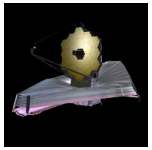

5474 - Revealing New Chemistry in Dusty Extrasolar Atmospheres

Cycle: 3, Proposal Category: GO

INVESTIGATORS

Name	*Institution*
Dr. Genaro Suarez (PI)	**American Museum of Natural History**
Dr. Jacqueline Kelly Faherty (CoI)	American Museum of Natural History
Prof. Stanimir A. Metchev (CoI) (CSA Member) (CoPI)	The University of Western Ontario
Dr. Johanna Vos (CoI) (ESA Member)	University of Dublin, Trinity College
Dr. Elena Manjavacas (CoI) (ESA Member)	Space Telescope Science Institute - ESA - JWST
Dr. Caroline Morley (CoI)	University of Texas at Austin
Melanie J. Rowland (CoI)	University of Texas at Austin
Dr. Niall Whiteford (CoI)	American Museum of Natural History
Dr. Beth Biller (CoI) (ESA Member)	University of Edinburgh, Institute for Astronomy
Prof. Xi Zhang (CoI)	University of California - Santa Cruz
Dr. Xianyu Tan (CoI)	Shanghai Jiao Tong University
Prof. Kelle L. Cruz (CoI)	City University of New York Hunter College
Dr. Juan Jose Downes (CoI)	Universidad de La Republica Facultad de Ciencias
Dr. Simon Petrus (CoI)	University of Valparaiso
Mr. Austin James Rothermich (CoI)	American Museum of Natural History

OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
0355+11				
	1	0355+11 young silicate-rich	MIRI Medium Resolution Spectroscopy	(1) 2MASSJ03552337+1133437
0501-00				
	2	0501-00 young silicate-rich	MIRI Medium Resolution Spectroscopy	(2) 2MASSJ05012406-0010452

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
0501-00				
	11	0501-00 young silicate-rich	MIRI Medium Resolution Spectroscopy	(2) 2MASSJ05012406-0010452
1425-36				
	3	1425-36 young silicate-rich	MIRI Medium Resolution Spectroscopy	(3) 2MASSJ14252798-3650229
0004-40				
	4	0004-40 old silicate-rich	MIRI Medium Resolution Spectroscopy	(4) 2MASSJ00043484-4044058
0144-07				
	5	0144-07 old silicate-rich	MIRI Medium Resolution Spectroscopy	(5) 2MASSJ01443536-0716142
2224-01				
	7	2224-01 old silicate-rich	MIRI Medium Resolution Spectroscopy	(7) 2MASSJ22244381-0158521
0700+31				
	8	0700+31 old silicate-poor	MIRI Medium Resolution Spectroscopy	(8) 2MASSJ07003664+3157266
1126-50				
	9	1126-50 old silicate-poor	MIRI Medium Resolution Spectroscopy	(9) 2MASSJ11263991-5003550
1515+48				
	10	1515+48 old silicate-poor	MIRI Medium Resolution Spectroscopy	(10) 2MASSJ15150083+4847416

ABSTRACT

Clouds and hazes are crucial components of planetary atmospheres. We will obtain MIRI MRS 5–18 micron R~2000-3700 spectra of nine young and old cloudy extrasolar atmospheres to i) investigate how dust cloud mineralogy, particle size, and crystallinity depend on surface gravity, and ii) prove the existence of iron-rich silicate clouds in young giant planet analogs. This will shed light on crucial atmospheric processes that are currently lacking in our models to successfully reproduce current and future JWST observations of cloudy atmospheres. JWST MIRI is the only facility able to provide the necessary observations. The low-SNR of most Spitzer IRS mid-infrared spectra of substellar atmospheres prevents the proposed study.

OBSERVING DESCRIPTION

We propose to use MIRI MRS to obtain mid-infrared intermediate-resolution spectra of nine young and old brown to investigate the complexity of cloud composition in their atmospheres.

