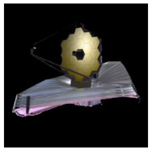

7874 - Dust After Quenching: A Mid-Infrared View into the Hidden ISM of Distant Massive Galaxies

Cycle: 4, Proposal Category: GO

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
NIRSpec IFU				
	1		NIRSpec IFU Spectroscopy	(9) SMILES-22-NS
	2		NIRSpec IFU Spectroscopy	(10) SMILES-120-NS
	3		NIRSpec IFU Spectroscopy	(11) SMILES-172-NS
	4		NIRSpec IFU Spectroscopy	(12) SMILES-10-NS
	5		NIRSpec IFU Spectroscopy	(13) SMILES-1536-NS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
	6		NIRSpec IFU Spectroscopy	(14) SMILES-1646-NS
MIRI MRS				
	7		MIRI Medium Resolution Spectroscopy	(1) SMILES-22
	8		MIRI Medium Resolution Spectroscopy	(2) SMILES-120
	9		MIRI Medium Resolution Spectroscopy	(3) SMILES-172
	10		MIRI Medium Resolution Spectroscopy	(4) SMILES-10
	11		MIRI Medium Resolution Spectroscopy	(5) SMILES-1536
	12		MIRI Medium Resolution Spectroscopy	(6) SMILES-1646
	13		MIRI Medium Resolution Spectroscopy	(7) Background
	14		MIRI Medium Resolution Spectroscopy	(8) Background-2

ABSTRACT

We propose a JWST study of the interstellar medium (ISM) and dust properties in six massive quiescent galaxies at z~0.5, providing a novel view into post-quenching conditions beyond the local universe. Infrared observations have revealed unexpected reservoirs of dust and molecular gas in local quiescent galaxies, challenging the traditional picture of quenching as a rapid depletion of the ISM. Early JWST/MIRI imaging results have shown that mid-infrared excesses are surprisingly common even in more distant galaxies, suggesting that dust may persist through the quenching process at the peak epoch of star formation. To uncover the origin of this mid-infrared excess, we require spatially-resolved, spectroscopic diagnostics of both dust and any residual star formation. Here, we propose to leverage the unprecedented sensitivity of JWST's NIRSpec and MIRI IFUs to map polycyclic aromatic hydrocarbons (PAHs) at 3.3, 6.2, 7.7, and 11.3 microns and examine their relationship with residual star formation traced by Pa-alpha. These observations will reveal dust properties, sources of dust heating, and the state of the ISM, shedding light on the quenching process. Our targets are at the highest redshift where the 11.3 PAH, critical for constraining grain sizes, can be observed in the sensitive MRS channel 3, providing our best possible view into the ISM conditions in quenching galaxies beyond the local universe. This program will offer critical insights into how the link between dust and star formation evolves during the quenching process.

OBSERVING DESCRIPTION

This proposal will target 6 z~0.5 extended, quenched galaxies with the NIRSpec IFU (G235M/F170LP and G395M/F290LP) and MIRI MRS (all gratings). Our exposure times are aimed at detecting the Paa emission line in F170LP, the 3.3um PAH in F290LP and the weakest features (either the 11.3um PAH or the 4um continuum) in the MRS. Our targets are extended with diameters that range from 2-6"; as such, they will sometimes fill the IFU FOVs. Because they are extended, the blind pointing accuracy is sufficient and we will not use Target Acquisition.

For NIRSpec IFU, we use the NRSIRS2RAPID readout mode to maximize sensitivity of faint extended emission. As our sources are extended, we use a 4pt dither for better spatial sampling and to mitigate detector effects, cosmic ray hits and MSA leakage (the field our targets are in is not crowded). The surface brightness of our targets is sufficient or the source is compact enough to use master background subtraction from off-target pixels, therefore we do not require dedicated backgrounds for background subtraction.

