09 4.68 (4.15130d) Equinox: J2000			Proper Motion RA: -505.5 mas/yr Proper Motion Dec: 205.7 mas/yr Parallax: 0.0324" Epoch of Position: 2000					
<i>Comments:</i> Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions] Extended=NO											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	225530.9
Template	HFF Readout Mode				Slit			Subarray			
	false				S200A1			SUBS200A1			
Dithers	#	Primary Dither Positions						Sub-Pixel Pattern			
	1	2						NONE			
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	PRISM/CLEAR	S200A1	NRSRAPID	6	1	1	NONE	2	2	21.853

Proposal 8140 - Observation 6 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 6: etaCncB Diagnostic Status: Warning Observing Template: NIRSpec Fixed Slit Spectroscopy											
Diagnostics	(Visit 6:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.											
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous			
	(6)	etaCncB	RA: 08 32 31.8000 (128.1325000d) Dec: +20 27 0.72 (20.45020d) Equinox: J2000			Proper Motion RA: -46.57 mas/yr Proper Motion Dec: -44.3 mas/yr Parallax: 0.01026" Epoch of Position: 2000						
	<i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i>											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	WATA	SUB32	CLEAR	NRSRAPIDD6	3	1	1	0.26	225530.11	
Template	HFF Readout Mode				Slit			Subarray				
	false				S200A1			SUBS200A1				
Dithers	#	Primary Dither Positions						Sub-Pixel Pattern				
	1	2						NONE				
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	PRISM/CLEAR	S200A1	NRSRAPID	45	1	1	NONE	2	2	143.377	225530.12

Proposal 8140 - Observation 7 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

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Observation	Proposal 8140, Observation 7: HD3861B-NIRSPEC Diagnostic Status: Warning Observing Template: NIRSpec Fixed Slit Spectroscopy											
Diagnostics	(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.											
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous			
	(7)	HD3861B	RA: 00 41 10.6600 (10.2944167d) Dec: +09 21 19.44 (9.35540d) Equinox: J2000			Proper Motion RA: -122.73 mas/yr Proper Motion Dec: -103.078 mas/yr Parallax: 0.029901" Epoch of Position: 2000						
	<i>Comments:</i> Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions] Extended=NO											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	225530.13	
Template	HFF Readout Mode				Slit			Subarray				
	false				S200A1			SUBS200A1				
Dithers	#	Primary Dither Positions						Sub-Pixel Pattern				
	1	2						NONE				
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	PRISM/CLEAR	S200A1	NRSRAPID	6	1	1	NONE	2	2	21.853	225530.14

Proposal 8140 - Observation 8 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 8: HD97334B-NIRSPEC Diagnostic Status: Warning Observing Template: NIRSPEC Fixed Slit Spectroscopy										
	(Visit 8:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(8)	HD97334B	RA: 11 12 25.6300 (168.1067917d) Dec: +35 48 12.60 (35.80350d) Equinox: J2000			Proper Motion RA: -236.9 mas/yr Proper Motion Dec: -149.8 mas/yr Parallax: 0.0422" Epoch of Position: 2000					
<i>Comments:</i> Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions] Extended=NO											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	225530.15
Template	HFF Readout Mode				Slit			Subarray			
	false				S200A1			SUBS200A1			
Dithers	#	Primary Dither Positions					Sub-Pixel Pattern				
	1	2					NONE				
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	PRISM/CLEAR	S200A1	NRSRAPID	3	1	1	NONE	2	2	12.505

Proposal 8140 - Observation 9 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 9: BD+601417B-NIRSPEC Diagnostic Status: Warning Observing Template: NIRSPEC Fixed Slit Spectroscopy										
	(Visit 9:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(9)	BD+601417B	RA: 12 43 32.4000 (190.8850000d) Dec: +60 01 27.12 (60.02420d) Equinox: J2000			Proper Motion RA: -126.401 mas/yr Proper Motion Dec: -64.141 mas/yr Parallax: 0.022244" Epoch of Position: 2000					
<i>Comments:</i> Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions] Extended=NO											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	WATA	SUB32	CLEAR	NRSRAPIDD6	3	1	1	0.26	225530.17
Template	HFF Readout Mode				Slit			Subarray			
	false				S200A1			SUBS200A1			
Dithers	#	Primary Dither Positions					Sub-Pixel Pattern				
	1	2					NONE				
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	PRISM/CLEAR	S200A1	NRSRAPID	50	1	1	NONE	2	2	158.957