Our targets have WISE W3 magnitudes between 9.3 and 11.6 mag. We will use MIRI MRS with the all three grating settings, FULL subarray, FAST1 readout pattern, 50-300 groups per integration, one-to-two integrations per exposure, and two dither positions to obtain 5-18 micron R~2000-3700 spectra with SNR>50 at 13 micron with exposure times between 14 and 167 minutes. For target acquisition, we will use the F1000W filter, the corresponding acquisition mode for MRS, a FULL subarray, a FAST readout pattern, and four groups, which leads to SNR>250 for all targets. There are no special requirements for these observations.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	2MASSJ03552337+1133437	RA: 03 55 23.6170 (58.8484042d) Dec: +11 33 33.70 (11.55936d) Equinox: J2000	Proper Motion RA: 223.182 mas/yr Proper Motion Dec: -631.303 mas/yr Epoch of Position: 2016	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).* *Category=Star* *Description=[Brown dwarfs, L dwarfs]* *Extended=NO*				
(2)	2MASSJ05012406-0010452	RA: 05 01 24.2890 (75.3512042d) Dec: -00 10 47.91 (-.17998d) Equinox: J2000	Proper Motion RA: 190.356 mas/yr Proper Motion Dec: -144.862 mas/yr Epoch of Position: 2016	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).* *Category=Star* *Description=[Brown dwarfs, L dwarfs]* *Extended=NO*				
(3)	2MASSJ14252798-3650229	RA: 14 25 27.6050 (216.3650208d) Dec: -36 50 30.76 (-36.84188d) Equinox: J2000	Proper Motion RA: -285.058 mas/yr Proper Motion Dec: -469.446 mas/yr Epoch of Position: 2016	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).* *Category=Star* *Description=[Brown dwarfs, L dwarfs]* *Extended=NO*				
(4)	2MASSJ00043484-4044058	RA: 00 04 35.8090 (1.1492042d) Dec: -40 44 30.43 (-40.74179d) Equinox: J2000	Proper Motion RA: 668.888 mas/yr Proper Motion Dec: -1498.236 mas/yr Epoch of Position: 2016	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).* *Category=Star* *Description=[Brown dwarfs, L dwarfs]* *Extended=NO*				
(5)	2MASSJ01443536-0716142	RA: 01 44 35.8180 (26.1492417d) Dec: -07 16 17.46 (-7.27152d) Equinox: J2000	Proper Motion RA: 382.252 mas/yr Proper Motion Dec: -196.609 mas/yr Epoch of Position: 2016	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).* *Category=Star* *Description=[Brown dwarfs, L dwarfs]* *Extended=NO*				
(7)	2MASSJ22244381-0158521	RA: 22 24 44.3550 (336.1848125d) Dec: -01 59 7.26 (-1.98535d) Equinox: J2000	Proper Motion RA: 471.637 mas/yr Proper Motion Dec: -873.684 mas/yr Epoch of Position: 2016	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).* *Category=Star* *Description=[Brown dwarfs, L dwarfs]* *Extended=NO*				

(8)	2MASSJ07003664+3157266	RA: 07 00 36.8320 (105.1534667d)	Proper Motion RA: 86.704 mas/yr
		Dec: +31 57 16.67 (31.95463d)	Proper Motion Dec: -549.714 mas/yr
		Equinox: J2000	Epoch of Position: 2016

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).
Category=Star
Description=[Brown dwarfs, L dwarfs]
Extended=NO

(9)	2MASSJ11263991-5003550	RA: 11 26 37.1630 (171.6548458d)	Proper Motion RA: -1589.907 mas/yr
		Dec: -50 03 47.64 (-50.06323d)	Proper Motion Dec: 450.777 mas/yr
		Equinox: J2000	Epoch of Position: 2016

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).
Category=Star
Description=[Brown dwarfs, L dwarfs]
Extended=NO

(10)	2MASSJ15150083+4847416	RA: 15 14 59.3330 (228.7472208d)	Proper Motion RA: -938.044 mas/yr
		Dec: +48 48 4.72 (48.80131d)	Proper Motion Dec: 1464.63 mas/yr
		Equinox: J2000	Epoch of Position: 2016

