



3960 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Cycle: 2, Proposal Category: GO

INVESTIGATORS

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OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
NIRSpec IFU				
	1	UGCA 410A	NIRSpec IFU Spectroscopy	(1) UGCA-410A
	2	MRK-1450	NIRSpec IFU Spectroscopy	(2) MRK-1450
	3	IRAS 11485-2018	NIRSpec IFU Spectroscopy	(3) IRAS11485-2018
	4	SBS 1533+574B	NIRSpec IFU Spectroscopy	(4) SBS-1533+574B
	5	WR 140 C1	NIRSpec IFU Spectroscopy	(5) WR-140-C1
MIRI MRS				
	6	UGCA 410A	MIRI Medium Resolution Spectroscopy	(10) UGCA-410A-MRS
	10	UGCA 410A-BKG	MIRI Medium Resolution Spectroscopy	(6) UGCA-410A-BKG
	7	MRK-1450	MIRI Medium Resolution Spectroscopy	(11) MRK-1450-MRS
	14	MRK-1450-REPEAT	MIRI Medium Resolution Spectroscopy	(11) MRK-1450-MRS
	11	MRK-1450-BKG	MIRI Medium Resolution Spectroscopy	(9) MRK-1450-BKG

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
	15	MRK-1450-BKG-REP EAT	MIRI Medium Resolution Spectroscopy	(9) MRK-1450-BKG
	8	IRAS 11485-2018	MIRI Medium Resolution Spectroscopy	(12) IRAS11485-2018-MRS
	12	IRAS 11485-2018-BK G	MIRI Medium Resolution Spectroscopy	(7) IRAS11485-2018-BKG
	9	SBS 1533+574B	MIRI Medium Resolution Spectroscopy	(13) SBS-1533+574B-MRS
	13	SBS 1533+574B-BKG	MIRI Medium Resolution Spectroscopy	(8) SBS-1533+574B-BKG

ABSTRACT

Polycyclic aromatic hydrocarbons (PAHs) are small dust grains that play a fundamental role in the physical and chemical conditions of the interstellar medium (ISM), from photo-electric heating of interstellar gas to the formation of molecular hydrogen molecules. Their emission in the mid-infrared scales with the interstellar radiation field (ISRF) and as such they are routinely used as tracers of recent star formation out to high redshift. The interplay between grain properties and ISM conditions is complex and poorly understood, however. We propose to observe several PAH features in four local compact dwarf galaxies and a Wolf-Rayet binary system with the NIRSpec and MIRI IFUs. These targets are unique in having low metallicities and extreme ISRFs (as measured by forbidden line ratios) and will provide the definitive test of whether extreme ISM conditions destroy or enhance small grains. Comparisons with sources from the literature with low metallicities and moderate ISRFs will determine the drivers of changing grain properties. This work, only possible with the sensitivity and resolution of JWST, will be the benchmark for studies of high redshift galaxies, which have increasingly strong radiation fields and low metallicities.

OBSERVING DESCRIPTION

This proposal will observe the mid-infrared spectrum (3-25 μ m) of four local, compact dwarf galaxies with low metallicities and extreme interstellar radiation fields, as determined by mid-infrared forbidden line ratios from Spitzer/IRS, using NIRSpec and MIRI IFU. In addition, we will observe WR 140, a Wolf-Rayet binary star that is the target of Cycle 1 program (ERS 1349) to obtain MIRI/MRS spectroscopy. We will add in NIRSpec coverage of the 3.3 μ m PAH feature, a robust tracer of average grain size.

MIRI/MRS IFU with full wavelength coverage will be obtained for the four compact dwarf galaxies (UGCA 410A, Mrk 1450, IRAS 11485-2018, and SBS 1533+574B) to detect several PAH features. A standard 4 point, extended dither will be used and dedicated backgrounds will be obtained to mitigate transient detector artifacts, cosmic rays, and background noise.

NIRSpec IFU will be obtained for the four galaxies and WR 140. As the targets are all of order 1" or less in size, pixel-to-pixel background

subtraction will be done using pixel outside the targets. No TA will be done for MRS or NIRSpec IFU as the blind pointing accuracy is sufficient to center our targets.

