



# 6130 - The most typical planet formation in the most typical environments

Cycle: 3, Proposal Category: GO

## INVESTIGATORS

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Prof. Josh Eisner (CoI)	University of Arizona
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Dr. Jinyoung Serena Kim (CoI)	University of Arizona
Dr. Min Fang (CoI)	Purple Mountain Observatory, CAS
Rachel Erin Gross (CoI)	The University of Virginia
Prof. Jonathan Charles Tan (CoI) (ESA Member)	Chalmers University of Technology

## OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
MIRI				
	1	SRC47	MIRI Medium Resolution Spectroscopy	(1) SRC47
	5	SRC25	MIRI Medium Resolution Spectroscopy	(5) SRC25
	6	SRC27	MIRI Medium Resolution Spectroscopy	(6) SRC27
	7	SRC16	MIRI Medium Resolution Spectroscopy	(7) SRC16
	8	SRC23	MIRI Medium Resolution Spectroscopy	(8) SRC23
	9	SRC38	MIRI Medium Resolution Spectroscopy	(9) SRC38
	10	SRC55	MIRI Medium Resolution Spectroscopy	(10) SRC55
	11	SRC50	MIRI Medium Resolution Spectroscopy	(11) SRC50

## **ABSTRACT**

The inner (<10 AU) regions of protoplanetary disks are where most planets form locally, therefore understanding the structure, composition, and evolution of the inner disk is crucial to interpreting the demographics of exoplanets. We propose joint JWST MIRI-MRS and ALMA 0.87 mm observations of 11 protoplanetary disks in the Orion NGC 1977 region. NGC 1977 is a young stellar cluster with a UV radiation field that is weaker than those found at the centers of O-star-hosting clusters, but stronger than those found in low-mass star-forming regions (SFRs). These “intermediate” UV fields are the most common external UV radiation field strengths found in Galactic SFRs, yet disk properties in intermediately irradiated SFRs remain poorly constrained. Theoretical work suggests that intermediate external UV fields may dramatically affect the chemical evolution of the inner regions of protoplanetary disks through enhanced irradiation of the outer disk and subsequent mixing of the outer and inner disk. Our program will test this hypothesis by measuring the inner disk chemical inventories and outer disk mm dust reservoirs over a representative sample of intermediately irradiated disks. With these measurements, we will be able to 1) determine whether intermediately irradiated disks have different inner disk compositions than disks in low-mass (i.e., weakly irradiated) SFRs, and 2) identify the dominant physical mechanisms driving the observed chemical differences (or lack thereof). This program will constrain the initial conditions of planet formation in the most common environments of star formation, and it will complement ongoing Cycle 1/2 MIRI-MRS surveys of other disk populations.

## **OBSERVING DESCRIPTION**

We propose to use JWST MIRI MRS to observe 11 disks in the NGC 1977 cluster. Since we aim to obtain complete spectral coverage, we require exposures in all three grating settings: SHORT (A), MEDIUM (B), and LONG (C). Each observation begins with Target Acquisition to minimize fringing which can reduce the data quality. Exposure times are determined such that we achieve a S/N > 300 between 6 and 18 microns, where the main spectral features needed for our science are located. To maximize the scientific output of this program and improve astrometric solutions of individual MRS exposures, we take simultaneous imaging in the F560W, F770W, and F1000 filters at no extra cost. Since we expect the inner-disk mid-IR emission to be essentially point-like with MRS, we adopt a 4-point dither pattern.

Proposal 6130 - Targets - The most typical planet formation in the most typical environments

