



# 5168 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Cycle: 3, Proposal Category: GO

## INVESTIGATORS

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Dr. Martha L. Boyer (CoI)	Space Telescope Science Institute

## OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
SMC				
	1	AzV 456	MIRI Low Resolution Spectroscopy	(1) AZV-456
	2	AzV 18	MIRI Low Resolution Spectroscopy	(2) AZV-18
	3	AzV 23	MIRI Low Resolution Spectroscopy	(3) AZV-23
	4	AzV 175	MIRI Low Resolution Spectroscopy	(4) AZV-175
	5	AzV 210	MIRI Low Resolution Spectroscopy	(5) AZV-210
LMC				
	6	SK -67 2	MIRI Low Resolution Spectroscopy	(6) SK--67-2

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
	7	SK -68 26	MIRI Low Resolution Spectroscopy	(7) SK--68-26
	8	SK -68 129	MIRI Low Resolution Spectroscopy	(8) SK--68-129
	9	SK -70 79	MIRI Low Resolution Spectroscopy	(9) SK--70-79
	10	SK -69 270	MIRI Low Resolution Spectroscopy	(10) SK--69-270
	11	SK -70 116	MIRI Low Resolution Spectroscopy	(11) SK--70-116

## ABSTRACT

We propose to measure the 10 micron silicate extinction feature for a sample of 11 sightlines in the Large and Small Magellanic Clouds that show large variations in dust composition as probed by their ultraviolet extinction properties. These measurements will be the first direct measurements of the properties of interstellar silicates in the diffuse ISM at metallicities below solar. We will investigate the variation in the strength, central wavelength, width, and asymmetry of the feature and compare to variations seen in the Milky Way. Combined with existing ultraviolet observations we will probe the silicate-to-carbonaceous dust ratio and test the importance of Asymptotic Giant Branch stars for dust formation as a function of metallicity. In addition, comparisons to silicate grain models will constrain shapes, Mg-to-Fe content, and oxidization of the grains. Combining this work with existing UV extinction measurements for the same sightlines will provide empirical average extinction curves at two different metallicities from the ultraviolet through the mid-infrared enabling all to account for the effects of dust on observations of lower than solar metallicity targets.

## OBSERVING DESCRIPTION

The proposed observations are to obtain 5-14 micron spectra of 11 sightlines in the Large and Small Magellanic Clouds using the MIRI Low Resolution Spectrometer (LRS). These are observations of point sources using the standard 2 nod dither pattern.

# Proposal 5168 - Targets - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	AZV-456	RA: 01 10 55.7665 (17.7323604d) Dec: -72 42 56.28 (-72.71563d) Equinox: J2000	Proper Motion RA: 0.002741929556121547 sec of time/yr Proper Motion Dec: -0.010158000009141688 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=Star            Description=[O stars]            Extended=NO</p>				
(2)	AZV-18	RA: 00 47 12.2191 (11.8009129d) Dec: -73 06 33.13 (-73.10920d) Equinox: J2000	Proper Motion RA: 1.9457451613754856E-4 sec of time/yr Proper Motion Dec: -0.0011139999514853116 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=Star            Description=[B stars]            Extended=NO</p>				
(3)	AZV-23	RA: 00 47 38.9049 (11.9121037d) Dec: -73 22 53.88 (-73.38163d) Equinox: J2000	Proper Motion RA: 1.3613264335718685E-4 sec of time/yr Proper Motion Dec: -0.0011489999224068015 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=Star            Description=[B stars]            Extended=NO</p>				
(4)	AZV-175	RA: 00 56 38.0800 (14.1586667d) Dec: -72 36 35.30 (-72.60981d) Equinox: J2000	Proper Motion RA: 1.4766362617750844E-4 sec of time/yr Proper Motion Dec: -0.0012089999017916853 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=Star            Description=[B stars]            Extended=NO</p>				
(5)	AZV-210	RA: 00 58 35.7868 (14.6491117d) Dec: -72 16 25.04 (-72.27362d) Equinox: J2000	Proper Motion RA: 1.4801598278121818E-4 sec of time/yr Proper Motion Dec: -0.0010789999805638217 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=Star            Description=[B stars]            Extended=NO</p>				
(6)	SK--67-2	RA: 04 47 4.4529 (71.7685537d) Dec: -67 06 53.11 (-67.11475d) Equinox: J2000	Proper Motion RA: 1.2925784956340563E-4 sec of time/yr Proper Motion Dec: 8.3E-4 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=Star            Description=[B stars]            Extended=NO</p>				