For MIRI MRS, we will obtain spectroscopy in all three sub-bands. We use the SLOWR1 mode to avoid data volume issues and adopt a 4 pt dither. As our targets are extended, we group our sources by similar exposure times and homogenize their number of groups. We have two target groups with the same Ngroup and we obtain two dedicated background with the same Ngroup. As we are doing spatially resolved studies, this enables pixel-by-pixel background subtraction. We will also obtain simultaneous imaging in F1130W using FASTR1 for improve astrometric corrections. We request that our two groups of targets + background be linked in a non-interruptible sequence (bkg taken first) and we request restricted PA ranges (outside micrometeorite avoidance zones) that place the simultaneous imaging back on existing MIRI imaging from the SMILES survey.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	SMILES-22	RA: 03 32 44.0916 (53.1837150d) Dec: -27 45 41.73 (-27.76159d) Equinox: J2000		
Comments: Category=Galaxy Description=[Active galactic nuclei, Elliptical galaxies, Infrared excess galaxies] Extended=YES				
(2)	SMILES-120	RA: 03 32 28.0956 (53.1170650d) Dec: -27 52 2.58 (-27.86738d) Equinox: J2000		
Comments: Category=Galaxy Description=[Elliptical galaxies, Infrared excess galaxies] Extended=YES				
(3)	SMILES-172	RA: 03 32 27.8861 (53.1161921d) Dec: -27 51 40.60 (-27.86128d) Equinox: J2000		
Comments: Category=Galaxy Description=[Active galactic nuclei, Elliptical galaxies, Infrared excess galaxies] Extended=YES				
(4)	SMILES-10	RA: 03 32 39.1640 (53.1631833d) Dec: -27 48 44.88 (-27.81247d) Equinox: J2000		
Comments: Category=Galaxy Description=[Elliptical galaxies, Infrared excess galaxies] Extended=YES				
(5)	SMILES-1536	RA: 03 32 49.0840 (53.2045167d) Dec: -27 45 19.54 (-27.75543d) Equinox: J2000		
Comments: Category=Galaxy Description=[Elliptical galaxies, Infrared excess galaxies] Extended=YES				
(6)	SMILES-1646	RA: 03 32 40.0433 (53.1668471d) Dec: -27 44 18.96 (-27.73860d) Equinox: J2000		
Comments: Category=Galaxy Description=[Active galactic nuclei, Elliptical galaxies, Infrared excess galaxies] Extended=YES				
(7)	Background	RA: 03 32 36.8020 (53.1533417d) Dec: -27 47 14.23 (-27.78729d) Equinox: J2000		
Comments: Category=Unidentified Description=[Blank field]				

(8)	Background-2	RA: 03 32 23.5021 (53.0979254d) Dec: -27 50 8.45 (-27.83568d) Equinox: J2000
Comments: Category=Unidentified Description=[Blank field]		
(9)	SMILES-22-NS	RA: 03 32 44.0916 (53.1837150d) Dec: -27 45 41.73 (-27.76159d) Equinox: J2000
Comments: Category=Galaxy Description=[Active galactic nuclei, Elliptical galaxies, Infrared excess galaxies] Extended=YES		
(10)	SMILES-120-NS	RA: 03 32 28.0956 (53.1170650d) Dec: -27 52 2.58 (-27.86738d) Equinox: J2000
Comments: Category=Galaxy Description=[Elliptical galaxies, Infrared excess galaxies] Extended=YES		
(11)	SMILES-172-NS	RA: 03 32 27.8861 (53.1161921d) Dec: -27 51 40.60 (-27.86128d) Equinox: J2000
Comments: Category=Galaxy Description=[Active galactic nuclei, Elliptical galaxies, Infrared excess galaxies] Extended=YES		
(12)	SMILES-10-NS	RA: 03 32 39.1640 (53.1631833d) Dec: -27 48 44.88 (-27.81247d) Equinox: J2000
Comments: Category=Galaxy Description=[Elliptical galaxies, Infrared excess galaxies] Extended=YES		
(13)	SMILES-1536-NS	RA: 03 32 49.0840 (53.2045167d) Dec: -27 45 19.54 (-27.75543d) Equinox: J2000
Comments: Category=Galaxy Description=[Elliptical galaxies, Infrared excess galaxies] Extended=YES		
(14)	SMILES-1646-NS	RA: 03 32 40.0433 (53.1668471d) Dec: -27 44 18.96 (-27.73860d) Equinox: J2000
Comments: Category=Galaxy Description=[Active galactic nuclei, Elliptical galaxies, Infrared excess galaxies] Extended=YES		

