



2331 - Unveiling Grain Growth in Very Dense Galactic Cores

Cycle: 1, Proposal Category: GO

INVESTIGATORS

| <i>Name</i> | <i>Institution</i> |
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| Dr. Roberta Paladini (PI) | California Institute of Technology |
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| Dr. Abraham C. Boogert (CoI) | University of Hawaii |
| Dr. Yasuhiro Hasegawa (CoI) | Jet Propulsion Laboratory |
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| Dr. Mika Juvela (CoI) (ESA Member) | University of Helsinki |
| Dr. Patrick W. Morris (CoI) | California Institute of Technology |
| Wanggi Lim (CoI) | California Institute of Technology |
| Dr. Laurent Pagani (CoI) (ESA Member) | Observatoire de Paris |
| Dr. Bruce T. Draine (CoI) | Princeton University |
| Dr. Sean Carey (CoI) | California Institute of Technology |
| Dr. Natalia Dzyurkevich (CoI) (ESA Member) | Max Planck Institute for Astronomy |
| Dr. Tracy L. Huard (CoI) | University of Maryland |
| Dr. Karine Demyk (CoI) (ESA Member) | Institut de Recherche en Astrophysique et Planetologie |
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| <i>Name</i> | <i>Institution</i> |
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| Dr. Giulia Perotti (CoI) (ESA Member) | Max Planck Institute for Astronomy |
| Dr. Neal Turner (CoI) | Jet Propulsion Laboratory |
| Dr. Yvonne Jean Pendleton (CoI) | University of Central Florida Board of Trustees |

OBSERVATIONS

| <i>Folder</i> | <i>Observation</i> | <i>Label</i> | <i>Observing Template</i> | <i>Science Target</i> |
|--------------------|--------------------|----------------|-------------------------------------|-----------------------|
| Observation Folder | | | | |
| | 1 | L694-2 Av=30 | MIRI Medium Resolution Spectroscopy | (5) L694-2N01 |
| | 31 | L694-2 Av=30 | MIRI Medium Resolution Spectroscopy | (5) L694-2N01 |
| | 2 | L694-2 Av=18.5 | MIRI Medium Resolution Spectroscopy | (4) L694-2N02 |
| | 32 | L694-2 Av=18.5 | MIRI Medium Resolution Spectroscopy | (4) L694-2N02 |
| | 3 | L694-2 Av=12.2 | MIRI Medium Resolution Spectroscopy | (6) L694-2N07 |
| | 33 | L694-2 Av=12.2 | MIRI Medium Resolution Spectroscopy | (6) L694-2N07 |
| | 4 | B335 Av=25 | MIRI Medium Resolution Spectroscopy | (8) B335N04 |
| | 34 | B335 Av=25 | MIRI Medium Resolution Spectroscopy | (8) B335N04 |
| | 5 | B355 Av=8.1 | MIRI Medium Resolution Spectroscopy | (7) B335N01 |
| | 35 | B355 Av=8.1 | MIRI Medium Resolution Spectroscopy | (7) B335N01 |
| | 6 | B68 Av=12.99 | MIRI Medium Resolution Spectroscopy | (12) B68N03 |
| | 36 | B68 Av=12.99 | MIRI Medium Resolution Spectroscopy | (12) B68N03 |
| | 7 | B68 Av=5.03 | MIRI Medium Resolution Spectroscopy | (14) B68N04 |
| | 37 | B68 Av=5.03 | MIRI Medium Resolution Spectroscopy | (14) B68N04 |
| | 8 | B68 Av=29.2 | MIRI Medium Resolution Spectroscopy | (11) B68N02 |
| | 38 | B68 Av=29.2 | MIRI Medium Resolution Spectroscopy | (11) B68N02 |
| | 9 | B68 Av=29.2 | MIRI Medium Resolution Spectroscopy | (11) B68N02 |
| | 10 | B68 Av=29.2 | MIRI Medium Resolution Spectroscopy | (11) B68N02 |
| | 11 | B68 Av=29.2 | MIRI Medium Resolution Spectroscopy | (11) B68N02 |
| | 12 | B68 Av=29.2 | MIRI Medium Resolution Spectroscopy | (11) B68N02 |
| | 13 | B68 Av=29.2 | MIRI Medium Resolution Spectroscopy | (11) B68N02 |
| | 14 | B68 Av=29.2 | MIRI Medium Resolution Spectroscopy | (11) B68N02 |
| | 15 | B68 Av=29.2 | MIRI Medium Resolution Spectroscopy | (11) B68N02 |
| | 16 | B355 Av=43.6 | MIRI Medium Resolution Spectroscopy | (13) B335N16 |
| | 46 | B355 Av=43.6 | MIRI Medium Resolution Spectroscopy | (13) B335N16 |