Fixed Targets

## Proposal 5168 - Targets - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

(7)	SK--68-26	RA: 05 01 32.2501 (75.3843754d) Dec: -68 10 42.94 (-68.17859d) Equinox: J2000	Proper Motion RA: 3.104531513815502E-4 sec of time/yr Proper Motion Dec: 1.24E-4 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=Star            Description=[B stars]            Extended=NO</p>			
(8)	SK--68-129	RA: 05 36 26.7796 (84.1115817d) Dec: -68 57 32.03 (-68.95890d) Equinox: J2000	Proper Motion RA: 2.684955562922259E-4 sec of time/yr Proper Motion Dec: 7.09E-4 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=Star            Description=[O stars]            Extended=NO</p>			
(9)	SK--70-79	RA: 05 06 37.2805 (76.6553354d) Dec: -70 29 24.19 (-70.49005d) Equinox: J2000	Proper Motion RA: 4.0901817004990464E-4 sec of time/yr Proper Motion Dec: 2.77E-4 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=Star            Description=[B stars]            Extended=NO</p>			
(10)	SK--69-270	RA: 05 41 20.3984 (85.3349933d) Dec: -69 05 7.26 (-69.08535d) Equinox: J2000	Proper Motion RA: 3.0963725983619475E-4 sec of time/yr Proper Motion Dec: 8.900000000000001E-4 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=Star            Description=[B stars]            Extended=NO</p>			
(11)	SK--70-116	RA: 05 49 2.8460 (87.2618583d) Dec: -70 02 30.12 (-70.04170d) Equinox: J2000	Proper Motion RA: 3.429659131099907E-4 sec of time/yr Proper Motion Dec: 8.47E-4 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=Star            Description=[B stars]            Extended=NO</p>			

# Proposal 5168 - Observation 1 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Fri Mar 01 01:01:24 GMT 2024

<b>Observation</b>	<b>Proposal 5168, Observation 1: AzV 456</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Low Resolution Spectroscopy									
<b>Diagnostics</b>	(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)	AZV-456	RA: 01 10 55.7665 (17.7323604d) Dec: -72 42 56.28 (-72.71563d) Equinox: J2000		Proper Motion RA: 0.002741929556121547 sec of time/yr Proper Motion Dec: -0.01015800009141688 arcsec/yr Epoch of Position: 2015.5					
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Star Description=[O stars] 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	F560W	FAST	4	1	1	11.1	175395	
<b>Template</b>	<b>Subarray</b>				<b>Obtain Verification Image?</b>					
	FULL				true					
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>		<b>No. Spectral Steps</b>	<b>Spectral Step Offset</b>	<b>No. Spatial Steps</b>		<b>Spatial Step Offset</b>		
	1	ALONG SLIT NOD								
<b>Pointing Verification</b>	<b>#</b>	<b>PV Readout Pattern</b>	<b>PV Groups/Int</b>	<b>PV Integrations/Exp</b>	<b>PV Total Integrations</b>	<b>PV Exposures/Dith</b>	<b>PV Total Dithers</b>	<b>PV Total Exposure Time</b>	<b>PV ETC Wkbk.Calc ID</b>	<b>Filter</b>
	1	FASTR1	5	1	1	1	1	13.875		F560W

Proposal 5168 - Observation 1 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	78	4	8	1	2	1748.275	175395