Proposal 8140 - Observation 10 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	<p>Proposal 8140, Observation 10: HD167359B-NIRSPEC</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSPEC Fixed Slit Spectroscopy</p>											
Diagnostics	(Visit 10:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.											
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous			
	(10)	HD167359B	RA: 18 15 49.1500 (273.9547917d) Dec: -23 48 45.36 (-23.81260d) Equinox: J2000			Proper Motion RA: 64.735 mas/yr Proper Motion Dec: -166.247 mas/yr Parallax: 0.026538" Epoch of Position: 2000						
	<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	WATA	SUB32	CLEAR	NRSRAPIDD6	3	1	1	0.26	225530.19	
Template	HFF Readout Mode				Slit			Subarray				
	false				S200A1			SUBS200A1				
Dithers	#	Primary Dither Positions						Sub-Pixel Pattern				
	1	2						NONE				
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	PRISM/CLEAR	S200A1	NRSRAPID	12	1	1	NONE	2	2	40.549	225530.20

Proposal 8140 - Observation 11 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	<p>Proposal 8140, Observation 11: HD203030B-NIRSPEC</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSPEC Fixed Slit Spectroscopy</p>											
Diagnostics	(Visit 11:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.											
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous			
	(11)	HD203030B	RA: 21 18 58.9700 (319.7457083d) Dec: +26 13 46.20 (26.22950d) Equinox: J2000			Proper Motion RA: 133.81 mas/yr Proper Motion Dec: 9.245 mas/yr Parallax: 0.02546" Epoch of Position: 2000						
	<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i></p>											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	WATA	SUB32	CLEAR	NRSRAPIDD6	3	1	1	0.26	225530.21	
Template	HFF Readout Mode				Slit			Subarray				
	false				S200A1			SUBS200A1				
Dithers	#	Primary Dither Positions					Sub-Pixel Pattern					
	1	2					NONE					
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	PRISM/CLEAR	S200A1	NRSRAPID	40	1	1	NONE	2	2	127.797	225530.22

Proposal 8140 - Observation 12 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 12: G1584C-NIRSPEC Diagnostic Status: Warning Observing Template: NIRSPEC Fixed Slit Spectroscopy											
Diagnostics	(Visit 12:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.											
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous			
	(12)	G1584C	RA: 15 23 22.6300 (230.8442917d) Dec: +30 14 56.04 (30.24890d) Equinox: J2000			Proper Motion RA: 117.1 mas/yr Proper Motion Dec: -171.7 mas/yr Parallax: 0.056" Epoch of Position: 2000						
	<i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i>											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	225530.23	
Template	HFF Readout Mode				Slit			Subarray				
	false				S200A1			SUBS200A1				
Dithers	#	Primary Dither Positions					Sub-Pixel Pattern					
	1	2					NONE					
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	PRISM/CLEAR	S200A1	NRSRAPID	5	1	1	NONE	2	2	18.737	225530.24

Proposal 8140 - Observation 13 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 13: HD118865B-NIRSPEC Diagnostic Status: Warning Observing Template: NIRSPEC Fixed Slit Spectroscopy										
Diagnostics	(Visit 13:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(13)	HD118865B	RA: 13 39 44.0200 (204.9334167d) Dec: +01 04 36.84 (1.07690d) Equinox: J2000			Proper Motion RA: -95.558 mas/yr Proper Motion Dec: -48.191 mas/yr Parallax: 0.016504" Epoch of Position: 2000					
	<i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, Substellar companions, T dwarfs]</i> <i>Extended=NO</i>										
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	WATA	SUB2048	CLEAR	NRSRAPID	3	1	1	3.628	225530.25
Template	HFF Readout Mode				Slit			Subarray			
	false				S200A1			SUBS200A1			
Dithers	#	Primary Dither Positions					Sub-Pixel Pattern				
	1	2					NONE				
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	PRISM/CLEAR	S200A1	NRSRAPID	40	4 1	NONE	2	8	511.188	225530.26

