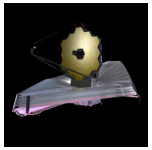

7306 - The Formation of Crystalline Silicate Dust -- Testbed Observations of post-AGB Stars with JWST

Cycle: 4, Proposal Category: GO

INVESTIGATORS

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Observation Folder				
	10		MIRI Medium Resolution Spectroscopy	(10) IRAS10197-5750-SKY
	3		MIRI Medium Resolution Spectroscopy	(3) IRAS10197-5750
	1		MIRI Medium Resolution Spectroscopy	(1) IRAS14562-5406
	11		MIRI Medium Resolution Spectroscopy	(11) IRAS14562-5406-SKY
	4		MIRI Medium Resolution Spectroscopy	(4) IRAS16279-4757
	12		MIRI Medium Resolution Spectroscopy	(12) IRAS16279-4757-SKY
	5		MIRI Medium Resolution Spectroscopy	(5) IRAS16342-3814
	13		MIRI Medium Resolution Spectroscopy	(13) IRAS16342-3814-SKY

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
	7		MIRI Medium Resolution Spectroscopy	(7) IRAS17047-5650
	14		MIRI Medium Resolution Spectroscopy	(14) IRAS17047-5650-SKY
	17		MIRI Medium Resolution Spectroscopy	(17) HD-161796-SKY
	16		MIRI Medium Resolution Spectroscopy	(16) HD-161796

ABSTRACT

Silicate dust is a very important ingredient of the cosmic life cycle of matter. It has been identified in very diverse environments, ranging from objects in the Solar System to luminous quasars. It is a key constituent of the dust in the interstellar medium of most galaxies, and generally dominates their spectral energy distributions (SEDs). Cosmic silicates have generally been found in an amorphous state through broad and structureless bands at 10 and 18 micron, and their origin is well understood. They are believed to be generated in the winds of ~1-8 Msun (and more masive) stars and then ejected into the ambient interstellar medium. In addition, a small but significant fraction (~10% by mass) of cosmic silicates are found to be crystalline, detected through a forest of distinct solid-state features. However, despite their ubiquitous presence in and profound influence on the spectra of an extensive and diverse astrophysical population, how crystalline silicate grains form remains one of the most elusive puzzles in our understanding of dust in the Universe. We therefore propose JWST/MRS observations of a sample of pre-planetary nebulae and young planetary nebulae to resolve this puzzle, as these represent the best laboratories for studying the genesis of crystalline silicate because of their (a) well-defined spatially-resolved density structures and (b) their well-defined radiation environments. Both of these factors are believed to play important roles in the the formation and evolution of crystalline silicates, and our proposed survey will allow us to assess the role of each independently.

OBSERVING DESCRIPTION

Our primary goal is to map the emission from crystalline silicate bands as a function of density and radiation in 6 PPNe and young PNe. We will use the MIRI/MRS to obtain spectra of our objects in the 5-28 micron region, using all three grating positions for MRS spectroscopy and the FAST readout pattern throughout. The region of 5-28 micron is especially crucial to understanding the chemistry and spectral characteristics of our sources as it is the region covering the crystalline silicate bands and the 10 and 18 micron amorphous silicate bands, the region of prominent PAH emission, and numerous H recombination and molecular H2 rotational lines. We used WISE magnitudes (3.6-22 micron) and ISO/SWS spectra and mid-IR imaging of our targets to estimate the signal-to-noise ratio (SNR) and the feasibility of the observations. We used the mid-IR images to estimate the intensity in the bright regions (which is generally the waist/torus) as a fraction of the total flux (derived from the spectra) for estimating the required exposure times using the ETC. The exposure times (number of groups and number of dithers) were decided based on the considerations that we achieve a SNR>~150 in the 18-25 micron region, where some of the most important crystalline silicate features are located, as this will allow us to

detect the emission in the region fainter by at least a factor 5 (since we can use spatial averaging for the fainter regions that are much more sptially extended than the bright waist).