# Proposal 5168 - Observation 2 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Fri Mar 01 01:01:24 GMT 2024

<b>Observation</b>	<b>Proposal 5168, Observation 2: AzV 18</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Low Resolution Spectroscopy									
<b>Diagnostics</b>	(Visit 2:1) 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>			
	(2)	AZV-18	RA: 00 47 12.2191 (11.8009129d) Dec: -73 06 33.13 (-73.10920d) Equinox: J2000	Proper Motion RA: 1.9457451613754856E-4 sec of time/yr Proper Motion Dec: -0.0011139999514853116 arcsec/yr Epoch of Position: 2015.5						
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Star Description=[B stars] 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	F560W	FAST	4	1	1	11.1	175395	
<b>Template</b>	<b>Subarray</b>				<b>Obtain Verification Image?</b>					
	FULL				true					
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>		<b>No. Spectral Steps</b>	<b>Spectral Step Offset</b>	<b>No. Spatial Steps</b>		<b>Spatial Step Offset</b>		
	1	ALONG SLIT NOD								
<b>Pointing Verification</b>	<b>#</b>	<b>PV Readout Pattern</b>	<b>PV Groups/Int</b>	<b>PV Integrations/Exp</b>	<b>PV Total Integrations</b>	<b>PV Exposures/Dith</b>	<b>PV Total Dithers</b>	<b>PV Total Exposure Time</b>	<b>PV ETC Wkbk.Calc ID</b>	<b>Filter</b>
	1	FASTR1	5	1	1	1	1	13.875		F560W

Proposal 5168 - Observation 2 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	62	2	4	1	2	693.76	175395

# Proposal 5168 - Observation 3 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Fri Mar 01 01:01:24 GMT 2024

<b>Observation</b>	<b>Proposal 5168, Observation 3: AzV 23</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Low Resolution Spectroscopy									
<b>Diagnostics</b>	(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.									
<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous			
	(3)	AZV-23	RA: 00 47 38.9049 (11.9121037d) Dec: -73 22 53.88 (-73.38163d) Equinox: J2000	Proper Motion RA: 1.3613264335718685E-4 sec of time/yr Proper Motion Dec: -0.001148999224068015 arcsec/yr Epoch of Position: 2015.5						
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Star Description=[B stars] Extended=NO									
<b>Acquisition</b>	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	F560W	FAST	4	1	1	11.1	175395	
<b>Template</b>	Subarray				Obtain Verification Image?					
	FULL				true					
<b>Dithers</b>	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset				
	1	ALONG SLIT NOD								
<b>Pointing Verification</b>	#	PV Readout Pattern	PV Groups/Int	PV Integrations/Exp	PV Total Integrations	PV Exposures/Dith	PV Total Dithers	PV Total Exposure Time	PV ETC Wkbk.Calc ID	Filter
	1	FASTR1	5	1	1	1	1	13.875		F560W

Proposal 5168 - Observation 3 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	43	2	4	1	2	482.857	175395

# Proposal 5168 - Observation 4 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Fri Mar 01 01:01:24 GMT 2024

<b>Observation</b>	<b>Proposal 5168, Observation 4: AzV 175</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Low Resolution Spectroscopy									
	(Visit 4:1) 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>			
	(4)	AZV-175	RA: 00 56 38.0800 (14.1586667d) Dec: -72 36 35.30 (-72.60981d) Equinox: J2000	Proper Motion RA: 1.4766362617750844E-4 sec of time/yr Proper Motion Dec: -0.0012089999017916853 arcsec/yr Epoch of Position: 2015.5						
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Star Description=[B stars] 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	F560W	FAST	4	1	1	11.1	175395	
<b>Template</b>	<b>Subarray</b>				<b>Obtain Verification Image?</b>					
	FULL				true					
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>	<b>No. Spectral Steps</b>	<b>Spectral Step Offset</b>	<b>No. Spatial Steps</b>	<b>Spatial Step Offset</b>				
	1	ALONG SLIT NOD								
<b>Pointing Verification</b>	<b>#</b>	<b>PV Readout Pattern</b>	<b>PV Groups/Int</b>	<b>PV Integrations/Exp</b>	<b>PV Total Integrations</b>	<b>PV Exposures/Dith</b>	<b>PV Total Dithers</b>	<b>PV Total Exposure Time</b>	<b>PV ETC Wkbk.Calc ID</b>	<b>Filter</b>
	1	FASTR1	5	1	1	1	1	13.875		F560W