| <i>Folder</i> | <i>Observation</i> | <i>Label</i> | <i>Observing Template</i> | <i>Science Target</i> |
|---------------|--------------------|--------------|-------------------------------------|-----------------------|
| | 17 | B335 Av=43.6 | MIRI Medium Resolution Spectroscopy | (13) B335N16 |
| | 18 | B335 Av=43.6 | MIRI Medium Resolution Spectroscopy | (13) B335N16 |
| | 19 | B335 Av=43.6 | MIRI Medium Resolution Spectroscopy | (13) B335N16 |
| | 20 | B335 Av=43.6 | MIRI Medium Resolution Spectroscopy | (13) B335N16 |
| | 21 | B335 Av=43.6 | MIRI Medium Resolution Spectroscopy | (13) B335N16 |

ABSTRACT

Interstellar dust provides the building blocks of planets and the initial grain size distribution in the parent molecular cloud is key to understanding how planets form. Under typical diffuse ISM conditions, dust grains do not grow beyond ~0.5 micron. However, within dense molecular clouds, when shielded from the harsh interstellar radiation field, ice mantles form, allowing grain growth through coagulation.

Theoretical models predict that grain growth deforms the silicate band profiles at 9.7 and 18 micron and flattens the extinction curve between 5 and 26 micron. We propose to observe, with MIRI spectroscopy, 9 independent lines of sight through 3 very dense cores, from 5 to 40 mag of Av. Our proposed measurements, made possible by the exquisite JWST sensitivity, will be a paradigm shift in the field: the simultaneous observations of the 9.7 and 18 micron silicate absorption features at such high Av, of the 5-26 micron extinction curve, and of several ice features, coupled with state-of-the-art modelling, will allow us to resolve for the first time intrinsic degeneracies in grain size, shape and porosity. This will make it possible to set unprecedented constraints on astrochemical models with wide applications to planet and star formation. We will also deliver to the community a mini atlas of spectroscopic MIR extinction curves for the observed regions, which will be the very first publicly available for high Av sightlines.

This program complements the current JWST ERS portfolio, by helping to bridge a critical gap between star and planet formation, making it an ideal addition to the Cycle 1 observations which promise to deliver revolutionary science.

OBSERVING DESCRIPTION

Observations of silicate features offer a window into the physics of dust grains in the interior and immediate surrounding of dense molecular clouds. Here we propose MIRI spectroscopic observations of silicate feature bands for 9 background stars within 3 very dense cores. These observations will provide unprecedented constraints on models of interstellar dust and astrochemistry with wide applications to planet and star formation.

NOTE: Version 2. (A. N.-C. 14 September 2021)

That includes SLOWR1 to deal with data volumen issues, and also splitting exposures to deal with 2000sec < single integration limit.

Some of our science exposures have been slightly reduced, and yet with the overheads the Charged time has increased (less than 1%)

Version 1: Science Time = 43.84hr, Charged time = 59.98hr

Proposal 2331 - Targets - Unveiling Grain Growth in Very Dense Galactic Cores

| # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous |
|---|-----------|--|--------------------------|---------------|
| (4) | L694-2N02 | RA: 19 41 11.1200 (295.2963333d) Dec: +10 56 26.70 (10.94075d) Equinox: J2000 | | |
| <i>Comments:</i> Category=Star Description=[Pre-main sequence stars] | | | | |
| (5) | L694-2N01 | RA: 19 41 7.5400 (295.2814167d) Dec: +10 56 27.90 (10.94108d) Equinox: J2000 | | |
| <i>Comments:</i> Category=Star Description=[Pre-main sequence stars] | | | | |
| (6) | L694-2N07 | RA: 19 41 11.5900 (295.2982917d) Dec: +10 55 18.80 (10.92189d) Equinox: J2000 | | |
| <i>Comments:</i> Category=Star Description=[Pre-main sequence stars] | | | | |
| (7) | B335N01 | RA: 19 36 56.0900 (294.2337083d) Dec: +07 34 9.00 (7.56917d) Equinox: J2000 | | |
| <i>Comments:</i> Category=Star Description=[Pre-main sequence stars] | | | | |
| (8) | B335N04 | RA: 19 37 2.8400 (294.2618333d) Dec: +07 34 41.60 (7.57822d) Equinox: J2000 | | |
| <i>Comments:</i> Category=Star Description=[Pre-main sequence stars] | | | | |
| (11) | B68N02 | RA: 17 22 39.0119 (260.6625496d) Dec: -23 50 0.32 (-23.83342d) Equinox: J2000 | | |
| <i>Comments:</i> Category=Star Description=[Pre-main sequence stars] Extended=NO | | | | |
| (12) | B68N03 | RA: 17 22 37.9119 (260.6579663d) Dec: -23 48 51.44 (-23.81429d) Equinox: J2000 | | |
| <i>Comments:</i> Category=Star Description=[Pre-main sequence stars] | | | | |
| (13) | B335N16 | RA: 19 37 1.0000 (294.2541667d) Dec: +07 33 38.40 (7.56067d) Equinox: J2000 | | |
| <i>Comments:</i> Category=Star Description=[Pre-main sequence stars] | | | | |