Proposal 3960 - Targets - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	UGCA-410A	RA: 15 37 4.1910 (234.2674625d) Dec: +55 15 48.26 (55.26341d) Equinox: J2000		
<p><i>Comments:</i> Category=Galaxy Description=[Compact galaxies]</p>				
(2)	MRK-1450	RA: 11 38 35.6603 (174.6485846d) Dec: +57 52 26.73 (57.87409d) Equinox: J2000	Proper Motion RA: 3.260737134394704E-4 sec of time/yr	Proper Motion Dec: 0.005785999999999995 arcsec/yr Epoch of Position: 2015.5
<p><i>Comments:</i> This object was generated by the targetselector and retrieved from the SIMBAD database. Category=Galaxy Description=[Blue compact dwarf galaxies]</p>				
(3)	IRAS11485-2018	RA: 11 51 11.7000 (177.7987500d) Dec: -20 35 56.00 (-20.59889d) Equinox: J2000	Epoch of Position: 2015.5	
<p><i>Comments:</i> This object was generated by the targetselector and retrieved from the SIMBAD database. Category=Galaxy Description=[Blue compact dwarf galaxies]</p>				
(4)	SBS-1533+574B	RA: 15 34 14.1630 (233.5590125d) Dec: +57 17 3.48 (57.28430d) Equinox: J2000		
<p><i>Comments:</i> Category=Galaxy Description=[Blue compact dwarf galaxies]</p>				
(5)	WR-140-C1	RA: 20 20 27.6711 (305.1152962d) Dec: +43 51 12.47 (43.85346d) Equinox: J2000		
<p><i>Comments:</i> This target is WR-140-C1 Shell 2. Original coordinates: 20 20 27.6570 +43 51 12.97. Category=Star Description=[Wolf-Rayet stars]</p>				
(6)	UGCA-410A-BKG	RA: 15 36 59.7342 (234.2488925d) Dec: +55 15 49.95 (55.26387d) Equinox: J2000		
<p><i>Comments:</i> Category=Galaxy Description=[Compact galaxies]</p>				
(7)	IRAS11485-2018-BKG	RA: 11 51 14.1036 (177.8087650d) Dec: -20 35 43.40 (-20.59539d) Equinox: J2000	Epoch of Position: 2015.5	
<p><i>Comments:</i> This object was generated by the targetselector and retrieved from the SIMBAD database. Category=Galaxy Description=[Blue compact dwarf galaxies]</p>				

Fixed Targets

Proposal 3960 - Targets - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

(8)	SBS-1533+574B-BKG	RA: 15 34 8.8475 (233.5368646d) Dec: +57 17 21.70 (57.28936d) Equinox: J2000	
<p><i>Comments:</i> Category=Galaxy Description=[Blue compact dwarf galaxies]</p>			
(9)	MRK-1450-BKG	RA: 11 38 30.4702 (174.6269592d) Dec: +57 52 26.72 (57.87409d) Equinox: J2000	Proper Motion RA: 3.260737134394704E-4 sec of time/yr Proper Motion Dec: 0.005785999999999995 arcsec/yr Epoch of Position: 2015.5
<p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Galaxy Description=[Blue compact dwarf galaxies]</p>			
(10)	UGCA-410A-MRS	RA: 15 37 4.1910 (234.2674625d) Dec: +55 15 48.26 (55.26341d) Equinox: J2000	
<p><i>Comments:</i> Category=Galaxy Description=[Compact galaxies]</p>			
(11)	MRK-1450-MRS	RA: 11 38 35.6603 (174.6485846d) Dec: +57 52 26.73 (57.87409d) Equinox: J2000	Proper Motion RA: 3.260737134394704E-4 sec of time/yr Proper Motion Dec: 0.005785999999999995 arcsec/yr Epoch of Position: 2015.5
<p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Galaxy Description=[Blue compact dwarf galaxies]</p>			
(12)	IRAS11485-2018-MRS	RA: 11 51 11.7000 (177.7987500d) Dec: -20 35 56.00 (-20.59889d) Equinox: J2000	Epoch of Position: 2015.5
<p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Galaxy Description=[Blue compact dwarf galaxies]</p>			
(13)	SBS-1533+574B-MRS	RA: 15 34 14.1630 (233.5590125d) Dec: +57 17 3.48 (57.28430d) Equinox: J2000	
<p><i>Comments:</i> Category=Galaxy Description=[Blue compact dwarf galaxies]</p>			