Proposal 8140 - Observation 14 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	<p>Proposal 8140, Observation 14: HD3651B-NIRSPEC</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSPEC Fixed Slit Spectroscopy</p>											
Diagnostics	(Visit 14:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.											
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous			
	(14)	HD3651B	RA: 00 39 18.9100 (9.8287917d) Dec: +21 15 16.92 (21.25470d) Equinox: J2000			Proper Motion RA: -461.95 mas/yr Proper Motion Dec: -369.624 mas/yr Parallax: 0.09002" Epoch of Position: 2000						
	<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, Substellar companions, T dwarfs]</i> <i>Extended=NO</i></p>											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	WATA	SUB32	CLEAR	NRSRAPIDD6	3	1	1	0.26	225530.27	
Template	HFF Readout Mode				Slit			Subarray				
	false				S200A1			SUBS200A1				
Dithers	#	Primary Dither Positions						Sub-Pixel Pattern				
	1	2						NONE				
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	PRISM/CLEAR	S200A1	NRSRAPID	20	1	1	NONE	2	2	65.477	225530.28

Proposal 8140 - Observation 15 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 15: HD131977D-NIRSPEC Diagnostic Status: Warning Observing Template: NIRSPEC Fixed Slit Spectroscopy											
Diagnostics	(Visit 15:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.											
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous			
	(15)	HD131977D	RA: 14 57 15.1000 (224.3129167d) Dec: -21 21 50.40 (-21.36400d) Equinox: J2000			Proper Motion RA: 1031.47 mas/yr Proper Motion Dec: -1723.62 mas/yr Parallax: 0.16988" Epoch of Position: 2000						
	Comments: Category=Star Description=[Brown dwarfs, Substellar companions, T dwarfs] Extended=NO											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	225869.13	
Template	HFF Readout Mode				Slit		Subarray					
	false				S200A1		SUBS200A1					
Dithers	#	Primary Dither Positions					Sub-Pixel Pattern					
	1	2					NONE					
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	PRISM/CLEAR	S200A1	NRSRAPID	6	1	1	NONE	2	2	21.853	225869.14

Proposal 8140 - Observation 16 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	<p>Proposal 8140, Observation 16: WISE1118+3125</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSpec Fixed Slit Spectroscopy</p>											
Diagnostics	(Visit 16:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.											
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous			
	(16)	WISE1118+3125	RA: 11 18 39.0000 (169.6625000d) Dec: +31 25 43.68 (31.42880d) Equinox: J2000			Proper Motion RA: -339.4 mas/yr Proper Motion Dec: -607.9 mas/yr Parallax: 0.1145" Epoch of Position: 2000						
	<i>Comments:</i> Category=Star Description=[Brown dwarfs, Substellar companions, T dwarfs] Extended=NO											
Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	WATA	SUB2048	CLEAR	NRSRAPID	3	1	1	3.628	225530.29	
Template	HFF Readout Mode				Slit			Subarray				
	false				S200A1			SUBS200A1				
Dithers	#	Primary Dither Positions						Sub-Pixel Pattern				
	1	2						NONE				
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	PRISM/CLEAR	S200A1	NRSRAPID	40	3	1	NONE	2	6	383.391	225530.30

Proposal 8140 - Observation 17 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	<p>Proposal 8140, Observation 17: HD253662B-MIRI</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Low Resolution Spectroscopy</p>									
Diagnostics	(Visit 17:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous			
	(1)	HD253662B	RA: 06 13 53.4200 (93.4725833d) Dec: +15 14 6.00 (15.23500d) Equinox: J2000	Proper Motion RA: 19.677 mas/yr Proper Motion Dec: -156.257 mas/yr Parallax: 0.011692" Epoch of Position: 2000						
	<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>									
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	F560W	FAST	4	1	1	11.1	225530.31	
Template	Subarray				Obtain Verification Image?					
	FULL				false					
Dithers	#	Dither Type		No. Spectral Steps	Spectral Step Offset		No. Spatial Steps		Spatial Step Offset	
	1	ALONG SLIT NOD								
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID	
	1	FASTR1	100	1	2	1	2	555.008	225530.32	