Fixed Targets

Proposal 2331 - Targets - Unveiling Grain Growth in Very Dense Galactic Cores

| | | |
|------|--------|--|
| (14) | B68N04 | RA: 17 22 45.0019 (260.6875079d) Dec: -23 48 53.20 (-23.81478d) Equinox: J2000 |
|------|--------|--|

Comments:

Category=Star

Description=[Pre-main sequence stars]

Proposal 2331 - Observation 1 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--------------------------|---|-------------------------|--|---------------|------------------------|-----------------------------|---------------------------------|------------------------|------------------------|----------------------|--------------------------------|----------------------------|-------------------------|
| Observation | Proposal 2331, Observation 1: L694-2 Av=30 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 | | | |
| | (5) | L694-2N01 | RA: 19 41 7.5400 (295.2814167d) Dec: +10 56 27.90 (10.94108d) Equinox: J2000 | | | | | | | | | | |
| | <i>Comments:</i> <i>Category=Star</i> <i>Description=[Pre-main sequence stars]</i> | | | | | | | | | | | | |
| Acquisition | # | | | | | | | | | | | Target | |
| | 1 | | | | | | | | | | | NONE | |
| Template | AcqFilter | Primary Channel | | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | |
| | F560W | ALL | | | | 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 | 5 | 1 | 1 | Dither 1 | 4 | 4 | 55.501 | |
| | 1 | SHORT(A) | MRSSHORT | | FASTR1 | 5 | 1 | 1 | Dither 1 | 4 | 4 | 55.501 | |
| | 2 | MEDIUM(B) | MRSLONG | | FASTR1 | 5 | 1 | 1 | Dither 1 | 4 | 4 | 55.501 | |
| | 2 | MEDIUM(B) | MRSSHORT | | FASTR1 | 5 | 1 | 1 | Dither 1 | 4 | 4 | 55.501 | |
| | 3 | LONG(C) | MRSLONG | | FASTR1 | 5 | 1 | 1 | Dither 1 | 4 | 4 | 55.501 | |
| | 3 | LONG(C) | MRSSHORT | | FASTR1 | 5 | 1 | 1 | Dither 1 | 4 | 4 | 55.501 | |

Proposal 2331 - Observation 31 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--------------------------|--|------------------|--|----------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 31: L694-2 Av=30 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| Diagnostics | (Visit 31:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (5) | L694-2N01 | RA: 19 41 7.5400 (295.2814167d) Dec: +10 56 27.90 (10.94108d) Equinox: J2000 | | | | | | | | | | |
| | Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | |
| Acquisition | # | | | | | | | | | | | Target | |
| | 1 | | | | | | | | | | | NONE | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | F560W | ALL | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | | 1 | LONG(C) | MRSLONG | FASTR1 | 5 | 1 | 1 | Dither 1 | 4 | 4 | 55.501 | |
| | | 1 | LONG(C) | MRSSHORT | FASTR1 | 5 | 1 | 1 | Dither 1 | 4 | 4 | 55.501 | |