Proposal 3960 - Observation 1 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	<p>Proposal 3960, Observation 1: UGCA 410A</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSpec IFU Spectroscopy</p>											
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)	UGCA-410A	RA: 15 37 4.1910 (234.2674625d) Dec: +55 15 48.26 (55.26341d) Equinox: J2000									
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=/Compact galaxies]</i></p>											
Template	TA Method											
	NONE											
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	G395H/F290LP	NRSIRS2RAPID	6	2	false	true	NONE	4	8	816.978	

Proposal 3960 - Observation 2 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	<p>Proposal 3960, Observation 2: MRK-1450</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSspec IFU Spectroscopy</p>											
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)	MRK-1450	RA: 11 38 35.6603 (174.6485846d) Dec: +57 52 26.73 (57.87409d) Equinox: J2000			Proper Motion RA: 3.260737134394704E-4 sec of time/yr Proper Motion Dec: 0.005785999999999995 arcsec/yr Epoch of Position: 2015.5						
	<p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i></p> <p><i>Category=Galaxy</i></p> <p><i>Description=[Blue compact dwarf galaxies]</i></p>											
Template	TA Method											
	NONE											
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	G395H/F290LP	NRSIRS2RAPID	6	2	false	true	NONE	4	8	816.978	

Proposal 3960 - Observation 3 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	<p>Proposal 3960, Observation 3: IRAS 11485-2018</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSspec IFU Spectroscopy</p>											
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)	IRAS11485-2018	RA: 11 51 11.7000 (177.7987500d) Dec: -20 35 56.00 (-20.59889d) Equinox: J2000			Epoch of Position: 2015.5						
	<p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i></p> <p><i>Category=Galaxy</i></p> <p><i>Description=Blue compact dwarf galaxies</i></p>											
Template	TA Method											
	NONE											
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	G395H/F290LP	NRSIRS2RAPID	6	2	false	true	NONE	4	8	816.978	

Proposal 3960 - Observation 4 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	<p>Proposal 3960, Observation 4: SBS 1533+574B</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSpec IFU Spectroscopy</p>											
Diagnostics	(Visit 4:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.											
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous			
	(4)	SBS-1533+574B	RA: 15 34 14.1630 (233.5590125d) Dec: +57 17 3.48 (57.28430d) Equinox: J2000									
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=Blue compact dwarf galaxies</i></p>											
Template	TA Method											
	NONE											
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	G395H/F290LP	NRSIRS2RAPID	4	3	false	true	NONE	4	12	875.333	

Proposal 3960 - Observation 5 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	<p>Proposal 3960, Observation 5: WR 140 C1</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSpec IFU Spectroscopy</p>											
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)	WR-140-C1	RA: 20 20 27.6711 (305.1152962d) Dec: +43 51 12.47 (43.85346d) Equinox: J2000									
	<p><i>Comments: This target is WR-140-C1 Shell 2.</i></p> <p><i>Original coordinates: 20 20 27.6570 +43 51 12.97.</i></p> <p><i>Category=Star</i></p> <p><i>Description=[Wolf-Ravet stars]</i></p>											
Template	TA Method											
	NONE											
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	G395H/F290LP	NRSIRS2RAPID	4	3	false	true	NONE	4	12	875.333	