Observation

Proposal 7874, Observation 1

Tue Aug 19 18:00:11 GMT 2025

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

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
(9)	SMILES-22-NS	RA: 03 32 44.0916 (53.1837150d) Dec: -27 45 41.73 (-27.76159d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Active galactic nuclei, Elliptical galaxies, Infrared excess galaxies]
Extended=YES

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G235M/F170LP	NRSIRS2RAPID	21	2	false	true	NONE	4	8	2567.645	
2	G395M/F290LP	NRSIRS2RAPID	10	1	false	true	NONE	4	4	641.911	

Observation

Proposal 7874, Observation 2

Tue Aug 19 18:00:11 GMT 2025

Diagnostic Status: Warning

Observing Template: NIRSpec IFU 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
(10)	SMILES-120-NS	RA: 03 32 28.0956 (53.1170650d) Dec: -27 52 2.58 (-27.86738d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Elliptical galaxies, Infrared excess galaxies]
Extended=YES

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G235M/F170LP	NRSIRS2RAPID	21	2	false	true	NONE	4	8	2567.645	
2	G395M/F290LP	NRSIRS2RAPID	10	1	false	true	NONE	4	4	641.911	

Observation

Proposal 7874, Observation 3

Tue Aug 19 18:00:11 GMT 2025

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

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
(11)	SMILES-172-NS	RA: 03 32 27.8861 (53.1161921d) Dec: -27 51 40.60 (-27.86128d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Active galactic nuclei, Elliptical galaxies, Infrared excess galaxies]
Extended=YES

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G235M/F170LP	NRSIRS2RAPID	21	2	false	true	NONE	4	8	2567.645	
2	G395M/F290LP	NRSIRS2RAPID	12	1	false	true	NONE	4	4	758.622	

Observation

Proposal 7874, Observation 4

Tue Aug 19 18:00:11 GMT 2025

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

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
(12)	SMILES-10-NS	RA: 03 32 39.1640 (53.1631833d) Dec: -27 48 44.88 (-27.81247d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Elliptical galaxies, Infrared excess galaxies]
Extended=YES

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G235M/F170LP	NRSIRS2RAPID	21	2	false	true	NONE	4	8	2567.645	
2	G395M/F290LP	NRSIRS2RAPID	21	1	false	true	NONE	4	4	1283.822	

Observation

Proposal 7874, Observation 5

Tue Aug 19 18:00:11 GMT 2025

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

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
(13)	SMILES-1536-NS	RA: 03 32 49.0840 (53.2045167d) Dec: -27 45 19.54 (-27.75543d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Elliptical galaxies, Infrared excess galaxies]
Extended=YES

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G235M/F170LP	NRSIRS2RAPID	21	2	false	true	NONE	4	8	2567.645	
2	G395M/F290LP	NRSIRS2RAPID	22	1	false	true	NONE	4	4	1342.178	

Observation

Proposal 7874, Observation 6

Tue Aug 19 18:00:11 GMT 2025

Diagnostic Status: Warning

Observing Template: NIRSpec IFU 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
(14)	SMILES-1646-NS	RA: 03 32 40.0433 (53.1668471d) Dec: -27 44 18.96 (-27.73860d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Active galactic nuclei, Elliptical galaxies, Infrared excess galaxies]
Extended=YES

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G235M/F170LP	NRSIRS2RAPID	21	2	false	true	NONE	4	8	2567.645	
2	G395M/F290LP	NRSIRS2RAPID	9	1	false	true	NONE	4	4	583.556	

Observation

Proposal 7874, Observation 7

Tue Aug 19 18:00:11 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[Observation 13]

Diagnostics

(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Observation 7) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	SMILES-22	RA: 03 32 44.0916 (53.1837150d) Dec: -27 45 41.73 (-27.76159d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Active galactic nuclei, Elliptical galaxies, Infrared excess galaxies]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	Channel 1	YES	FULL	Allow Auto Reorder

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	ETC Wkbk.Calc ID
1		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
1	SHORT(A)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
1	SHORT(A)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
2		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
2	MEDIUM(B)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
2	MEDIUM(B)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
3		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
3	LONG(C)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
3	LONG(C)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	