Proposal 2331 - Observation 2 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--|---|-------------------------|---|---------------|------------------------|-----------------------------|---------------------------------|------------------------|------------------------|----------------------|--------------------------------|----------------------------|-------------------------|
| Observation | Proposal 2331, Observation 2: L694-2 Av=18.5 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (4) | L694-2N02 | RA: 19 41 11.1200 (295.2963333d) Dec: +10 56 26.70 (10.94075d) Equinox: J2000 | | | | | | | | | | |
| <i>Comments:</i> Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | | |
| Acquisition | # | | | | | | | | | | | Target | |
| | 1 | | | | | | | | | | | NONE | |
| Template | AcqFilter | Primary Channel | | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | |
| | | ALL | | | | 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 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | 1 | SHORT(A) | MRSSHORT | | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | 2 | MEDIUM(B) | MRSLONG | | FASTR1 | 8 | 1 | 1 | Dither 1 | 4 | 4 | 88.801 | |
| | 2 | MEDIUM(B) | MRSSHORT | | FASTR1 | 8 | 1 | 1 | Dither 1 | 4 | 4 | 88.801 | |
| | 3 | LONG(C) | MRSLONG | | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | 3 | LONG(C) | MRSSHORT | | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |

Proposal 2331 - Observation 32 - Unveiling Grain Growth in Very Dense Galactic Cores

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|---|--|------------------|---|--------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 32: L694-2 Av=18.5 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 32:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (4) | L694-2N02 | RA: 19 41 11.1200 (295.2963333d) Dec: +10 56 26.70 (10.94075d) Equinox: J2000 | | | | | | | | | | |
| Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | ALL | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | LONG(C) | MRSLONG | | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | 1 | LONG(C) | MRSSHORT | | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |

Proposal 2331 - Observation 3 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--------------------------|---|------------------|---|----------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 3: L694-2 Av=12.2 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 | | | |
| | (6) | L694-2N07 | RA: 19 41 11.5900 (295.2982917d) Dec: +10 55 18.80 (10.92189d) Equinox: J2000 | | | | | | | | | | |
| | Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | ALL | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | | 1 | SHORT(A) | MRSLONG | FASTR1 | 15 | 1 | 1 | Dither 1 | 4 | 4 | 166.502 | |
| | | 1 | SHORT(A) | MRSSHORT | FASTR1 | 15 | 1 | 1 | Dither 1 | 4 | 4 | 166.502 | |
| | | 2 | MEDIUM(B) | MRSLONG | FASTR1 | 21 | 1 | 1 | Dither 1 | 4 | 4 | 233.103 | |
| | | 2 | MEDIUM(B) | MRSSHORT | FASTR1 | 21 | 1 | 1 | Dither 1 | 4 | 4 | 233.103 | |
| | | 3 | LONG(C) | MRSLONG | FASTR1 | 15 | 1 | 1 | Dither 1 | 4 | 4 | 166.502 | |
| | | 3 | LONG(C) | MRSSHORT | FASTR1 | 15 | 1 | 1 | Dither 1 | 4 | 4 | 166.502 | |

Proposal 2331 - Observation 33 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--------------------------|--|-------------------------|---|---------------|-----------------------------|----------------------|---------------------------------|------------------------|------------------|--------------------------------|---------------------------|----------------------------|-------------------------|
| Observation | <p>Proposal 2331, Observation 33: L694-2 Av=12.2</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Medium Resolution Spectroscopy</p> | | | | | | | | | | | | |
| Diagnostics | (Visit 33:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (6) | L694-2N07 | RA: 19 41 11.5900 (295.2982917d) Dec: +10 55 18.80 (10.92189d) Equinox: J2000 | | | | | | | | | | |
| | <p><i>Comments:</i> <i>Category=Star</i> <i>Description=[Pre-main sequence stars]</i></p> | | | | | | | | | | | | |
| Acquisition | # | | | | | | | | | | | Target | |
| | 1 | | | | | | | | | | | NONE | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | ALL | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | LONG(C) | MRSLONG | | FASTR1 | 15 | 1 | 1 | Dither 1 | 4 | 4 | 166.502 | |
| | 1 | LONG(C) | MRSSHORT | | FASTR1 | 15 | 1 | 1 | Dither 1 | 4 | 4 | 166.502 | |

Proposal 2331 - Observation 4 - Unveiling Grain Growth in Very Dense Galactic Cores