Proposal 3960 - Observation 6 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	Proposal 3960, Observation 6: UGCA 410A Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy Background Observations:[UGCA 410A-BKG (Obs 10)]												
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			
	(10)	UGCA-410A-MRS	RA: 15 37 4.1910 (234.2674625d) Dec: +55 15 48.26 (55.26341d) Equinox: J2000										
	Comments: Category=Galaxy Description=[Compact galaxies]												
Acquisition	#	Target											
	1	NONE											
Template	AcqFilter	Primary Channel			Simultaneous Imaging			Imager Subarray		Grating Wheel Direction			
		All MRS			NO			FULL		NEUTRAL			
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	SHORT(A)	MRSLONG	FASTR1	50	1	1	Dither 1	4	4	555.008	
		1	SHORT(A)	MRSSHORT	FASTR1	50	1	1	Dither 1	4	4	555.008	
		2	MEDIUM(B)	MRSLONG	FASTR1	50	1	1	Dither 1	4	4	555.008	
		2	MEDIUM(B)	MRSSHORT	FASTR1	50	1	1	Dither 1	4	4	555.008	
		3	LONG(C)	MRSLONG	FASTR1	50	1	1	Dither 1	4	4	555.008	
		3	LONG(C)	MRSSHORT	FASTR1	50	1	1	Dither 1	4	4	555.008	

Proposal 3960 - Observation 6 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Special Requirements

Sequence Observations 6, 10, Non-interruptible

Proposal 3960 - Observation 10 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	Proposal 3960, Observation 10: UGCA 410A-BKG Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy Background Observation For: [UGCA 410A (Obs 6)]												
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			
	(6)	UGCA-410A-BKG	RA: 15 36 59.7342 (234.2488925d) Dec: +55 15 49.95 (55.26387d) Equinox: J2000										
	<i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[Compact galaxies]</i>												
Acquisition	#											Target	
	1											NONE	
Template	AcqFilter	Primary Channel				Simultaneous Imaging			Imager Subarray		Grating Wheel Direction		
		All MRS				NO			FULL		NEUTRAL		
Dithers	#	Dither Type				Optimized For			Direction				
	1	4-Point				POINT SOURCE			NEGATIVE				
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/E xp	Exposures/Dit h	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SHORT(A)	MRSLONG		FASTR1	50	1	1	None	1	1	138.752	
	1	SHORT(A)	MRSSHORT		FASTR1	50	1	1	None	1	1	138.752	
	2	MEDIUM(B)	MRSLONG		FASTR1	50	1	1	None	1	1	138.752	
	2	MEDIUM(B)	MRSSHORT		FASTR1	50	1	1	None	1	1	138.752	
	3	LONG(C)	MRSLONG		FASTR1	50	1	1	None	1	1	138.752	
	3	LONG(C)	MRSSHORT		FASTR1	50	1	1	None	1	1	138.752	

Proposal 3960 - Observation 10 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Special Requirements

Sequence Observations 6, 10, Non-interruptible

Proposal 3960 - Observation 7 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	Proposal 3960, Observation 7: MRK-1450 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy Background Observations:[MRK-1450-BKG (Obs 11)]												
	(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections				Miscellaneous				
	(11)	MRK-1450-MRS	RA: 11 38 35.6603 (174.6485846d) Dec: +57 52 26.73 (57.87409d) Equinox: J2000		Proper Motion RA: 3.260737134394704E-4 sec of time/yr Proper Motion Dec: 0.005785999999999995 arcsec/yr Epoch of Position: 2015.5								
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Galaxy Description=[Blue compact dwarf galaxies]													
Acquisition	#	Target											
	1	NONE											
Template	AcqFilter	Primary Channel		Simultaneous Imaging		Imager Subarray		Grating Wheel Direction					
		All MRS		NO		FULL		NEUTRAL					
Dithers	#	Dither Type			Optimized For				Direction				
	1	4-Point			EXTENDED SOURCE				NEGATIVE				
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/E xp	Exposures/Dit h	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SHORT(A)	MRSLONG		FASTR1	127	1	1	Dither 1	4	4	1409.72	
	1	SHORT(A)	MRSSHORT		FASTR1	127	1	1	Dither 1	4	4	1409.72	
	2	MEDIUM(B)	MRSLONG		FASTR1	127	1	1	Dither 1	4	4	1409.72	
	2	MEDIUM(B)	MRSSHORT		FASTR1	127	1	1	Dither 1	4	4	1409.72	
	3	LONG(C)	MRSLONG		FASTR1	127	1	1	Dither 1	4	4	1409.72	
	3	LONG(C)	MRSSHORT		FASTR1	127	1	1	Dither 1	4	4	1409.72	

Proposal 3960 - Observation 7 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Special Requirements