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	SRC47	RA: 05 35 28.6942 (83.8695592d) Dec: -04 48 16.43 (-4.80456d) Equinox: J2000	Proper Motion RA: 1.657 mas/yr Proper Motion Dec: -0.599 mas/yr Epoch of Position: 2000	
<i>Comments:</i> Category=Star Description=[Protoplanetary disks] Extended=NO				
(5)	SRC25	RA: 05 35 21.5144 (83.8396433d) Dec: -04 50 45.28 (-4.84591d) Equinox: J2000	Proper Motion RA: 1.079 mas/yr Proper Motion Dec: -1.026 mas/yr Epoch of Position: 2000	
<i>Comments:</i> Category=Star Description=[Protoplanetary disks] Extended=NO				
(6)	SRC27	RA: 05 35 32.7231 (83.8863463d) Dec: -04 50 11.85 (-4.83663d) Equinox: J2000	Proper Motion RA: 1.68 mas/yr Proper Motion Dec: -1.507 mas/yr Epoch of Position: 2000	
<i>Comments:</i> Category=Star Description=[Protoplanetary disks] Extended=NO				
(7)	SRC16	RA: 05 35 18.3894 (83.8266225d) Dec: -04 53 23.58 (-4.88988d) Equinox: J2000	Proper Motion RA: 1.337 mas/yr Proper Motion Dec: -1.223 mas/yr Epoch of Position: 2000	
<i>Comments:</i> Category=Star Description=[Protoplanetary disks] Extended=NO				
(8)	SRC23	RA: 05 35 3.7129 (83.7654704d) Dec: -04 50 53.07 (-4.84807d) Equinox: J2000	Proper Motion RA: 0.45 mas/yr Proper Motion Dec: -0.935 mas/yr Epoch of Position: 2000	
<i>Comments:</i> Category=Star Description=[Protoplanetary disks] Extended=NO				
(9)	SRC38	RA: 05 35 5.8602 (83.7744175d) Dec: -04 48 43.33 (-4.81204d) Equinox: J2000	Proper Motion RA: 0.417 mas/yr Proper Motion Dec: -1.111 mas/yr Epoch of Position: 2000	
<i>Comments:</i> Category=Star Description=[Protoplanetary disks] Extended=NO				
(10)	SRC55	RA: 05 35 34.5060 (83.8937750d) Dec: -04 46 54.91 (-4.78192d) Equinox: J2000	Proper Motion RA: 1.31 mas/yr Proper Motion Dec: -0.894 mas/yr Epoch of Position: 2000	
<i>Comments:</i> Category=Star Description=[Protoplanetary disks] Extended=NO				

Fixed Targets

## Proposal 6130 - Targets - The most typical planet formation in the most typical environments

(11)	SRC50	RA: 05 35 35.2234 (83.8967642d) Dec: -04 47 39.73 (-4.79437d) Equinox: J2000	Proper Motion RA: 1.038 mas/yr Proper Motion Dec: -0.622 mas/yr Epoch of Position: 2000
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*Comments:*

*Category=Star*

*Description=[Protoplanetary disks]*

*Extended=NO*

Proposal 6130 - Observation 1 - The most typical planet formation in the most typical environments

Fri Jan 03 19:00:10 GMT 2025

<b>Observation</b>	<b>Proposal 6130, Observation 1: SRC47</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>			<b>Targ. Coord. Corrections</b>			<b>Miscellaneous</b>				
	(1)	SRC47	RA: 05 35 28.6942 (83.8695592d) Dec: -04 48 16.43 (-4.80456d) Equinox: J2000			Proper Motion RA: 1.657 mas/yr Proper Motion Dec: -0.599 mas/yr Epoch of Position: 2000							
<i>Comments:</i> Category=Star Description=[Protoplanetary disks] Extended=NO													
<b>Acquisition</b>	<b>#</b>	<b>Target</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>				
	1	SAME	FND	FAST	6	1	1	16.65	175492				
<b>Template</b>	<b>Primary Channel</b>		<b>Simultaneous Imaging</b>			<b>Imager Subarray</b>			<b>Grating Wheel Direction</b>				
	All MRS		YES			FULL			Allow Auto Reorder				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>			<b>Optimized For</b>			<b>Direction</b>					
	1	4-Point			POINT SOURCE			NEGATIVE					
<b>Spectral Elements</b>	<b>#</b>	<b>Wavelength Range</b>	<b>Detector</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Exposures/Dith</b>	<b>Dither</b>	<b>Total Dithers</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>
	1		IMAGER	F560W	FASTR1	8	2	1	Dither 1	4	8	188.703	175492
	1	SHORT(A)	MRSLONG		FASTR1	13	5	1	Dither 1	4	20	765.911	175492
	1	SHORT(A)	MRSSHORT		FASTR1	13	5	1	Dither 1	4	20	765.911	175492
	2		IMAGER	F770W	FASTR1	8	2	1	Dither 1	4	8	188.703	175492
	2	MEDIUM(B)	MRSLONG		FASTR1	13	5	1	Dither 1	4	20	765.911	175492
	2	MEDIUM(B)	MRSSHORT		FASTR1	13	5	1	Dither 1	4	20	765.911	175492
	3		IMAGER	F1000W	FASTR1	8	2	1	Dither 1	4	8	188.703	175492
	3	LONG(C)	MRSLONG		FASTR1	13	5	1	Dither 1	4	20	765.911	175492
	3	LONG(C)	MRSSHORT		FASTR1	13	5	1	Dither 1	4	20	765.911	175492