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|---|---|------------------|---|--------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 4: B335 Av=25 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 4:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (8) | B335N04 | RA: 19 37 2.8400 (294.2618333d) Dec: +07 34 41.60 (7.57822d) Equinox: J2000 | | | | | | | | | | |
| Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | ALL | | | 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 | LONG(C) | MRSLONG | | FASTR1 | 250 | 1 | 1 | Dither 1 | 4 | 4 | 2775.04 | |
| | 1 | LONG(C) | MRSSHORT | | FASTR1 | 250 | 1 | 1 | Dither 1 | 4 | 4 | 2775.04 | |
| | 2 | MEDIUM(B) | MRSLONG | | SLOWR1 | 58 | 2 | 1 | Dither 1 | 4 | 8 | 11180.483 | |
| | 2 | MEDIUM(B) | MRSSHORT | | SLOWR1 | 58 | 2 | 1 | Dither 1 | 4 | 8 | 11180.483 | |
| | 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 2331 - Observation 34 - Unveiling Grain Growth in Very Dense Galactic Cores

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| | | | | | | | | | | | | | |
|--------------------------|--|------------------|---|----------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 34: B335 Av=25 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| Diagnostics | (Visit 34:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (8) | B335N04 | RA: 19 37 2.8400 (294.2618333d) Dec: +07 34 41.60 (7.57822d) Equinox: J2000 | | | | | | | | | | |
| | Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | ALL | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | | 1 | LONG(C) | MRSLONG | FASTR1 | 83 | 3 | 1 | Dither 1 | 4 | 12 | 2786.14 | |
| | | 1 | LONG(C) | MRSSHORT | FASTR1 | 83 | 3 | 1 | Dither 1 | 4 | 12 | 2786.14 | |

Proposal 2331 - Observation 5 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--------------------------|--|------------------|---|----------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 5: B355 Av=8.1 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 | | | |
| | (7) | B335N01 | RA: 19 36 56.0900 (294.2337083d) Dec: +07 34 9.00 (7.56917d) Equinox: J2000 | | | | | | | | | | |
| | Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | |
| Acquisition | # | | | | | | | | | | | Target | |
| | 1 | | | | | | | | | | | NONE | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | ALL | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | | 1 | SHORT(A) | MRSLONG | SLOWR1 | 56 | 1 | 1 | Dither 1 | 4 | 4 | 5351.342 | |
| | | 1 | SHORT(A) | MRSSHORT | SLOWR1 | 56 | 1 | 1 | Dither 1 | 4 | 4 | 5351.342 | |
| | | 2 | MEDIUM(B) | MRSLONG | SLOWR1 | 56 | 1 | 1 | Dither 1 | 4 | 4 | 5351.342 | |
| | | 2 | MEDIUM(B) | MRSSHORT | SLOWR1 | 56 | 1 | 1 | Dither 1 | 4 | 4 | 5351.342 | |
| | | 3 | LONG(C) | MRSLONG | SLOWR1 | 56 | 1 | 1 | Dither 1 | 4 | 4 | 5351.342 | |
| | | 3 | LONG(C) | MRSSHORT | SLOWR1 | 56 | 1 | 1 | Dither 1 | 4 | 4 | 5351.342 | |

Proposal 2331 - Observation 35 - Unveiling Grain Growth in Very Dense Galactic Cores

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|---|---|------------------|---|--------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 35: B355 Av=8.1 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 35:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (7) | B335N01 | RA: 19 36 56.0900 (294.2337083d) Dec: +07 34 9.00 (7.56917d) Equinox: J2000 | | | | | | | | | | |
| Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | ALL | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | LONG(C) | MRSLONG | | SLOWR1 | 11 | 5 | 1 | Dither 1 | 4 | 20 | 5638.021 | |
| | 1 | LONG(C) | MRSSHORT | | SLOWR1 | 11 | 5 | 1 | Dither 1 | 4 | 20 | 5638.021 | |

Proposal 2331 - Observation 6 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--------------------------|---|------------------|--|----------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 6: B68 Av=12.99 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| Diagnostics | (Visit 6:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (12) | B68N03 | RA: 17 22 37.9119 (260.6579663d) Dec: -23 48 51.44 (-23.81429d) Equinox: J2000 | | | | | | | | | | |
| | Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | |
| Acquisition | # | | | | | | | | | | | Target | |
| | 1 | | | | | | | | | | | NONE | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | ALL | | | 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 | LONG(C) | MRSLONG | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | | 1 | LONG(C) | MRSSHORT | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | | 2 | MEDIUM(B) | MRSLONG | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | | 2 | MEDIUM(B) | MRSSHORT | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | | 3 | SHORT(A) | MRSLONG | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | | 3 | SHORT(A) | MRSSHORT | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |

Proposal 2331 - Observation 36 - Unveiling Grain Growth in Very Dense Galactic Cores