Sequence Observations 7, 11, Non-interruptible

Proposal 3960 - Observation 14 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	Proposal 3960, Observation 14: MRK-1450-REPEAT Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy Background Observations:[MRK-1450-BKG-REPEAT (Obs 15)]												
	(Visit 14:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous				
	(11)	MRK-1450-MRS	RA: 11 38 35.6603 (174.6485846d) Dec: +57 52 26.73 (57.87409d) Equinox: J2000			Proper Motion RA: 3.260737134394704E-4 sec of time/yr Proper Motion Dec: 0.005785999999999995 arcsec/yr Epoch of Position: 2015.5							
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Galaxy Description=[Blue compact dwarf galaxies]													
Acquisition	#	Target											
	1	NONE											
Template	AcqFilter	Primary Channel			Simultaneous Imaging		Imager Subarray		Grating Wheel Direction				
		All MRS			NO		FULL		NEUTRAL				
Dithers	#	Dither Type			Optimized For			Direction					
	1	4-Point			EXTENDED SOURCE			NEGATIVE					
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/E xp	Exposures/Dit h	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SHORT(A)	MRSLONG		FASTR1	127	1	1	Dither 1	4	4	1409.72	
	1	SHORT(A)	MRSSHORT		FASTR1	127	1	1	Dither 1	4	4	1409.72	
	2	MEDIUM(B)	MRSLONG		FASTR1	127	1	1	Dither 1	4	4	1409.72	
	2	MEDIUM(B)	MRSSHORT		FASTR1	127	1	1	Dither 1	4	4	1409.72	
	3	LONG(C)	MRSLONG		FASTR1	127	1	1	Dither 1	4	4	1409.72	
	3	LONG(C)	MRSSHORT		FASTR1	127	1	1	Dither 1	4	4	1409.72	

Proposal 3960 - Observation 14 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Special Requirements

Sequence Observations 14, 15, Non-interruptible

Proposal 3960 - Observation 11 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	Proposal 3960, Observation 11: MRK-1450-BKG Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy Background Observation For: [MRK-1450 (Obs 7)]												
	(Visit 11:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections				Miscellaneous				
	(9)	MRK-1450-BKG	RA: 11 38 30.4702 (174.6269592d) Dec: +57 52 26.72 (57.87409d) Equinox: J2000		Proper Motion RA: 3.260737134394704E-4 sec of time/yr Proper Motion Dec: 0.005785999999999995 arcsec/yr Epoch of Position: 2015.5								
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Galaxy Description=[Blue compact dwarf galaxies]													
Acquisition	#	Target											
	1	NONE											
Template	AcqFilter	Primary Channel		Simultaneous Imaging		Imager Subarray		Grating Wheel Direction					
		All MRS		NO		FULL		NEUTRAL					
Dithers	#	Dither Type			Optimized For				Direction				
	1	4-Point			EXTENDED SOURCE				NEGATIVE				
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/E xp	Exposures/Dit h	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SHORT(A)	MRSLONG		FASTR1	127	1	1	None	1	1	352.43	
	1	SHORT(A)	MRSSHORT		FASTR1	127	1	1	None	1	1	352.43	
	2	MEDIUM(B)	MRSLONG		FASTR1	127	1	1	None	1	1	352.43	
	2	MEDIUM(B)	MRSSHORT		FASTR1	127	1	1	None	1	1	352.43	
	3	LONG(C)	MRSLONG		FASTR1	127	1	1	None	1	1	352.43	
	3	LONG(C)	MRSSHORT		FASTR1	127	1	1	None	1	1	352.43	

Proposal 3960 - Observation 11 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Special Requirements