Proposal 5168 - Observation 4 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	163	10	20	1	2	9096.581	175395

Proposal 5168 - Observation 5 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Fri Mar 01 01:01:24 GMT 2024

<b>Observation</b>	<b>Proposal 5168, Observation 5: AzV 210</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Low 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)	AZV-210	RA: 00 58 35.7868 (14.6491117d) Dec: -72 16 25.04 (-72.27362d) Equinox: J2000	Proper Motion RA: 1.4801598278121818E-4 sec of time/yr Proper Motion Dec: -0.0010789999805638217 arcsec/yr Epoch of Position: 2015.5						
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Star Description=[B stars] 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	F560W	FAST	4	1	1	11.1	175395	
<b>Template</b>	<b>Subarray</b>				<b>Obtain Verification Image?</b>					
	FULL				true					
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>	<b>No. Spectral Steps</b>	<b>Spectral Step Offset</b>	<b>No. Spatial Steps</b>	<b>Spatial Step Offset</b>				
	1	ALONG SLIT NOD								
<b>Pointing Verification</b>	<b>#</b>	<b>PV Readout Pattern</b>	<b>PV Groups/Int</b>	<b>PV Integrations/Exp</b>	<b>PV Total Integrations</b>	<b>PV Exposures/Dith</b>	<b>PV Total Dithers</b>	<b>PV Total Exposure Time</b>	<b>PV ETC Wkbk.Calc ID</b>	<b>Filter</b>
	1	FASTR1	5	1	1	1	1	13.875		F560W

Proposal 5168 - Observation 5 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	124	2	4	1	2	1381.97	175395

Proposal 5168 - Observation 6 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Fri Mar 01 01:01:24 GMT 2024

<b>Observation</b>	<p><b>Proposal 5168, Observation 6: SK -67 2</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Observing Template: MIRI Low Resolution Spectroscopy</p>									
<b>Diagnostics</b>	(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)	SK--67-2	RA: 04 47 4.4529 (71.7685537d) Dec: -67 06 53.11 (-67.11475d) Equinox: J2000			Proper Motion RA: 1.2925784956340563E-4 sec of time/yr Proper Motion Dec: 8.3E-4 arcsec/yr Epoch of Position: 2015.5				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Star Description=[B stars] 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	F1000W	FAST	4	1	1	11.1	175395	
<b>Template</b>	<b>Subarray</b>					<b>Obtain Verification Image?</b>				
	FULL					true				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>			<b>No. Spectral Steps</b>	<b>Spectral Step Offset</b>	<b>No. Spatial Steps</b>		<b>Spatial Step Offset</b>	
	1	ALONG SLIT NOD								
<b>Pointing Verification</b>	<b>#</b>	<b>PV Readout Pattern</b>	<b>PV Groups/Int</b>	<b>PV Integrations/Exp</b>	<b>PV Total Integrations</b>	<b>PV Exposures/Dith</b>	<b>PV Total Dithers</b>	<b>PV Total Exposure Time</b>	<b>PV ETC Wkbk.Calc ID</b>	<b>Filter</b>
	1	FASTR1	5	1	1	1	1	13.875		F1000W

Proposal 5168 - Observation 6 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	17	2	4	1	2	194.253	175395

Proposal 5168 - Observation 7 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Fri Mar 01 01:01:24 GMT 2024