We note that there is a very steep rise of the flux with wavelength from ~5 to ~25 micrin in the SEDs of all our sources, hence in order to avoid saturation at the long wavelength end (~24 micron), we have used appropriately smaller values for Groups/Int. For example, for our brightest source, HD 161796, we had to set this to the lowest value, 2.

We will use a 4-point dither pattern because it will produce the best possible spectral resolution, and also better sample the point-spread function and enable improved spectral extraction. We will use a 2 x 2 mosaic for each target to ensure that the full nebula is adequately imaged (especially important for the even the shortest wavelength, where the field-of-view is smaller). We also include observations of the background sky at a nearby location offset from each source by about 3 arcmin.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	IRAS14562-5406	RA: 14 59 53.4819 (224.9728412d) Dec: -54 18 7.52 (-54.30209d) Equinox: J2000	Proper Motion RA: -4.855 mas/yr Proper Motion Dec: -0.2019999783442472 mas/yr Epoch of Position: 2000	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Circumstellar clouds, Circumstellar disks, Circumstellar dust, Circumstellar gas]*				
(3)	IRAS10197-5750	RA: 10 21 33.8592 (155.3910800d) Dec: -58 05 47.66 (-58.09657d) Equinox: J2000	Proper Motion RA: -11.4 mas/yr Proper Motion Dec: -6.200000052558607 mas/yr Epoch of Position: 2000	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]*				
(4)	IRAS16279-4757	RA: 16 31 38.7381 (247.9114087d) Dec: -48 04 5.64 (-48.06823d) Equinox: J2000	Proper Motion RA: -4.591 mas/yr Proper Motion Dec: -4.968000052940624 mas/yr Epoch of Position: 2000	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]*				
(5)	IRAS16342-3814	RA: 16 37 39.8692 (249.4161217d) Dec: -38 20 17.44 (-38.33818d) Equinox: J2000	Epoch of Position: 2000	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]* *Extended=YES*				
(7)	IRAS17047-5650	RA: 17 09 0.9292 (257.2538717d) Dec: -56 54 47.87 (-56.91330d) Equinox: J2000	Proper Motion RA: -2.209 mas/yr Proper Motion Dec: -5.636000082631654 mas/yr Epoch of Position: 2000	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]*				
(10)	IRAS10197-5750-SKY	RA: 10 21 33.8592 (155.3910800d) Dec: -58 02 47.66 (-58.04657d) Equinox: J2000	Proper Motion RA: -11.4 mas/yr Proper Motion Dec: -6.200000052558607 mas/yr Epoch of Position: 2000	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]*				
(11)	IRAS14562-5406-SKY	RA: 14 59 53.4819 (224.9728412d) Dec: -54 15 7.52 (-54.25209d) Equinox: J2000	Proper Motion RA: -4.855 mas/yr Proper Motion Dec: -0.2019999783442472 mas/yr Epoch of Position: 2000	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Circumstellar clouds, Circumstellar disks, Circumstellar dust, Circumstellar gas]*				
(12)	IRAS16279-4757-SKY	RA: 16 31 38.7381 (247.9114087d) Dec: -48 01 5.64 (-48.01823d) Equinox: J2000	Proper Motion RA: -4.591 mas/yr Proper Motion Dec: -4.968000052940624 mas/yr Epoch of Position: 2000	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]*				