Sequence Observations 7, 11, Non-interruptible

Proposal 3960 - Observation 15 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	Proposal 3960, Observation 15: MRK-1450-BKG-REPEAT Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy Background Observation For: [MRK-1450-REPEAT (Obs 14)]												
	(Visit 15:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Fixed Targets	#	Name	Target Coordinates				Targ. Coord. Corrections			Miscellaneous			
	(9)	MRK-1450-BKG	RA: 11 38 30.4702 (174.6269592d) Dec: +57 52 26.72 (57.87409d) Equinox: J2000				Proper Motion RA: 3.260737134394704E-4 sec of time/yr Proper Motion Dec: 0.00578599999999995 arcsec/yr Epoch of Position: 2015.5						
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Galaxy Description=[Blue compact dwarf galaxies]													
Acquisition	#	Target											
	1	NONE											
Template	AcqFilter	Primary Channel			Simultaneous Imaging			Imager Subarray		Grating Wheel Direction			
		All MRS			NO			FULL		NEUTRAL			
Dithers	#	Dither Type				Optimized For				Direction			
	1	4-Point				EXTENDED SOURCE				NEGATIVE			
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/E xp	Exposures/Dit h	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SHORT(A)	MRSLONG		FASTR1	127	1	1	None	1	1	352.43	
	1	SHORT(A)	MRSSHORT		FASTR1	127	1	1	None	1	1	352.43	
	2	MEDIUM(B)	MRSLONG		FASTR1	127	1	1	None	1	1	352.43	
	2	MEDIUM(B)	MRSSHORT		FASTR1	127	1	1	None	1	1	352.43	
	3	LONG(C)	MRSLONG		FASTR1	127	1	1	None	1	1	352.43	
	3	LONG(C)	MRSSHORT		FASTR1	127	1	1	None	1	1	352.43	

Proposal 3960 - Observation 15 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Special Requirements

Sequence Observations 14, 15, Non-interruptible

Proposal 3960 - Observation 8 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	Proposal 3960, Observation 8: IRAS 11485-2018 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy Background Observations:[IRAS 11485-2018-BKG (Obs 12)]												
	(Visit 8:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Diagnosics													
Fixed Targets	#	Name	Target Coordinates				Targ. Coord. Corrections			Miscellaneous			
	(12)	IRAS11485-2018-MRS	RA: 11 51 11.7000 (177.7987500d) Dec: -20 35 56.00 (-20.59889d) Equinox: J2000				Epoch of Position: 2015.5						
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> <i>Category=Galaxy</i> <i>Description=Blue compact dwarf galaxies</i>													
Acquisition	#											Target	
	1											NONE	
Template	AcqFilter	Primary Channel				Simultaneous Imaging			Imager Subarray		Grating Wheel Direction		
		All MRS				NO			FULL		NEUTRAL		
Dithers	#	Dither Type				Optimized For				Direction			
	1	4-Point				EXTENDED SOURCE				NEGATIVE			
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/E xp	Exposures/Dit h	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	LONG(C)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
	1	LONG(C)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	
	2	MEDIUM(B)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
	2	MEDIUM(B)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	
	3	SHORT(A)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
	3	SHORT(A)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	

Proposal 3960 - Observation 8 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Special Requirements

Sequence Observations 8, 12, Non-interruptible

Proposal 3960 - Observation 12 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	Proposal 3960, Observation 12: IRAS 11485-2018-BKG Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy Background Observation For: [IRAS 11485-2018 (Obs 8)]												
	(Visit 12:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Diagnosics													
Fixed Targets	#	Name	Target Coordinates				Targ. Coord. Corrections			Miscellaneous			
	(7)	IRAS11485-2018-BKG	RA: 11 51 14.1036 (177.8087650d) Dec: -20 35 43.40 (-20.59539d) Equinox: J2000				Epoch of Position: 2015.5						
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> <i>Category=Galaxy</i> <i>Description=Blue compact dwarf galaxies]</i>													
Acquisition	#											Target	
	1											NONE	
Template	AcqFilter	Primary Channel				Simultaneous Imaging			Imager Subarray		Grating Wheel Direction		
		All MRS				NO			FULL		NEUTRAL		
Dithers	#	Dither Type				Optimized For			Direction				
	1	4-Point				EXTENDED SOURCE			NEGATIVE				
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/E xp	Exposures/Dit h	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	LONG(C)	MRSLONG		FASTR1	50	1	1	None	1	1	138.752	
	1	LONG(C)	MRSSHORT		FASTR1	50	1	1	None	1	1	138.752	
	2	MEDIUM(B)	MRSLONG		FASTR1	50	1	1	None	1	1	138.752	
	2	MEDIUM(B)	MRSSHORT		FASTR1	50	1	1	None	1	1	138.752	
	3	SHORT(A)	MRSLONG		FASTR1	50	1	1	None	1	1	138.752	
	3	SHORT(A)	MRSSHORT		FASTR1	50	1	1	None	1	1	138.752	