<b>Observation</b>	<b>Proposal 5168, Observation 7: SK -68 26</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Low 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)	SK--68-26	RA: 05 01 32.2501 (75.3843754d) Dec: -68 10 42.94 (-68.17859d) Equinox: J2000			Proper Motion RA: 3.104531513815502E-4 sec of time/yr Proper Motion Dec: 1.24E-4 arcsec/yr Epoch of Position: 2015.5				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Star Description=[B stars] 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	F560W	FAST	4	1	1	11.1	175395	
<b>Template</b>	<b>Subarray</b>					<b>Obtain Verification Image?</b>				
	FULL					true				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>			<b>No. Spectral Steps</b>	<b>Spectral Step Offset</b>	<b>No. Spatial Steps</b>		<b>Spatial Step Offset</b>	
	1	ALONG SLIT NOD								
<b>Pointing Verification</b>	<b>#</b>	<b>PV Readout Pattern</b>	<b>PV Groups/Int</b>	<b>PV Integrations/Exp</b>	<b>PV Total Integrations</b>	<b>PV Exposures/Dith</b>	<b>PV Total Dithers</b>	<b>PV Total Exposure Time</b>	<b>PV ETC Wkbk.Calc ID</b>	<b>Filter</b>
	1	FASTR1	5	1	1	1	1	13.875		F1000W

Proposal 5168 - Observation 7 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	21	2	4	1	2	238.653	175395

# Proposal 5168 - Observation 8 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Fri Mar 01 01:01:24 GMT 2024

<b>Observation</b>	<b>Proposal 5168, Observation 8: SK -68 129</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Low Resolution Spectroscopy									
<b>Diagnostics</b>	(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)	SK--68-129	RA: 05 36 26.7796 (84.1115817d) Dec: -68 57 32.03 (-68.95890d) Equinox: J2000			Proper Motion RA: 2.684955562922259E-4 sec of time/yr Proper Motion Dec: 7.09E-4 arcsec/yr Epoch of Position: 2015.5				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Star Description=[O stars] 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	F560W	FAST	4	1	1	11.1	175395	
<b>Template</b>	<b>Subarray</b>					<b>Obtain Verification Image?</b>				
	FULL					true				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>			<b>No. Spectral Steps</b>	<b>Spectral Step Offset</b>	<b>No. Spatial Steps</b>		<b>Spatial Step Offset</b>	
	1	ALONG SLIT NOD								
<b>Pointing Verification</b>	<b>#</b>	<b>PV Readout Pattern</b>	<b>PV Groups/Int</b>	<b>PV Integrations/Exp</b>	<b>PV Total Integrations</b>	<b>PV Exposures/Dith</b>	<b>PV Total Dithers</b>	<b>PV Total Exposure Time</b>	<b>PV ETC Wkbk.Calc ID</b>	<b>Filter</b>
	1	FASTR1	5	1	1	1	1	13.875		F560W

Proposal 5168 - Observation 8 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	100	2	4	1	2	1115.566	175395

Proposal 5168 - Observation 9 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Fri Mar 01 01:01:24 GMT 2024

<b>Observation</b>	<b>Proposal 5168, Observation 9: SK -70 79</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Low 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)	SK--70-79	RA: 05 06 37.2805 (76.6553354d) Dec: -70 29 24.19 (-70.49005d) Equinox: J2000			Proper Motion RA: 4.0901817004990464E-4 sec of time/yr Proper Motion Dec: 2.77E-4 arcsec/yr Epoch of Position: 2015.5				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Star Description=[B stars] 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	F560W	FAST	4	1	1	11.1	175395	
<b>Template</b>	<b>Subarray</b>					<b>Obtain Verification Image?</b>				
	FULL					true				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>			<b>No. Spectral Steps</b>	<b>Spectral Step Offset</b>	<b>No. Spatial Steps</b>		<b>Spatial Step Offset</b>	
	1	ALONG SLIT NOD								
<b>Pointing Verification</b>	<b>#</b>	<b>PV Readout Pattern</b>	<b>PV Groups/Int</b>	<b>PV Integrations/Exp</b>	<b>PV Total Integrations</b>	<b>PV Exposures/Dith</b>	<b>PV Total Dithers</b>	<b>PV Total Exposure Time</b>	<b>PV ETC Wkbk.Calc ID</b>	<b>Filter</b>
	1	FASTR1	5	1	1	1	1	13.875		F560W