Special Requirements	
	Aperture PA Range 70 to 78 Degrees (V3 70.0 to 78.0) Sequence Observations 13, 7, 10, 11, 12 (reordered), Non-interruptible Same Aperture PA 7, 10, 11, 12, 13

Observation

Proposal 7874, Observation 8

Tue Aug 19 18:00:11 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[Observation 14]

Diagnostics

(Visit 8:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Observation 8) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(2)	SMILES-120	RA: 03 32 28.0956 (53.1170650d) Dec: -27 52 2.58 (-27.86738d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Elliptical galaxies, Infrared excess galaxies]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	Channel 1	YES	FULL	Allow Auto Reorder

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	ETC Wkbk.Calc ID
1		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
1	SHORT(A)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
1	SHORT(A)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
2		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
2	MEDIUM(B)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
2	MEDIUM(B)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
3		IMAGER	F1130W	FASTR1	244	2	1	Dither 1	4	8	5427.978	
3	LONG(C)	MRSLONG		SLOWR1	28	2	1	Dither 1	4	8	5446.902	
3	LONG(C)	MRSSHORT		SLOWR1	28	2	1	Dither 1	4	8	5446.902	

Special Requirements	
	Aperture PA Range 317.0 to 318.0 Degrees (V3 317.0 to 318.0) Sequence Observations 14, 8, 9 (reordered), Non-interruptible Same Aperture PA 8, 9, 14

Observation

Proposal 7874, Observation 9

Tue Aug 19 18:00:11 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[Observation 14]

Diagnostics

(Visit 9:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Observation 9) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	SMILES-172	RA: 03 32 27.8861 (53.1161921d) Dec: -27 51 40.60 (-27.86128d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Active galactic nuclei, Elliptical galaxies, Infrared excess galaxies]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	Channel 1	YES	FULL	Allow Auto Reorder

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	ETC Wkbk.Calc ID
1		IMAGER	F1130W	FASTR1	241	1	1	Dither 1	4	4	2675.139	
1	SHORT(A)	MRSLONG		SLOWR1	28	1	1	Dither 1	4	4	2675.671	
1	SHORT(A)	MRSSHORT		SLOWR1	28	1	1	Dither 1	4	4	2675.671	
2		IMAGER	F1130W	FASTR1	241	1	1	Dither 1	4	4	2675.139	
2	MEDIUM(B)	MRSLONG		SLOWR1	28	1	1	Dither 1	4	4	2675.671	
2	MEDIUM(B)	MRSSHORT		SLOWR1	28	1	1	Dither 1	4	4	2675.671	
3		IMAGER	F1130W	FASTR1	241	1	1	Dither 1	4	4	2675.139	
3	LONG(C)	MRSLONG		SLOWR1	28	1	1	Dither 1	4	4	2675.671	
3	LONG(C)	MRSSHORT		SLOWR1	28	1	1	Dither 1	4	4	2675.671	

Special Requirements	
	Aperture PA Range 317.0 to 318.0 Degrees (V3 317.0 to 318.0) Sequence Observations 14, 8, 9 (reordered), Non-interruptible Same Aperture PA 8, 9, 14

Observation

Proposal 7874, Observation 10

Tue Aug 19 18:00:11 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[Observation 13]

Diagnostics

(Visit 10:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Observation 10) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(4)	SMILES-10	RA: 03 32 39.1640 (53.1631833d) Dec: -27 48 44.88 (-27.81247d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Elliptical galaxies, Infrared excess galaxies]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	Channel 1	YES	FULL	Allow Auto Reorder

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	ETC Wkbk.Calc ID
1		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
1	SHORT(A)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
1	SHORT(A)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
2		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
2	MEDIUM(B)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
2	MEDIUM(B)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
3		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
3	LONG(C)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
3	LONG(C)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	

Special Requirements	
	Sequence Observations 13, 7, 10, 11, 12 (reordered), Non-interruptible Same Aperture PA 7, 10, 11, 12, 13

Observation

Proposal 7874, Observation 11

Tue Aug 19 18:00:11 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[Observation 13]

Diagnostics

(Visit 11:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Observation 11) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(5)	SMILES-1536	RA: 03 32 49.0840 (53.2045167d) Dec: -27 45 19.54 (-27.75543d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Elliptical galaxies, Infrared excess galaxies]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	Channel 1	YES	FULL	Allow Auto Reorder