Proposal 6130 - Observation 5 - The most typical planet formation in the most typical environments

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<b>Observation</b>	<b>Proposal 6130, Observation 5: SRC25</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 5:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>			<b>Targ. Coord. Corrections</b>			<b>Miscellaneous</b>				
	(5)	SRC25	RA: 05 35 21.5144 (83.8396433d) Dec: -04 50 45.28 (-4.84591d) Equinox: J2000			Proper Motion RA: 1.079 mas/yr Proper Motion Dec: -1.026 mas/yr Epoch of Position: 2000							
<i>Comments:</i> <i>Category=Star</i> <i>Description=[Protoplanetary disks]</i> <i>Extended=NO</i>													
<b>Acquisition</b>	<b>#</b>	<b>Target</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>				
	1	SAME	FND	FAST	6	1	1	16.65	175558				
<b>Template</b>	<b>Primary Channel</b>		<b>Simultaneous Imaging</b>			<b>Imager Subarray</b>			<b>Grating Wheel Direction</b>				
	All MRS		YES			FULL			Allow Auto Reorder				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>			<b>Optimized For</b>			<b>Direction</b>					
	1	4-Point			POINT SOURCE			NEGATIVE					
<b>Spectral Elements</b>	<b>#</b>	<b>Wavelength Range</b>	<b>Detector</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Exposures/Dith</b>	<b>Dither</b>	<b>Total Dithers</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>
	1		IMAGER	F560W	FASTR1	8	2	1	Dither 1	4	8	188.703	175558
	1	SHORT(A)	MRSLONG		FASTR1	13	5	1	Dither 1	4	20	765.911	175558
	1	SHORT(A)	MRSSHORT		FASTR1	13	5	1	Dither 1	4	20	765.911	175558
	2		IMAGER	F770W	FASTR1	8	2	1	Dither 1	4	8	188.703	175558
	2	MEDIUM(B)	MRSLONG		FASTR1	13	5	1	Dither 1	4	20	765.911	175558
	2	MEDIUM(B)	MRSSHORT		FASTR1	13	5	1	Dither 1	4	20	765.911	175558
	3		IMAGER	F1000W	FASTR1	8	2	1	Dither 1	4	8	188.703	175558
	3	LONG(C)	MRSLONG		FASTR1	13	5	1	Dither 1	4	20	765.911	175558
	3	LONG(C)	MRSSHORT		FASTR1	13	5	1	Dither 1	4	20	765.911	175558

Proposal 6130 - Observation 6 - The most typical planet formation in the most typical environments

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<b>Observation</b>	<b>Proposal 6130, Observation 6: SRC27</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 6:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>			<b>Targ. Coord. Corrections</b>			<b>Miscellaneous</b>				
	(6)	SRC27	RA: 05 35 32.7231 (83.8863463d) Dec: -04 50 11.85 (-4.83663d) Equinox: J2000			Proper Motion RA: 1.68 mas/yr Proper Motion Dec: -1.507 mas/yr Epoch of Position: 2000							
<i>Comments:</i> Category=Star Description=[Protoplanetary disks] Extended=NO													
<b>Acquisition</b>	<b>#</b>	<b>Target</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>				
	1	SAME	FND	FAST	6	1	1	16.65	175563				
<b>Template</b>	<b>Primary Channel</b>			<b>Simultaneous Imaging</b>			<b>Imager Subarray</b>			<b>Grating Wheel Direction</b>			
	All MRS			YES			FULL			Allow Auto Reorder			
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>				<b>Optimized For</b>			<b>Direction</b>				
	1	4-Point				POINT SOURCE			NEGATIVE				
<b>Spectral Elements</b>	<b>#</b>	<b>Wavelength Range</b>	<b>Detector</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Exposures/Dith</b>	<b>Dither</b>	<b>Total Dithers</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>
	1		IMAGER	F560W	FASTR1	8	2	1	Dither 1	4	8	188.703	175563
	1	SHORT(A)	MRSLONG		FASTR1	16	4	1	Dither 1	4	16	743.711	175563
	1	SHORT(A)	MRSSHORT		FASTR1	16	4	1	Dither 1	4	16	743.711	175563
	2		IMAGER	F770W	FASTR1	8	2	1	Dither 1	4	8	188.703	175563
	2	MEDIUM(B)	MRSLONG		FASTR1	16	4	1	Dither 1	4	16	743.711	175563
	2	MEDIUM(B)	MRSSHORT		FASTR1	16	4	1	Dither 1	4	16	743.711	175563
	3		IMAGER	F1000W	FASTR1	8	2	1	Dither 1	4	8	188.703	175563
	3	LONG(C)	MRSLONG		FASTR1	16	4	1	Dither 1	4	16	743.711	175563
	3	LONG(C)	MRSSHORT		FASTR1	16	4	1	Dither 1	4	16	743.711	175563