(13)	IRAS16342-3814-SKY	RA: 16 37 51.4700 (249.4644583d)	Epoch of Position: 2000
		Dec: -38 17 27.00 (-38.29083d)	
		Equinox: J2000	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]*			
(14)	IRAS17047-5650-SKY	RA: 17 09 0.9292 (257.2538717d)	Proper Motion RA: -2.209 mas/yr
		Dec: -56 51 47.87 (-56.86330d)	Proper Motion Dec: -5.636000082631654 mas/yr
		Equinox: J2000	Epoch of Position: 2000
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]*			
(16)	HD-161796	RA: 17 44 55.4695 (266.2311229d)	Proper Motion RA: -1.662 mas/yr
		Dec: +50 02 39.48 (50.04430d)	Proper Motion Dec: -11.853999944833049 mas/yr
		Equinox: J2000	Epoch of Position: 2000
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Circumstellar disks, Circumstellar dust, Circumstellar matter]*			
(17)	HD-161796-SKY	RA: 17 44 55.4695 (266.2311229d)	Proper Motion RA: -1.662 mas/yr
		Dec: +50 05 39.48 (50.09430d)	Proper Motion Dec: -11.853999944833049 mas/yr
		Equinox: J2000	Epoch of Position: 2000
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Circumstellar disks, Circumstellar dust, Circumstellar matter]*			

Observation

Proposal 7306, Observation 10

Tue Mar 31 21:00:22 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observation For: [Observation 3]

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)	IRAS10197-5750-SKY	RA: 10 21 33.8592 (155.3910800d)	Proper Motion RA: -11.4 mas/yr	
		Dec: -58 02 47.66 (-58.04657d)	Proper Motion Dec: -6.200000052558607 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F560W	All MRS	NO	FULL	Allow Auto Reorder

Dithers

#	Dither Type	Optimized For	Direction
1	2-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	5	5	1	Dither 1	2	10	160.952	173393
1	SHORT(A)	MRSSHORT		FASTR1	10	3	1	Dither 1	2	6	177.603	173393
2	MEDIUM(B)	MRSLONG		FASTR1	5	5	1	Dither 1	2	10	160.952	173393
2	MEDIUM(B)	MRSSHORT		FASTR1	10	3	1	Dither 1	2	6	177.603	173393
3	LONG(C)	MRSLONG		FASTR1	5	5	1	Dither 1	2	10	160.952	173393
3	LONG(C)	MRSSHORT		FASTR1	10	3	1	Dither 1	2	6	177.603	173393

Special Requirements	Sequence Observations 10, 3 (reordered), Non-interruptible

Observation

Proposal 7306, Observation 3 Tue Mar 31 21:00:22 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[Observation 10]

Diagnostics

(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)	IRAS10197-5750	RA: 10 21 33.8592 (155.3910800d)	Proper Motion RA: -11.4 mas/yr	
		Dec: -58 05 47.66 (-58.09657d)	Proper Motion Dec: -6.200000052558607 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F560W	All MRS	NO	FULL	Allow Auto Reorder

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	5	5	1	Dither 1	4	20	321.905	173393
1	SHORT(A)	MRSSHORT		FASTR1	10	3	1	Dither 1	4	12	355.205	173393
2	MEDIUM(B)	MRSLONG		FASTR1	5	5	1	Dither 1	4	20	321.905	173393
2	MEDIUM(B)	MRSSHORT		FASTR1	10	3	1	Dither 1	4	12	355.205	173393
3	LONG(C)	MRSLONG		FASTR1	5	5	1	Dither 1	4	20	321.905	173393
3	LONG(C)	MRSSHORT		FASTR1	10	3	1	Dither 1	4	12	355.205	173393

Special Requirements	Sequence Observations 10, 3 (reordered), Non-interruptible

Observation

Proposal 7306, Observation 1

Tue Mar 31 21:00:22 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[Observation 11]

Diagnostics

(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)	IRAS14562-5406	RA: 14 59 53.4819 (224.9728412d)	Proper Motion RA: -4.855 mas/yr	
		Dec: -54 18 7.52 (-54.30209d)	Proper Motion Dec: -0.2019999783442472 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Circumstellar clouds, Circumstellar disks, Circumstellar dust, Circumstellar gas]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F560W	All MRS	NO	FULL	Allow Auto Reorder