Proposal 5168 - Observation 9 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	FASTR1	64	4	8	1	2	1437.471	175395

Proposal 5168 - Observation 10 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Fri Mar 01 01:01:24 GMT 2024

<b>Observation</b>	<p><b>Proposal 5168, Observation 10: SK -69 270</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Observing Template: MIRI Low Resolution Spectroscopy</p>									
<b>Diagnostics</b>	(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)	SK--69-270	RA: 05 41 20.3984 (85.3349933d) Dec: -69 05 7.26 (-69.08535d) Equinox: J2000		Proper Motion RA: 3.0963725983619475E-4 sec of time/yr Proper Motion Dec: 8.900000000000001E-4 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>Category=Star Description=[B stars] Extended=NO</p>									
<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	F1000W	FAST	4	1	1	11.1	175395	
<b>Template</b>	<b>Subarray</b>					<b>Obtain Verification Image?</b>				
	FULL					true				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>		<b>No. Spectral Steps</b>	<b>Spectral Step Offset</b>		<b>No. Spatial Steps</b>		<b>Spatial Step Offset</b>	
	1	ALONG SLIT NOD								
<b>Pointing Verification</b>	<b>#</b>	<b>PV Readout Pattern</b>	<b>PV Groups/Int</b>	<b>PV Integrations/Exp</b>	<b>PV Total Integrations</b>	<b>PV Exposures/Dith</b>	<b>PV Total Dithers</b>	<b>PV Total Exposure Time</b>	<b>PV ETC Wkbk.Calc ID</b>	<b>Filter</b>
	1	FASTR1	5	1	1	1	1	13.875		F1000W

Proposal 5168 - Observation 10 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
		1	FASTR1	16	2	4	1	2	183.153

Proposal 5168 - Observation 11 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Fri Mar 01 01:01:24 GMT 2024

<b>Observation</b>	<p><b>Proposal 5168, Observation 11: SK -70 116</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Observing Template: MIRI Low Resolution Spectroscopy</p>									
<b>Diagnostics</b>	(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)	SK--70-116	RA: 05 49 2.8460 (87.2618583d) Dec: -70 02 30.12 (-70.04170d) Equinox: J2000		Proper Motion RA: 3.429659131099907E-4 sec of time/yr Proper Motion Dec: 8.47E-4 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>Category=Star Description=[B stars] Extended=NO</p>									
<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	F560W	FAST	4	1	1	11.1	175395	
<b>Template</b>	<b>Subarray</b>					<b>Obtain Verification Image?</b>				
	FULL					true				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>		<b>No. Spectral Steps</b>	<b>Spectral Step Offset</b>		<b>No. Spatial Steps</b>		<b>Spatial Step Offset</b>	
	1	ALONG SLIT NOD								
<b>Pointing Verification</b>	<b>#</b>	<b>PV Readout Pattern</b>	<b>PV Groups/Int</b>	<b>PV Integrations/Exp</b>	<b>PV Total Integrations</b>	<b>PV Exposures/Dith</b>	<b>PV Total Dithers</b>	<b>PV Total Exposure Time</b>	<b>PV ETC Wkbk.Calc ID</b>	<b>Filter</b>
	1	FASTR1	5	1	1	1	1	13.875		F560W

Proposal 5168 - Observation 11 - First Direct Measurements of Interstellar Silicate Dust in the Magellanic Clouds

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
		1	FASTR1	28	2	4	1	2	316.355