Proposal 8140 - Observation 18 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	<p>Proposal 8140, Observation 18: HD221356D-MIRI</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Low Resolution Spectroscopy</p>								
Diagnostics	(Visit 18:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.								
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous		
	(2)	HD221356D	RA: 23 31 30.9600 (352.8790000d) Dec: -04 05 24.00 (-4.090000d) Equinox: J2000	Proper Motion RA: 169.9 mas/yr Proper Motion Dec: -194.6 mas/yr Parallax: 0.0385" Epoch of Position: 2000					
	<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, L dwarfs, Substellar companions]</i> <i>Extended=NO</i></p>								
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	F560W	FAST	4	1	1	11.1	225530.33
Template	Subarray				Obtain Verification Image?				
	FULL				false				
Dithers	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset			
	1	ALONG SLIT NOD							
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	15	1	2	1	2	83.251	225530.34

Proposal 8140 - Observation 19 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 19: HIP59933B-MIRI Diagnostic Status: Warning Observing Template: MIRI Low Resolution Spectroscopy								
Diagnostics	(Visit 19:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.								
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous		
	(3)	HIP59933B	RA: 12 17 36.4800 (184.4020000d) Dec: +14 27 12.24 (14.45340d) Equinox: J2000	Proper Motion RA: -103.15 mas/yr Proper Motion Dec: -37.55 mas/yr Parallax: 0.01545" Epoch of Position: 2000					
	Comments: Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions] Extended=NO								
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	F560W	FAST	4	1	1	11.1	225530.35
Template	Subarray				Obtain Verification Image?				
	FULL				false				
Dithers	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset			
	1	ALONG SLIT NOD							
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	100	1	2	1	2	555.008	225530.36

Proposal 8140 - Observation 20 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 20: HIP11161B-MIRI Diagnostic Status: Warning Observing Template: MIRI Low Resolution Spectroscopy								
Diagnostics	(Visit 20:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.								
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous		
	(4)	HIP11161B	RA: 02 23 36.7000 (35.9029167d) Dec: +52 40 6.60 (52.66850d) Equinox: J2000	Proper Motion RA: -81.121 mas/yr Proper Motion Dec: -61.06 mas/yr Parallax: 0.012649" Epoch of Position: 2000					
	Comments: Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions] Extended=NO								
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	F560W	FAST	4	1	1	11.1	225530.37
Template	Subarray				Obtain Verification Image?				
	FULL				false				
Dithers	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset			
	1	ALONG SLIT NOD							
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	130	1	2	1	2	721.51	225530.38

Proposal 8140 - Observation 21 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 21: HD116012B-MIRI Diagnostic Status: Warning Observing Template: MIRI Low Resolution Spectroscopy								
Diagnostics	(Visit 21:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.								
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous		
	(5)	HD116012B	RA: 13 20 44.2800 (200.1845000d) Dec: +04 09 4.68 (4.15130d) Equinox: J2000	Proper Motion RA: -505.5 mas/yr Proper Motion Dec: 205.7 mas/yr Parallax: 0.0324" Epoch of Position: 2000					
	Comments: Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions] Extended=NO								
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	F560W	FAST	4	1	1	11.1	225530.39
Template	Subarray				Obtain Verification Image?				
	FULL				false				
Dithers	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset			
	1	ALONG SLIT NOD							
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	20	1	2	1	2	111.002	225530.40

Proposal 8140 - Observation 22 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 22: etaCncB-MIRI Diagnostic Status: Warning Observing Template: MIRI Low Resolution Spectroscopy								
Diagnostics	(Visit 22:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.								
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous		
	(6)	etaCncB	RA: 08 32 31.8000 (128.1325000d) Dec: +20 27 0.72 (20.45020d) Equinox: J2000	Proper Motion RA: -46.57 mas/yr Proper Motion Dec: -44.3 mas/yr Parallax: 0.01026" Epoch of Position: 2000					
	Comments: Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions] Extended=NO								
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	F560W	FAST	8	1	1	22.2	225530.41
Template	Subarray				Obtain Verification Image?				
	FULL				false				
Dithers	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset			
	1	ALONG SLIT NOD							
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	250	2	4	1	2	2780.59	225530.42