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	ETC Wkbk.Calc ID
1		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
1	SHORT(A)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
1	SHORT(A)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
2		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
2	MEDIUM(B)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
2	MEDIUM(B)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
3		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
3	LONG(C)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
3	LONG(C)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	

Special Requirements	
	Sequence Observations 13, 7, 10, 11, 12 (reordered), Non-interruptible Same Aperture PA 7, 10, 11, 12, 13

Observation

Proposal 7874, Observation 12

Tue Aug 19 18:00:11 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[Observation 13]

Diagnostics

(Visit 12:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Observation 12) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(6)	SMILES-1646	RA: 03 32 40.0433 (53.1668471d) Dec: -27 44 18.96 (-27.73860d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Active galactic nuclei, Elliptical galaxies, Infrared excess galaxies]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	Channel 1	YES	FULL	Allow Auto Reorder

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	ETC Wkbk.Calc ID
1		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
1	SHORT(A)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
1	SHORT(A)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
2		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
2	MEDIUM(B)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
2	MEDIUM(B)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
3		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
3	LONG(C)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
3	LONG(C)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	

Special Requirements	
	Sequence Observations 13, 7, 10, 11, 12 (reordered), Non-interruptible Same Aperture PA 7, 10, 11, 12, 13

Observation

Proposal 7874, Observation 13

Tue Aug 19 18:00:11 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observation For: [Observation 7, Observation 10, Observation 11, Observation 12]

Diagnostics

(Visit 13:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Observation 13) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(7)	Background	RA: 03 32 36.8020 (53.1533417d) Dec: -27 47 14.23 (-27.78729d) Equinox: J2000		

Comments:
Category=Unidentified
Description=[Blank field]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	Channel 1	YES	FULL	Allow Auto Reorder

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	ETC Wkbk.Calc ID
1		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
1	SHORT(A)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
1	SHORT(A)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
2		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
2	MEDIUM(B)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
2	MEDIUM(B)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
3		IMAGER	F1130W	FASTR1	189	1	1	Dither 1	4	4	2097.93	
3	LONG(C)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	
3	LONG(C)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	

Special Requirements	
	Aperture PA Range 70 to 78 Degrees (V3 70.0 to 78.0) Sequence Observations 13, 7, 10, 11, 12 (reordered), Non-interruptible Same Aperture PA 7, 10, 11, 12, 13

Observation

Proposal 7874, Observation 14

Tue Aug 19 18:00:11 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observation For: [Observation 8, Observation 9]

Diagnostics

(Visit 14:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Observation 14) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(8)	Background-2	RA: 03 32 23.5021 (53.0979254d) Dec: -27 50 8.45 (-27.83568d) Equinox: J2000		

Comments:
Category=Unidentified
Description=[Blank field]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	Channel 1	YES	FULL	Allow Auto Reorder

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	ETC Wkbk.Calc ID
1		IMAGER	F1130W	FASTR1	241	1	1	Dither 1	4	4	2675.139	
1	SHORT(A)	MRSLONG		SLOWR1	28	1	1	Dither 1	4	4	2675.671	
1	SHORT(A)	MRSSHORT		SLOWR1	28	1	1	Dither 1	4	4	2675.671	
2		IMAGER	F1130W	FASTR1	241	1	1	Dither 1	4	4	2675.139	
2	MEDIUM(B)	MRSLONG		SLOWR1	28	1	1	Dither 1	4	4	2675.671	
2	MEDIUM(B)	MRSSHORT		SLOWR1	28	1	1	Dither 1	4	4	2675.671	
3		IMAGER	F1130W	FASTR1	241	1	1	Dither 1	4	4	2675.139	
3	LONG(C)	MRSLONG		SLOWR1	28	1	1	Dither 1	4	4	2675.671	
3	LONG(C)	MRSSHORT		SLOWR1	28	1	1	Dither 1	4	4	2675.671	

Special Requirements	
	Aperture PA Range 317.0 to 318.0 Degrees (V3 317.0 to 318.0) Sequence Observations 14, 8, 9 (reordered), Non-interruptible Same Aperture PA 8, 9, 14