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|---|--|-------------------------|--|---------------|-----------------------------|----------------------|---------------------------------|------------------------|---------------|--------------------------------|---------------------------|----------------------------|-------------------------|
| Observation | Proposal 2331, Observation 36: B68 Av=12.99 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 36:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (12) | B68N03 | RA: 17 22 37.9119 (260.6579663d) Dec: -23 48 51.44 (-23.81429d) Equinox: J2000 | | | | | | | | | | |
| Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | ALL | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | LONG(C) | MRSLONG | | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | 1 | LONG(C) | MRSSHORT | | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |

Proposal 2331 - Observation 7 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--------------------------|--|------------------|--|----------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 7: B68 Av=5.03 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 | | | |
| | (14) | B68N04 | RA: 17 22 45.0019 (260.6875079d) Dec: -23 48 53.20 (-23.81478d) Equinox: J2000 | | | | | | | | | | |
| | Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | |
| Acquisition | # | | | | | | | | | | | Target | |
| | 1 | | | | | | | | | | | NONE | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | ALL | | | 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 | LONG(C) | MRSLONG | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | | 1 | LONG(C) | MRSSHORT | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | | 2 | MEDIUM(B) | MRSLONG | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | | 2 | MEDIUM(B) | MRSSHORT | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | | 3 | SHORT(A) | MRSLONG | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | | 3 | SHORT(A) | MRSSHORT | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |

Proposal 2331 - Observation 37 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--------------------------|---|------------------|---|--------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 37: B68 Av=5.03 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 37:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (14) | B68N04 | RA: 17 22 45.0019 (260.6875079d) Dec: -23 48 53.20 (-23.81478d) Equinox: J2000 Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | ALL | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | LONG(C) | MRSLONG | | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |
| | 1 | LONG(C) | MRSSHORT | | FASTR1 | 12 | 1 | 1 | Dither 1 | 4 | 4 | 133.202 | |

Proposal 2331 - Observation 8 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--|--|------------------|---|--------|----------------------|--------------------------|------------------|-----------------|---------------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 8: B68 Av=29.2 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 8:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | Targ. Coord. Corrections | | | Miscellaneous | | | | |
| | (11) | B68N02 | RA: 17 22 39.0119 (260.6625496d) Dec: -23 50 0.32 (-23.83342d) Equinox: J2000 | | | | | | | | | | |
| Comments: Category=Star Description=[Pre-main sequence stars] Extended=NO | | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | ALL | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | LONG(C) | MRSLONG | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |
| | 1 | LONG(C) | MRSSHORT | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |
| | 2 | MEDIUM(B) | MRSLONG | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |
| | 2 | MEDIUM(B) | MRSSHORT | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |
| | 3 | SHORT(A) | MRSLONG | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |
| | 3 | SHORT(A) | MRSSHORT | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |

Proposal 2331 - Observation 38 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--------------------------|---|------------------|---|--------|----------------------|--|------------------|----------------|-------------------------|---------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 38: B68 Av=29.2 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 38:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | Targ. Coord. Corrections | | | Miscellaneous | | | | |
| | (11) | B68N02 | RA: 17 22 39.0119 (260.6625496d) Dec: -23 50 0.32 (-23.83342d) Equinox: J2000 | | | Comments: Category=Star Description=[Pre-main sequence stars] Extended=NO | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | Imager Subarray | | Grating Wheel Direction | | | | |
| | | ALL | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | LONG(C) | MRSLONG | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |
| | 1 | LONG(C) | MRSSHORT | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |

Proposal 2331 - Observation 9 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--------------------------|--|------------------|---|--------|----------------------|---------------|--------------------------|----------------|-------------------------|---------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 9: B68 Av=29.2 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 9:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (11) | B68N02 | RA: 17 22 39.0119 (260.6625496d) Dec: -23 50 0.32 (-23.83342d) Equinox: J2000 Comments: Category=Star Description=[Pre-main sequence stars] Extended=NO | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | Imager Subarray | | Grating Wheel Direction | | | | |
| | | CHANNEL2 | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | MEDIUM(B) | MRSLONG | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |
| | 1 | MEDIUM(B) | MRSSHORT | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |

Proposal 2331 - Observation 10 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--|---|------------------|---|----------------------|--------------------------|-----------------|------------------|-------------------------|---------------|---------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 10: B68 Av=29.2 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 10:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | Targ. Coord. Corrections | | | | Miscellaneous | | | | |
| | (11) | B68N02 | RA: 17 22 39.0119 (260.6625496d) Dec: -23 50 0.32 (-23.83342d) Equinox: J2000 | | | | | | | | | | |
| Comments: Category=Star Description=[Pre-main sequence stars] Extended=NO | | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | Simultaneous Imaging | | Imager Subarray | | Grating Wheel Direction | | | | | |
| | | CHANNEL2 | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | MEDIUM(B) | MRSLONG | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |
| | 1 | MEDIUM(B) | MRSSHORT | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |

Proposal 2331 - Observation 11 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--|---|------------------|---|----------------------|--------------------------|-----------------|------------------|-------------------------|---------------|---------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 11: B68 Av=29.2 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 11:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | Targ. Coord. Corrections | | | | Miscellaneous | | | | |
| | (11) | B68N02 | RA: 17 22 39.0119 (260.6625496d) Dec: -23 50 0.32 (-23.83342d) Equinox: J2000 | | | | | | | | | | |
| Comments: Category=Star Description=[Pre-main sequence stars] Extended=NO | | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | Simultaneous Imaging | | Imager Subarray | | Grating Wheel Direction | | | | | |
| | | CHANNEL2 | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | MEDIUM(B) | MRSLONG | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |
| | 1 | MEDIUM(B) | MRSSHORT | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |

Proposal 2331 - Observation 12 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--------------------------|---|------------------|---|--------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 12: B68 Av=29.2 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| Diagnostics | (Visit 12:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (11) | B68N02 | RA: 17 22 39.0119 (260.6625496d) Dec: -23 50 0.32 (-23.83342d) Equinox: J2000 | | | | | | | | | | |
| | Comments: Category=Star Description=[Pre-main sequence stars] Extended=NO | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | CHANNEL2 | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | MEDIUM(B) | MRSLONG | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |
| | 1 | MEDIUM(B) | MRSSHORT | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |

Proposal 2331 - Observation 13 - Unveiling Grain Growth in Very Dense Galactic Cores

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| | | | | | | | | | | | | | |
|--|---|------------------|---|----------------------|--------------------------|-----------------|------------------|-------------------------|---------------|---------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 13: B68 Av=29.2 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 13:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | Targ. Coord. Corrections | | | | Miscellaneous | | | | |
| | (11) | B68N02 | RA: 17 22 39.0119 (260.6625496d) Dec: -23 50 0.32 (-23.83342d) Equinox: J2000 | | | | | | | | | | |
| Comments: Category=Star Description=[Pre-main sequence stars] Extended=NO | | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | Simultaneous Imaging | | Imager Subarray | | Grating Wheel Direction | | | | | |
| | | CHANNEL2 | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | MEDIUM(B) | MRSLONG | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |
| | 1 | MEDIUM(B) | MRSSHORT | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |

Proposal 2331 - Observation 14 - Unveiling Grain Growth in Very Dense Galactic Cores

Mon Aug 21 22:03:02 GMT 2023

| | | | | | | | | | | | | | |
|--|---|------------------|---|--------|----------------------|--------------------------|------------------|----------------|-------------------------|---------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 14: B68 Av=29.2 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (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) | B68N02 | RA: 17 22 39.0119 (260.6625496d) Dec: -23 50 0.32 (-23.83342d) Equinox: J2000 | | | | | | | | | | |
| Comments: Category=Star Description=[Pre-main sequence stars] Extended=NO | | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | Imager Subarray | | Grating Wheel Direction | | | | |
| | | CHANNEL2 | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | MEDIUM(B) | MRSLONG | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |
| | 1 | MEDIUM(B) | MRSSHORT | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |

Proposal 2331 - Observation 15 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--------------------------|---|-------------------------|---|---------------|-----------------------------|----------------------|---------------------------------|------------------------|---------------|--------------------------------|---------------------------|----------------------------|-------------------------|
| Observation | <p>Proposal 2331, Observation 15: B68 Av=29.2</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Medium Resolution Spectroscopy</p> | | | | | | | | | | | | |
| Diagnostics | <p>(Visit 15:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (11) | B68N02 | RA: 17 22 39.0119 (260.6625496d) Dec: -23 50 0.32 (-23.83342d) Equinox: J2000 | | | | | | | | | | |
| | <i>Comments:</i> <i>Category=Star</i> <i>Description=[Pre-main sequence stars]</i> <i>Extended=NO</i> | | | | | | | | | | | | |
| Acquisition | # | | | | | | | | | | | Target | |
| | 1 | | | | | | | | | | | NONE | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | CHANNEL2 | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | MEDIUM(B) | MRSLONG | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |
| | 1 | MEDIUM(B) | MRSSHORT | | SLOWR1 | 58 | 1 | 1 | Dither 1 | 4 | 4 | 5542.461 | |