Proposal 6130 - Observation 7 - The most typical planet formation in the most typical environments

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<b>Observation</b>	<b>Proposal 6130, Observation 7: SRC16</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>			<b>Targ. Coord. Corrections</b>			<b>Miscellaneous</b>				
	(7)	SRC16	RA: 05 35 18.3894 (83.8266225d) Dec: -04 53 23.58 (-4.88988d) Equinox: J2000			Proper Motion RA: 1.337 mas/yr Proper Motion Dec: -1.223 mas/yr Epoch of Position: 2000							
<i>Comments:</i> <i>Category=Star</i> <i>Description=[Protoplanetary disks]</i> <i>Extended=NO</i>													
<b>Acquisition</b>	<b>#</b>	<b>Target</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>				
	1	SAME	FND	FAST	6	1	1	16.65	175574				
<b>Template</b>	<b>Primary Channel</b>		<b>Simultaneous Imaging</b>			<b>Imager Subarray</b>			<b>Grating Wheel Direction</b>				
	All MRS		YES			FULL			Allow Auto Reorder				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>			<b>Optimized For</b>			<b>Direction</b>					
	1	4-Point			POINT SOURCE			NEGATIVE					
<b>Spectral Elements</b>	<b>#</b>	<b>Wavelength Range</b>	<b>Detector</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Exposures/Dith</b>	<b>Dither</b>	<b>Total Dithers</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>
	1		IMAGER	F560W	FASTR1	8	2	1	Dither 1	4	8	188.703	175574
	1	SHORT(A)	MRSLONG		FASTR1	16	4	1	Dither 1	4	16	743.711	175574
	1	SHORT(A)	MRSSHORT		FASTR1	16	4	1	Dither 1	4	16	743.711	175574
	2		IMAGER	F770W	FASTR1	8	2	1	Dither 1	4	8	188.703	175574
	2	MEDIUM(B)	MRSLONG		FASTR1	16	4	1	Dither 1	4	16	743.711	175574
	2	MEDIUM(B)	MRSSHORT		FASTR1	16	4	1	Dither 1	4	16	743.711	175574
	3		IMAGER	F1000W	FASTR1	8	2	1	Dither 1	4	8	188.703	175574
	3	LONG(C)	MRSLONG		FASTR1	16	4	1	Dither 1	4	16	743.711	175574
	3	LONG(C)	MRSSHORT		FASTR1	16	4	1	Dither 1	4	16	743.711	175574

Proposal 6130 - Observation 8 - The most typical planet formation in the most typical environments