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).
Category=Star
Description=[Brown dwarfs, L dwarfs]
Extended=NO

Observation

Proposal 5474, Observation 1: 0355+11 young silicate-rich

Fri Feb 07 21:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution 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
(1)	2MASSJ03552337+1133437	RA: 03 55 23.6170 (58.8484042d)	Proper Motion RA: 223.182 mas/yr	
		Dec: +11 33 33.70 (11.55936d)	Proper Motion Dec: -631.303 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).
Category=Star
Description=[Brown dwarfs, L dwarfs]
Extended=NO

Acquisition

#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	1 2MASSJ03552337+1133437	F1000W	FAST	4	1	1	11.1	169884

Template

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

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	POINT 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	SHORT(A)	MRSLONG		FASTR1	24	1	1	Dither 1	4	4	266.404	215693
1	SHORT(A)	MRSSHORT		FASTR1	24	1	1	Dither 1	4	4	266.404	215693
2	MEDIUM(B)	MRSLONG		FASTR1	24	1	1	Dither 1	4	4	266.404	215693
2	MEDIUM(B)	MRSSHORT		FASTR1	24	1	1	Dither 1	4	4	266.404	215693
3	LONG(C)	MRSLONG		FASTR1	24	1	1	Dither 1	4	4	266.404	215693
3	LONG(C)	MRSSHORT		FASTR1	24	1	1	Dither 1	4	4	266.404	215693

Observation

Proposal 5474, Observation 2: 0501-00 young silicate-rich

Fri Feb 07 21:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution 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)	2MASSJ05012406-0010452	RA: 05 01 24.2890 (75.3512042d)	Proper Motion RA: 190.356 mas/yr	
		Dec: -00 10 47.91 (-.17998d)	Proper Motion Dec: -144.862 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).
Category=Star
Description=[Brown dwarfs, L dwarfs]
Extended=NO

Acquisition

#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	2 2MASSJ05012406-0010452	F1000W	FAST	4	1	1	11.1	172087

Template

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

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	POINT 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	SHORT(A)	MRSLONG		SLOWR1	13	1	1	Dither 1	4	4	1242.276	215697
1	SHORT(A)	MRSSHORT		SLOWR1	13	1	1	Dither 1	4	4	1242.276	215697
2	MEDIUM(B)	MRSLONG		SLOWR1	13	1	1	Dither 1	4	4	1242.276	215697
2	MEDIUM(B)	MRSSHORT		SLOWR1	13	1	1	Dither 1	4	4	1242.276	215697
3	LONG(C)	MRSLONG		SLOWR1	13	1	1	Dither 1	4	4	1242.276	215697
3	LONG(C)	MRSSHORT		SLOWR1	13	1	1	Dither 1	4	4	1242.276	215697

Observation

Proposal 5474, Observation 11: 0501-00 young silicate-rich

Fri Feb 07 21:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

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
(2)	2MASSJ05012406-0010452	RA: 05 01 24.2890 (75.3512042d)	Proper Motion RA: 190.356 mas/yr	
		Dec: -00 10 47.91 (-.17998d)	Proper Motion Dec: -144.862 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).
Category=Star
Description=[Brown dwarfs, L dwarfs]
Extended=NO

Acquisition

#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	2 2MASSJ05012406-0010452	F1000W	FAST	4	1	1	11.1	172087

Template

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

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	POINT 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	SHORT(A)	MRSLONG		SLOWR1	13	1	1	Dither 1	4	4	1242.276	215697
1	SHORT(A)	MRSSHORT		SLOWR1	13	1	1	Dither 1	4	4	1242.276	215697
2	MEDIUM(B)	MRSLONG		SLOWR1	13	1	1	Dither 1	4	4	1242.276	215697
2	MEDIUM(B)	MRSSHORT		SLOWR1	13	1	1	Dither 1	4	4	1242.276	215697
3	LONG(C)	MRSLONG		SLOWR1	13	1	1	Dither 1	4	4	1242.276	215697
3	LONG(C)	MRSSHORT		SLOWR1	13	1	1	Dither 1	4	4	1242.276	215697