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	15	2	1	Dither 1	4	8	344.105	177781
1	SHORT(A)	MRSSHORT		FASTR1	30	1	1	Dither 1	4	4	333.005	177781
2	MEDIUM(B)	MRSLONG		FASTR1	15	2	1	Dither 1	4	8	344.105	177781
2	MEDIUM(B)	MRSSHORT		FASTR1	30	1	1	Dither 1	4	4	333.005	177781
3	LONG(C)	MRSLONG		FASTR1	15	2	1	Dither 1	4	8	344.105	177781
3	LONG(C)	MRSSHORT		FASTR1	30	1	1	Dither 1	4	4	333.005	177781

Special Requirements	Sequence Observations 11, 1 (reordered), Non-interruptible

Observation

Proposal 7306, Observation 11 Tue Mar 31 21:00:22 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observation For: [Observation 1]

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)	IRAS14562-5406-SKY	RA: 14 59 53.4819 (224.9728412d)	Proper Motion RA: -4.855 mas/yr	
		Dec: -54 15 7.52 (-54.25209d)	Proper Motion Dec: -0.2019999783442472 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Circumstellar clouds, Circumstellar disks, Circumstellar dust, Circumstellar gas]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F560W	All MRS	NO	FULL	Allow Auto Reorder

Dithers

#	Dither Type	Optimized For	Direction
1	2-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	15	2	1	Dither 1	2	4	172.052	177781
1	SHORT(A)	MRSSHORT		FASTR1	30	1	1	Dither 1	2	2	166.502	177781
2	MEDIUM(B)	MRSLONG		FASTR1	15	2	1	Dither 1	2	4	172.052	177781
2	MEDIUM(B)	MRSSHORT		FASTR1	30	1	1	Dither 1	2	2	166.502	177781
3	LONG(C)	MRSLONG		FASTR1	15	2	1	Dither 1	2	4	172.052	177781
3	LONG(C)	MRSSHORT		FASTR1	30	1	1	Dither 1	2	2	166.502	177781

Special Requirements	Sequence Observations 11, 1 (reordered), Non-interruptible

Observation

Proposal 7306, Observation 4

Tue Mar 31 21:00:22 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[Observation 12]

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)	IRAS16279-4757	RA: 16 31 38.7381 (247.9114087d)	Proper Motion RA: -4.591 mas/yr	
		Dec: -48 04 5.64 (-48.06823d)	Proper Motion Dec: -4.968000052940624 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F560W	All MRS	NO	FULL	Allow Auto Reorder

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	30	1	1	Dither 1	4	4	333.005	178221
1	SHORT(A)	MRSSHORT		FASTR1	30	1	1	Dither 1	4	4	333.005	178221
2	MEDIUM(B)	MRSLONG		FASTR1	30	1	1	Dither 1	4	4	333.005	178221
2	MEDIUM(B)	MRSSHORT		FASTR1	30	1	1	Dither 1	4	4	333.005	178221
3	LONG(C)	MRSLONG		FASTR1	30	1	1	Dither 1	4	4	333.005	178221
3	LONG(C)	MRSSHORT		FASTR1	30	1	1	Dither 1	4	4	333.005	178221

Special Requirements	Sequence Observations 12, 4 (reordered), Non-interruptible

Observation

Proposal 7306, Observation 12 Tue Mar 31 21:00:22 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observation For: [Observation 4]

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)	IRAS16279-4757-SKY	RA: 16 31 38.7381 (247.9114087d)	Proper Motion RA: -4.591 mas/yr	
		Dec: -48 01 5.64 (-48.01823d)	Proper Motion Dec: -4.968000052940624 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F560W	All MRS	NO	FULL	Allow Auto Reorder