Fri Jan 03 19:00:10 GMT 2025

<b>Observation</b>	<b>Proposal 6130, Observation 8: SRC23</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 8:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>			<b>Targ. Coord. Corrections</b>			<b>Miscellaneous</b>				
	(8)	SRC23	RA: 05 35 3.7129 (83.7654704d) Dec: -04 50 53.07 (-4.84807d) Equinox: J2000			Proper Motion RA: 0.45 mas/yr Proper Motion Dec: -0.935 mas/yr Epoch of Position: 2000							
<i>Comments:</i> <i>Category=Star</i> <i>Description=[Protoplanetary disks]</i> <i>Extended=NO</i>													
<b>Acquisition</b>	<b>#</b>	<b>Target</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>				
	1	SAME	FND	FAST	6	1	1	16.65	175579				
<b>Template</b>	<b>Primary Channel</b>		<b>Simultaneous Imaging</b>			<b>Imager Subarray</b>			<b>Grating Wheel Direction</b>				
	All MRS		YES			FULL			Allow Auto Reorder				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>			<b>Optimized For</b>			<b>Direction</b>					
	1	4-Point			POINT SOURCE			NEGATIVE					
<b>Spectral Elements</b>	<b>#</b>	<b>Wavelength Range</b>	<b>Detector</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Exposures/Dith</b>	<b>Dither</b>	<b>Total Dithers</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>
	1		IMAGER	F560W	FASTR1	8	2	1	Dither 1	4	8	188.703	175579
	1	SHORT(A)	MRSLONG		FASTR1	13	5	1	Dither 1	4	20	765.911	175579
	1	SHORT(A)	MRSSHORT		FASTR1	13	5	1	Dither 1	4	20	765.911	175579
	2		IMAGER	F770W	FASTR1	8	2	1	Dither 1	4	8	188.703	175579
	2	MEDIUM(B)	MRSLONG		FASTR1	13	5	1	Dither 1	4	20	765.911	175579
	2	MEDIUM(B)	MRSSHORT		FASTR1	13	5	1	Dither 1	4	20	765.911	175579
	3		IMAGER	F1000W	FASTR1	8	2	1	Dither 1	4	8	188.703	175579
	3	LONG(C)	MRSLONG		FASTR1	13	5	1	Dither 1	4	20	765.911	175579
	3	LONG(C)	MRSSHORT		FASTR1	13	5	1	Dither 1	4	20	765.911	175579

Proposal 6130 - Observation 9 - The most typical planet formation in the most typical environments

Fri Jan 03 19:00:10 GMT 2025

<b>Observation</b>	<b>Proposal 6130, Observation 9: SRC38</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 9:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>			<b>Targ. Coord. Corrections</b>			<b>Miscellaneous</b>				
	(9)	SRC38	RA: 05 35 5.8602 (83.7744175d) Dec: -04 48 43.33 (-4.81204d) Equinox: J2000			Proper Motion RA: 0.417 mas/yr Proper Motion Dec: -1.111 mas/yr Epoch of Position: 2000							
<i>Comments:</i> Category=Star Description=[Protoplanetary disks] Extended=NO													
<b>Acquisition</b>	<b>#</b>	<b>Target</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>				
	1	SAME	FND	FAST	6	1	1	16.65	175585				
<b>Template</b>	<b>Primary Channel</b>		<b>Simultaneous Imaging</b>			<b>Imager Subarray</b>			<b>Grating Wheel Direction</b>				
	All MRS		YES			FULL			Allow Auto Reorder				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>			<b>Optimized For</b>			<b>Direction</b>					
	1	4-Point			POINT SOURCE			NEGATIVE					
<b>Spectral Elements</b>	<b>#</b>	<b>Wavelength Range</b>	<b>Detector</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Exposures/Dith</b>	<b>Dither</b>	<b>Total Dithers</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>
	1		IMAGER	F560W	FASTR1	8	2	1	Dither 1	4	8	188.703	175585
	1	SHORT(A)	MRSLONG		FASTR1	30	5	1	Dither 1	4	20	1709.425	175585
	1	SHORT(A)	MRSSHORT		FASTR1	30	5	1	Dither 1	4	20	1709.425	175585
	2		IMAGER	F770W	FASTR1	8	2	1	Dither 1	4	8	188.703	175585
	2	MEDIUM(B)	MRSLONG		FASTR1	30	5	1	Dither 1	4	20	1709.425	175585
	2	MEDIUM(B)	MRSSHORT		FASTR1	30	5	1	Dither 1	4	20	1709.425	175585
	3		IMAGER	F1000W	FASTR1	8	2	1	Dither 1	4	8	188.703	175585
	3	LONG(C)	MRSLONG		FASTR1	30	5	1	Dither 1	4	20	1709.425	175585
	3	LONG(C)	MRSSHORT		FASTR1	30	5	1	Dither 1	4	20	1709.425	175585

Proposal 6130 - Observation 10 - The most typical planet formation in the most typical environments