Observation

Proposal 5474, Observation 3: 1425-36 young silicate-rich Fri Feb 07 21:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution 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
(3)	2MASSJ14252798-3650229	RA: 14 25 27.6050 (216.3650208d)	Proper Motion RA: -285.058 mas/yr	
		Dec: -36 50 30.76 (-36.84188d)	Proper Motion Dec: -469.446 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).
Category=Star
Description=[Brown dwarfs, L 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	172088

Template

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

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	POINT 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	LONG(C)	MRSLONG		SLOWR1	7	1	1	Dither 1	4	4	668.918	215699
1	LONG(C)	MRSSHORT		SLOWR1	7	1	1	Dither 1	4	4	668.918	215699
2	MEDIUM(B)	MRSLONG		SLOWR1	7	1	1	Dither 1	4	4	668.918	215699
2	MEDIUM(B)	MRSSHORT		SLOWR1	7	1	1	Dither 1	4	4	668.918	215699
3	SHORT(A)	MRSLONG		SLOWR1	7	1	1	Dither 1	4	4	668.918	215699
3	SHORT(A)	MRSSHORT		SLOWR1	7	1	1	Dither 1	4	4	668.918	215699

Observation

Proposal 5474, Observation 4: 0004-40 old silicate-rich Fri Feb 07 21:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution 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
(4)	2MASSJ00043484-4044058	RA: 00 04 35.8090 (1.1492042d)	Proper Motion RA: 668.888 mas/yr	
		Dec: -40 44 30.43 (-40.74179d)	Proper Motion Dec: -1498.236 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).
Category=Star
Description=[Brown dwarfs, L 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	172092

Template

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

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	POINT 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	SHORT(A)	MRSLONG		FASTR1	36	1	1	Dither 1	4	4	399.606	215700
1	SHORT(A)	MRSSHORT		FASTR1	36	1	1	Dither 1	4	4	399.606	215700
2	MEDIUM(B)	MRSLONG		FASTR1	36	1	1	Dither 1	4	4	399.606	215700
2	MEDIUM(B)	MRSSHORT		FASTR1	36	1	1	Dither 1	4	4	399.606	215700
3	LONG(C)	MRSLONG		FASTR1	36	1	1	Dither 1	4	4	399.606	215700
3	LONG(C)	MRSSHORT		FASTR1	36	1	1	Dither 1	4	4	399.606	215700

Observation

Proposal 5474, Observation 5: 0144-07 old silicate-rich Fri Feb 07 21:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution 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
(5)	2MASSJ01443536-0716142	RA: 01 44 35.8180 (26.1492417d)	Proper Motion RA: 382.252 mas/yr	
		Dec: -07 16 17.46 (-7.27152d)	Proper Motion Dec: -196.609 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).
Category=Star
Description=[Brown dwarfs, L 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	172093

Template

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

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	POINT 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	SHORT(A)	MRSLONG		SLOWR1	14	1	1	Dither 1	4	4	1337.836	215701
1	SHORT(A)	MRSSHORT		SLOWR1	14	1	1	Dither 1	4	4	1337.836	215701
2	MEDIUM(B)	MRSLONG		SLOWR1	14	1	1	Dither 1	4	4	1337.836	215701
2	MEDIUM(B)	MRSSHORT		SLOWR1	14	1	1	Dither 1	4	4	1337.836	215701
3	LONG(C)	MRSLONG		SLOWR1	14	1	1	Dither 1	4	4	1337.836	215701
3	LONG(C)	MRSSHORT		SLOWR1	14	1	1	Dither 1	4	4	1337.836	215701

Observation

Proposal 5474, Observation 7: 2224-01 old silicate-rich Fri Feb 07 21:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution 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)	2MASSJ22244381-0158521	RA: 22 24 44.3550 (336.1848125d)	Proper Motion RA: 471.637 mas/yr	
		Dec: -01 59 7.26 (-1.98535d)	Proper Motion Dec: -873.684 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).
Category=Star
Description=[Brown dwarfs, L 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	172094