Dithers

#	Dither Type	Optimized For	Direction
1	2-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	30	1	1	Dither 1	2	2	166.502	178221
1	SHORT(A)	MRSSHORT		FASTR1	30	1	1	Dither 1	2	2	166.502	178221
2	MEDIUM(B)	MRSLONG		FASTR1	30	1	1	Dither 1	2	2	166.502	178221
2	MEDIUM(B)	MRSSHORT		FASTR1	30	1	1	Dither 1	2	2	166.502	178221
3	LONG(C)	MRSLONG		FASTR1	30	1	1	Dither 1	2	2	166.502	178221
3	LONG(C)	MRSSHORT		FASTR1	30	1	1	Dither 1	2	2	166.502	178221

Special Requirements	Sequence Observations 12, 4 (reordered), Non-interruptible

Observation

Proposal 7306, Observation 5 Tue Mar 31 21:00:22 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[Observation 13]

Diagnostics

(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)	IRAS16342-3814	RA: 16 37 39.8692 (249.4161217d) Dec: -38 20 17.44 (-38.33818d) Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F560W	All MRS	NO	FULL	Allow Auto Reorder

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	15	4	1	Dither 1	4	16	699.31	178234
1	SHORT(A)	MRSSHORT		FASTR1	60	1	1	Dither 1	4	4	666.01	178234
2	MEDIUM(B)	MRSLONG		FASTR1	15	4	1	Dither 1	4	16	699.31	178234
2	MEDIUM(B)	MRSSHORT		FASTR1	60	1	1	Dither 1	4	4	666.01	178234
3	LONG(C)	MRSLONG		FASTR1	15	4	1	Dither 1	4	16	699.31	178234
3	LONG(C)	MRSSHORT		FASTR1	60	1	1	Dither 1	4	4	666.01	178234

Special Requirements	Sequence Observations 5, 13, Non-interruptible

Observation

Proposal 7306, Observation 13 Tue Mar 31 21:00:22 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observation For: [Observation 5]

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)	IRAS16342-3814-SKY	RA: 16 37 51.4700 (249.4644583d) Dec: -38 17 27.00 (-38.29083d) Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F560W	All MRS	NO	FULL	Allow Auto Reorder

Dithers

#	Dither Type	Optimized For	Direction
1	2-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	15	4	1	Dither 1	2	8	349.655	178234
1	SHORT(A)	MRSSHORT		FASTR1	60	1	1	Dither 1	2	2	333.005	178234
2	MEDIUM(B)	MRSLONG		FASTR1	15	4	1	Dither 1	2	8	349.655	178234
2	MEDIUM(B)	MRSSHORT		FASTR1	60	1	1	Dither 1	2	2	333.005	178234
3	LONG(C)	MRSLONG		FASTR1	15	4	1	Dither 1	2	8	349.655	178234
3	LONG(C)	MRSSHORT		FASTR1	60	1	1	Dither 1	2	2	333.005	178234

Special Requirements	Sequence Observations 5, 13, Non-interruptible

Observation

Proposal 7306, Observation 7

Tue Mar 31 21:00:22 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[Observation 14]

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)	IRAS17047-5650	RA: 17 09 0.9292 (257.2538717d)	Proper Motion RA: -2.209 mas/yr	
		Dec: -56 54 47.87 (-56.91330d)	Proper Motion Dec: -5.636000082631654 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F560W	All MRS	NO	FULL	Allow Auto Reorder

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	12	2	1	Dither 1	4	8	277.504	178246
1	SHORT(A)	MRSSHORT		FASTR1	25	1	1	Dither 1	4	4	277.504	178246
2	MEDIUM(B)	MRSLONG		FASTR1	12	2	1	Dither 1	4	8	277.504	178246
2	MEDIUM(B)	MRSSHORT		FASTR1	25	1	1	Dither 1	4	4	277.504	178246
3	LONG(C)	MRSLONG		FASTR1	12	2	1	Dither 1	4	8	277.504	178246
3	LONG(C)	MRSSHORT		FASTR1	25	1	1	Dither 1	4	4	277.504	178246