Fri Jan 03 19:00:10 GMT 2025

<b>Observation</b>	<b>Proposal 6130, Observation 10: SRC55</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 10:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>			<b>Targ. Coord. Corrections</b>			<b>Miscellaneous</b>				
	(10)	SRC55	RA: 05 35 34.5060 (83.8937750d) Dec: -04 46 54.91 (-4.78192d) Equinox: J2000			Proper Motion RA: 1.31 mas/yr Proper Motion Dec: -0.894 mas/yr Epoch of Position: 2000							
<i>Comments:</i> Category=Star Description=[Protoplanetary disks] Extended=NO													
<b>Acquisition</b>	<b>#</b>	<b>Target</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>				
	1	SAME	FND	FAST	6	1	1	16.65	175598				
<b>Template</b>	<b>Primary Channel</b>		<b>Simultaneous Imaging</b>			<b>Imager Subarray</b>			<b>Grating Wheel Direction</b>				
	All MRS		YES			FULL			Allow Auto Reorder				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>			<b>Optimized For</b>			<b>Direction</b>					
	1	4-Point			POINT SOURCE			NEGATIVE					
<b>Spectral Elements</b>	<b>#</b>	<b>Wavelength Range</b>	<b>Detector</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Exposures/Dith</b>	<b>Dither</b>	<b>Total Dithers</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>
	1		IMAGER	F560W	FASTR1	8	2	1	Dither 1	4	8	188.703	175598
	1	SHORT(A)	MRSLONG		FASTR1	40	5	1	Dither 1	4	20	2264.433	175598
	1	SHORT(A)	MRSSHORT		FASTR1	40	5	1	Dither 1	4	20	2264.433	175598
	2		IMAGER	F770W	FASTR1	8	2	1	Dither 1	4	8	188.703	175598
	2	MEDIUM(B)	MRSLONG		FASTR1	40	5	1	Dither 1	4	20	2264.433	175598
	2	MEDIUM(B)	MRSSHORT		FASTR1	40	5	1	Dither 1	4	20	2264.433	175598
	3		IMAGER	F1000W	FASTR1	8	2	1	Dither 1	4	8	188.703	175598
	3	LONG(C)	MRSLONG		FASTR1	40	5	1	Dither 1	4	20	2264.433	175598
	3	LONG(C)	MRSSHORT		FASTR1	40	5	1	Dither 1	4	20	2264.433	175598

Proposal 6130 - Observation 11 - The most typical planet formation in the most typical environments

Fri Jan 03 19:00:10 GMT 2025

<b>Observation</b>	<b>Proposal 6130, Observation 11: SRC50</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 11:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>			<b>Targ. Coord. Corrections</b>			<b>Miscellaneous</b>				
	(11)	SRC50	RA: 05 35 35.2234 (83.8967642d) Dec: -04 47 39.73 (-4.79437d) Equinox: J2000			Proper Motion RA: 1.038 mas/yr Proper Motion Dec: -0.622 mas/yr Epoch of Position: 2000							
<i>Comments:</i> <i>Category=Star</i> <i>Description=[Protoplanetary disks]</i> <i>Extended=NO</i>													
<b>Acquisition</b>	<b>#</b>	<b>Target</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>				
	1	SAME	FND	FAST	6	1	1	16.65	175686				
<b>Template</b>	<b>Primary Channel</b>		<b>Simultaneous Imaging</b>			<b>Imager Subarray</b>			<b>Grating Wheel Direction</b>				
	All MRS		YES			FULL			Allow Auto Reorder				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>			<b>Optimized For</b>			<b>Direction</b>					
	1	4-Point			POINT SOURCE			NEGATIVE					
<b>Spectral Elements</b>	<b>#</b>	<b>Wavelength Range</b>	<b>Detector</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Exposures/Dith</b>	<b>Dither</b>	<b>Total Dithers</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>
	1		IMAGER	F560W	FASTR1	8	2	1	Dither 1	4	8	188.703	175686
	1	SHORT(A)	MRSLONG		FASTR1	40	5	1	Dither 1	4	20	2264.433	175686
	1	SHORT(A)	MRSSHORT		FASTR1	40	5	1	Dither 1	4	20	2264.433	175686
	2		IMAGER	F770W	FASTR1	8	2	1	Dither 1	4	8	188.703	175686
	2	MEDIUM(B)	MRSLONG		FASTR1	40	5	1	Dither 1	4	20	2264.433	175686
	2	MEDIUM(B)	MRSSHORT		FASTR1	40	5	1	Dither 1	4	20	2264.433	175686
	3		IMAGER	F1000W	FASTR1	8	2	1	Dither 1	4	8	188.703	175686
	3	LONG(C)	MRSLONG		FASTR1	40	5	1	Dither 1	4	20	2264.433	175686
	3	LONG(C)	MRSSHORT		FASTR1	40	5	1	Dither 1	4	20	2264.433	175686