Proposal 8140 - Observation 23 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 23: HD3861B-MIRI Diagnostic Status: Warning Observing Template: MIRI Low Resolution Spectroscopy								
	(Visit 23:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.								
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous		
	(7)	HD3861B	RA: 00 41 10.6600 (10.2944167d) Dec: +09 21 19.44 (9.35540d) Equinox: J2000	Proper Motion RA: -122.73 mas/yr Proper Motion Dec: -103.078 mas/yr Parallax: 0.029901" Epoch of Position: 2000					
Comments: Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions] Extended=NO									
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	F560W	FAST	4	1	1	11.1	225530.43
Template	Subarray				Obtain Verification Image?				
	FULL				false				
Dithers	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset			
	1	ALONG SLIT NOD							
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	20	1	2	1	2	111.002	225530.44

Proposal 8140 - Observation 24 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 24: HD97334B-MIRI Diagnostic Status: Warning Observing Template: MIRI Low Resolution Spectroscopy								
Diagnostics	(Visit 24:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.								
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous		
	(8)	HD97334B	RA: 11 12 25.6300 (168.1067917d) Dec: +35 48 12.60 (35.80350d) Equinox: J2000	Proper Motion RA: -236.9 mas/yr Proper Motion Dec: -149.8 mas/yr Parallax: 0.0422" Epoch of Position: 2000					
	Comments: Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions] Extended=NO								
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	F560W	FAST	4	1	1	11.1	225530.45
Template	Subarray				Obtain Verification Image?				
	FULL				false				
Dithers	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset			
	1	ALONG SLIT NOD							
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	10	1	2	1	2	55.501	225530.46

Proposal 8140 - Observation 25 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 25: BD+601417B-MIRI Diagnostic Status: Warning Observing Template: MIRI Low Resolution Spectroscopy									
Diagnostics	(Visit 25:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous			
	(9)	BD+601417B	RA: 12 43 32.4000 (190.8850000d) Dec: +60 01 27.12 (60.02420d) Equinox: J2000	Proper Motion RA: -126.401 mas/yr Proper Motion Dec: -64.141 mas/yr Parallax: 0.022244" Epoch of Position: 2000						
	Comments: Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions] Extended=NO									
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	F560W	FAST	8	1	1	22.2	225530.47	
Template	Subarray				Obtain Verification Image?					
	FULL				false					
Dithers	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset				
	1	ALONG SLIT NOD								
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID	
	1	FASTR1	150	1	2	1	2	832.512	225530.48	

Proposal 8140 - Observation 26 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 26: HD167359B-MIRI Diagnostic Status: Warning Observing Template: MIRI Low Resolution Spectroscopy									
	(Visit 26:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous			
	(10)	HD167359B	RA: 18 15 49.1500 (273.9547917d) Dec: -23 48 45.36 (-23.81260d) Equinox: J2000	Proper Motion RA: 64.735 mas/yr Proper Motion Dec: -166.247 mas/yr Parallax: 0.026538" Epoch of Position: 2000						
Comments: Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions] Extended=NO										
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	F560W	FAST	4	1	1	11.1	225530.49	
Template	Subarray				Obtain Verification Image?					
	FULL				false					
Dithers	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset				
	1	ALONG SLIT NOD								
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID	
	1	FASTR1	40	1	2	1	2	222.003	225530.50	

Proposal 8140 - Observation 27 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 27: HD203030B-MIRI Diagnostic Status: Warning Observing Template: MIRI Low Resolution Spectroscopy								
Diagnostics	(Visit 27:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.								
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous		
	(11)	HD203030B	RA: 21 18 58.9700 (319.7457083d) Dec: +26 13 46.20 (26.22950d) Equinox: J2000	Proper Motion RA: 133.81 mas/yr Proper Motion Dec: 9.245 mas/yr Parallax: 0.02546" Epoch of Position: 2000					
	<i>Comments:</i> Category=Star Description=[Brown dwarfs, L dwarfs, Substellar companions]								
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	F560W	FAST	8	1	1	22.2	225869.1
Template	Subarray				Obtain Verification Image?				
	FULL				false				
Dithers	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset			
	1	ALONG SLIT NOD							
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	150	1	2	1	2	832.512	225869.2