Proposal 3960 - Observation 12 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Special Requirements

Sequence Observations 8, 12, Non-interruptible

Proposal 3960 - Observation 9 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	Proposal 3960, Observation 9: SBS 1533+574B Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy Background Observations:[SBS 1533+574B-BKG (Obs 13)]												
	(Visit 9:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Diagnosics													
Fixed Targets	#	Name	Target Coordinates				Targ. Coord. Corrections			Miscellaneous			
	(13)	SBS-1533+574B-MRS	RA: 15 34 14.1630 (233.5590125d) Dec: +57 17 3.48 (57.28430d) Equinox: J2000 <i>Comments: Category=Galaxy Description=Blue compact dwarf galaxies</i>										
Acquisition	#	Target											
	1	NONE											
Template	AcqFilter	Primary Channel			Simultaneous Imaging			Imager Subarray		Grating Wheel Direction			
		All MRS			NO			FULL		NEUTRAL			
Dithers	#	Dither Type				Optimized For				Direction			
	1	4-Point				EXTENDED SOURCE				NEGATIVE			
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/E xp	Exposures/Dit h	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SHORT(A)	MRSLONG		FASTR1	80	1	1	Dither 1	4	4	888.013	
	1	SHORT(A)	MRSSHORT		FASTR1	80	1	1	Dither 1	4	4	888.013	
	2	MEDIUM(B)	MRSLONG		FASTR1	80	1	1	Dither 1	4	4	888.013	
	2	MEDIUM(B)	MRSSHORT		FASTR1	80	1	1	Dither 1	4	4	888.013	
	3	LONG(C)	MRSLONG		FASTR1	80	1	1	Dither 1	4	4	888.013	
	3	LONG(C)	MRSSHORT		FASTR1	80	1	1	Dither 1	4	4	888.013	

Proposal 3960 - Observation 9 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Special Requirements

Sequence Observations 9, 13, Non-interruptible

Proposal 3960 - Observation 13 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Tue Jun 11 03:00:19 GMT 2024

Observation	Proposal 3960, Observation 13: SBS 1533+574B-BKG Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy Background Observation For: [SBS 1533+574B (Obs 9)]												
	(Visit 13:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Diagnosics													
Fixed Targets	#	Name	Target Coordinates				Targ. Coord. Corrections			Miscellaneous			
	(8)	SBS-1533+574B-BKG	RA: 15 34 8.8475 (233.5368646d) Dec: +57 17 21.70 (57.28936d) Equinox: J2000 <i>Comments:</i> <i>Category=Galaxy</i> <i>Description=Blue compact dwarf galaxies</i>										
Acquisition	#	Target											
	1	NONE											
Template	AcqFilter	Primary Channel			Simultaneous Imaging			Imager Subarray		Grating Wheel Direction			
		All MRS			NO			FULL		NEUTRAL			
Dithers	#	Dither Type				Optimized For				Direction			
	1	4-Point				EXTENDED SOURCE				NEGATIVE			
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/E xp	Exposures/Dit h	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SHORT(A)	MRSLONG		FASTR1	80	1	1	None	1	1	222.003	
	1	SHORT(A)	MRSSHORT		FASTR1	80	1	1	None	1	1	222.003	
	2	MEDIUM(B)	MRSLONG		FASTR1	80	1	1	None	1	1	222.003	
	2	MEDIUM(B)	MRSSHORT		FASTR1	80	1	1	None	1	1	222.003	
	3	LONG(C)	MRSLONG		FASTR1	80	1	1	None	1	1	222.003	
	3	LONG(C)	MRSSHORT		FASTR1	80	1	1	None	1	1	222.003	

Proposal 3960 - Observation 13 - The Effect of Extreme ISM Conditions on Polycyclic Aromatic Hydrocarbon (PAH) Properties

Special Requirements

Sequence Observations 9, 13, Non-interruptible