Special Requirements	Sequence Observations 14, 7 (reordered), Non-interruptible

Observation

Proposal 7306, Observation 14 Tue Mar 31 21:00:22 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observation For: [Observation 7]

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)	IRAS17047-5650-SKY	RA: 17 09 0.9292 (257.2538717d)	Proper Motion RA: -2.209 mas/yr	
		Dec: -56 51 47.87 (-56.86330d)	Proper Motion Dec: -5.636000082631654 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Circumstellar disks, Circumstellar dust, Circumstellar gas, Circumstellar matter]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F560W	All MRS	NO	FULL	Allow Auto Reorder

Dithers

#	Dither Type	Optimized For	Direction
1	2-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	12	2	1	Dither 1	2	4	138.752	178246
1	SHORT(A)	MRSSHORT		FASTR1	25	1	1	Dither 1	2	2	138.752	178246
2	MEDIUM(B)	MRSLONG		FASTR1	12	2	1	Dither 1	2	4	138.752	178246
2	MEDIUM(B)	MRSSHORT		FASTR1	25	1	1	Dither 1	2	2	138.752	178246
3	LONG(C)	MRSLONG		FASTR1	12	2	1	Dither 1	2	4	138.752	178246
3	LONG(C)	MRSSHORT		FASTR1	25	1	1	Dither 1	2	2	138.752	178246

Special Requirements	Sequence Observations 14, 7 (reordered), Non-interruptible

Observation

Proposal 7306, Observation 17 Tue Mar 31 21:00:22 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observation For: [Observation 16]

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
(17)	HD-161796-SKY	RA: 17 44 55.4695 (266.2311229d)	Proper Motion RA: -1.662 mas/yr	
		Dec: +50 05 39.48 (50.09430d)	Proper Motion Dec: -11.853999944833049 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Circumstellar disks, Circumstellar dust, Circumstellar matter]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F560W	All MRS	NO	FULL	Allow Auto Reorder

Dithers

#	Dither Type	Optimized For	Direction
1	2-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	5	7	1	Dither 1	2	14	227.553	178267
1	SHORT(A)	MRSSHORT		FASTR1	10	4	1	Dither 1	2	8	238.653	178267
2	MEDIUM(B)	MRSLONG		FASTR1	5	7	1	Dither 1	2	14	227.553	178267
2	MEDIUM(B)	MRSSHORT		FASTR1	10	4	1	Dither 1	2	8	238.653	178267
3	LONG(C)	MRSLONG		FASTR1	5	7	1	Dither 1	2	14	227.553	178267
3	LONG(C)	MRSSHORT		FASTR1	10	4	1	Dither 1	2	8	238.653	178267

Special Requirements	Sequence Observations 17, 16 (reordered), Non-interruptible

Observation

Proposal 7306, Observation 16 Tue Mar 31 21:00:22 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[Observation 17]

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)	HD-161796	RA: 17 44 55.4695 (266.2311229d)	Proper Motion RA: -1.662 mas/yr	
		Dec: +50 02 39.48 (50.04430d)	Proper Motion Dec: -11.853999944833049 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Circumstellar disks, Circumstellar dust, Circumstellar matter]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F560W	All MRS	NO	FULL	Allow Auto Reorder

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	5	7	1	Dither 1	4	28	455.107	178267
1	SHORT(A)	MRSSHORT		FASTR1	10	4	1	Dither 1	4	16	477.307	178267
2	MEDIUM(B)	MRSLONG		FASTR1	5	7	1	Dither 1	4	28	455.107	178267
2	MEDIUM(B)	MRSSHORT		FASTR1	10	4	1	Dither 1	4	16	477.307	178267
3	LONG(C)	MRSLONG		FASTR1	5	7	1	Dither 1	4	28	455.107	178267
3	LONG(C)	MRSSHORT		FASTR1	10	4	1	Dither 1	4	16	477.307	178267

Special Requirements	Sequence Observations 17, 16 (reordered), Non-interruptible