Proposal 8140 - Observation 29 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	<p>Proposal 8140, Observation 29: HD118865B-MIRI</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Low Resolution Spectroscopy</p>									
Diagnostics	(Visit 29:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous			
	(13)	HD118865B	RA: 13 39 44.0200 (204.9334167d) Dec: +01 04 36.84 (1.07690d) Equinox: J2000	Proper Motion RA: -95.558 mas/yr Proper Motion Dec: -48.191 mas/yr Parallax: 0.016504" Epoch of Position: 2000						
	<p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Brown dwarfs, Substellar companions, T dwarfs]</i> <i>Extended=NO</i></p>									
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	F1000W	FAST	10	1	1	27.75	225869.5	
Template	Subarray				Obtain Verification Image?					
	FULL				false					
Dithers	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset				
	1	ALONG SLIT NOD								
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID	
	1	FASTR1	200	2	4	1	2	2225.582	225869.6	

Proposal 8140 - Observation 30 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 30: HD3651B-MIRI Diagnostic Status: Warning Observing Template: MIRI Low Resolution Spectroscopy								
Diagnostics	(Visit 30:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.								
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous		
	(14)	HD3651B	RA: 00 39 18.9100 (9.8287917d) Dec: +21 15 16.92 (21.25470d) Equinox: J2000	Proper Motion RA: -461.95 mas/yr Proper Motion Dec: -369.624 mas/yr Parallax: 0.09002" Epoch of Position: 2000					
	<i>Comments:</i> Category=Star Description=[Brown dwarfs, Substellar companions, T dwarfs] Extended=NO								
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	F1000W	FAST	4	1	1	11.1	225869.7
Template	Subarray				Obtain Verification Image?				
	FULL				false				
Dithers	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset			
	1	ALONG SLIT NOD							
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	40	1	2	1	2	222.003	225869.8

Proposal 8140 - Observation 31 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 31: HD131977D-MIRI Diagnostic Status: Warning Observing Template: MIRI Low Resolution Spectroscopy									
Diagnostics	(Visit 31:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous			
	(15)	HD131977D	RA: 14 57 15.1000 (224.3129167d) Dec: -21 21 50.40 (-21.36400d) Equinox: J2000	Proper Motion RA: 1031.47 mas/yr Proper Motion Dec: -1723.62 mas/yr Parallax: 0.16988" Epoch of Position: 2000						
	<i>Comments:</i> Category=Star Description=[Brown dwarfs, Substellar companions, T dwarfs] Extended=NO									
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	F1000W	FAST	4	1	1	11.1	225869.11	
Template	Subarray				Obtain Verification Image?					
	FULL				false					
Dithers	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset				
	1	ALONG SLIT NOD								
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID	
	1	FASTR1	20	1	2	1	2	111.002	225869.12	

Proposal 8140 - Observation 32 - Empirically anchoring the physics of silicate clouds using L0- T9 benchmark brown dwarfs

Wed Jul 09 10:00:15 GMT 2025

Observation	Proposal 8140, Observation 32: WISE1118+3125-MIRI Diagnostic Status: Warning Observing Template: MIRI Low Resolution Spectroscopy									
Diagnostics	(Visit 32:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous			
	(16)	WISE1118+3125	RA: 11 18 39.0000 (169.6625000d) Dec: +31 25 43.68 (31.42880d) Equinox: J2000	Proper Motion RA: -339.4 mas/yr Proper Motion Dec: -607.9 mas/yr Parallax: 0.1145" Epoch of Position: 2000						
	<i>Comments:</i> Category=Star Description=[Brown dwarfs, Substellar companions, T dwarfs] Extended=NO									
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	F1000W	FAST	4	1	1	11.1	225869.9	
Template	Subarray				Obtain Verification Image?					
	FULL				false					
Dithers	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset				
	1	ALONG SLIT NOD								
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID	
	1	FASTR1	200	1	2	1	2	1110.016	225869.10	