Template

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

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	POINT 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	SHORT(A)	MRSLONG		SLOWR1	11	1	1	Dither 1	4	4	1051.156	215702
1	SHORT(A)	MRSSHORT		SLOWR1	11	1	1	Dither 1	4	4	1051.156	215702
2	MEDIUM(B)	MRSLONG		SLOWR1	11	1	1	Dither 1	4	4	1051.156	215702
2	MEDIUM(B)	MRSSHORT		SLOWR1	11	1	1	Dither 1	4	4	1051.156	215702
3	LONG(C)	MRSLONG		SLOWR1	11	1	1	Dither 1	4	4	1051.156	215702
3	LONG(C)	MRSSHORT		SLOWR1	11	1	1	Dither 1	4	4	1051.156	215702

Observation

Proposal 5474, Observation 8: 0700+31 old silicate-poor Fri Feb 07 21:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(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)	2MASSJ07003664+3157266	RA: 07 00 36.8320 (105.1534667d)	Proper Motion RA: 86.704 mas/yr	
		Dec: +31 57 16.67 (31.95463d)	Proper Motion Dec: -549.714 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).
Category=Star
Description=[Brown dwarfs, L 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	172095

Template

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

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	POINT 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	SHORT(A)	MRSLONG		FASTR1	35	1	1	Dither 1	4	4	388.506	215703
1	SHORT(A)	MRSSHORT		FASTR1	35	1	1	Dither 1	4	4	388.506	215703
2	MEDIUM(B)	MRSLONG		FASTR1	35	1	1	Dither 1	4	4	388.506	215703
2	MEDIUM(B)	MRSSHORT		FASTR1	35	1	1	Dither 1	4	4	388.506	215703
3	LONG(C)	MRSLONG		FASTR1	35	1	1	Dither 1	4	4	388.506	215703
3	LONG(C)	MRSSHORT		FASTR1	35	1	1	Dither 1	4	4	388.506	215703

Observation

Proposal 5474, Observation 9: 1126-50 old silicate-poor

Fri Feb 07 21:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(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)	2MASSJ11263991-5003550	RA: 11 26 37.1630 (171.6548458d)	Proper Motion RA: -1589.907 mas/yr	
		Dec: -50 03 47.64 (-50.06323d)	Proper Motion Dec: 450.777 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).
Category=Star
Description=[Brown dwarfs, L 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	172096

Template

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

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	POINT 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	SHORT(A)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	215705
1	SHORT(A)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	215705
2	MEDIUM(B)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	215705
2	MEDIUM(B)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	215705
3	LONG(C)	MRSLONG		SLOWR1	22	1	1	Dither 1	4	4	2102.313	215705
3	LONG(C)	MRSSHORT		SLOWR1	22	1	1	Dither 1	4	4	2102.313	215705

Observation

Proposal 5474, Observation 10: 1515+48 old silicate-poor

Fri Feb 07 21:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

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)	2MASSJ15150083+4847416	RA: 15 14 59.3330 (228.7472208d)	Proper Motion RA: -938.044 mas/yr	
		Dec: +48 48 4.72 (48.80131d)	Proper Motion Dec: 1464.63 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Coordinates and proper motion were updated to Gaia DR3 (epoch 2016).
Category=Star
Description=[Brown dwarfs, L 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	172099

Template

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

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	POINT 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	SHORT(A)	MRSLONG		SLOWR1	9	1	1	Dither 1	4	4	860.037	215706
1	SHORT(A)	MRSSHORT		SLOWR1	9	1	1	Dither 1	4	4	860.037	215706
2	MEDIUM(B)	MRSLONG		SLOWR1	9	1	1	Dither 1	4	4	860.037	215706
2	MEDIUM(B)	MRSSHORT		SLOWR1	9	1	1	Dither 1	4	4	860.037	215706
3	LONG(C)	MRSLONG		SLOWR1	9	1	1	Dither 1	4	4	860.037	215706
3	LONG(C)	MRSSHORT		SLOWR1	9	1	1	Dither 1	4	4	860.037	215706