Proposal 2331 - Observation 16 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--------------------------|--|------------------|---|----------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 16: B355 Av=43.6 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| Diagnostics | (Visit 16:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (13) | B335N16 | RA: 19 37 1.0000 (294.2541667d) Dec: +07 33 38.40 (7.56067d) Equinox: J2000 | | | | | | | | | | |
| | Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | ALL | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | | 1 | LONG(C) | MRSLONG | FASTR1 | 250 | 1 | 1 | Dither 1 | 4 | 4 | 2775.04 | |
| | | 1 | LONG(C) | MRSSHORT | FASTR1 | 250 | 1 | 1 | Dither 1 | 4 | 4 | 2775.04 | |
| | | 2 | MEDIUM(B) | MRSLONG | SLOWR1 | 58 | 2 | 1 | Dither 1 | 4 | 8 | 11180.483 | |
| | | 2 | MEDIUM(B) | MRSSHORT | SLOWR1 | 58 | 2 | 1 | Dither 1 | 4 | 8 | 11180.483 | |
| | | 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 2331 - Observation 46 - Unveiling Grain Growth in Very Dense Galactic Cores

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|---|--|-------------------------|---|---------------|-----------------------------|----------------------|---------------------------------|------------------------|---------------|--------------------------------|---------------------------|----------------------------|-------------------------|
| Observation | Proposal 2331, Observation 46: B355 Av=43.6 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 46:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (13) | B335N16 | RA: 19 37 1.0000 (294.2541667d) Dec: +07 33 38.40 (7.56067d) Equinox: J2000 | | | | | | | | | | |
| Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | ALL | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | LONG(C) | MRSLONG | | FASTR1 | 125 | 2 | 1 | Dither 1 | 4 | 8 | 2786.14 | |
| | 1 | LONG(C) | MRSSHORT | | FASTR1 | 125 | 2 | 1 | Dither 1 | 4 | 8 | 2786.14 | |

Proposal 2331 - Observation 17 - Unveiling Grain Growth in Very Dense Galactic Cores

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|---|--|-------------------------|---|---------------|-----------------------------|----------------------|---------------------------------|------------------------|---------------|--------------------------------|---------------------------|----------------------------|-------------------------|
| Observation | Proposal 2331, Observation 17: B335 Av=43.6 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 17:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (13) | B335N16 | RA: 19 37 1.0000 (294.2541667d) Dec: +07 33 38.40 (7.56067d) Equinox: J2000 | | | | | | | | | | |
| Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | CHANNEL2 | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | MEDIUM(B) | MRSLONG | | SLOWR1 | 57 | 2 | 1 | Dither 1 | 4 | 8 | 10989.363 | |
| | 1 | MEDIUM(B) | MRSSHORT | | SLOWR1 | 57 | 2 | 1 | Dither 1 | 4 | 8 | 10989.363 | |

Proposal 2331 - Observation 18 - Unveiling Grain Growth in Very Dense Galactic Cores

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|--------------------------|--|------------------|--|--------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 18: B335 Av=43.6 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 18:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (13) | B335N16 | RA: 19 37 1.0000 (294.2541667d) Dec: +07 33 38.40 (7.56067d) Equinox: J2000 Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | CHANNEL2 | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | MEDIUM(B) | MRSLONG | | SLOWR1 | 57 | 2 | 1 | Dither 1 | 4 | 8 | 10989.363 | |
| | 1 | MEDIUM(B) | MRSSHORT | | SLOWR1 | 57 | 2 | 1 | Dither 1 | 4 | 8 | 10989.363 | |

Proposal 2331 - Observation 19 - Unveiling Grain Growth in Very Dense Galactic Cores

Mon Aug 21 22:03:02 GMT 2023

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|--------------------------|--|------------------|---|--------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 19: B335 Av=43.6 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| Diagnostics | (Visit 19:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (13) | B335N16 | RA: 19 37 1.0000 (294.2541667d) Dec: +07 33 38.40 (7.56067d) Equinox: J2000 | | | | | | | | | | |
| | Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | |
| Acquisition | # | | | | | | | | | | | Target | |
| | 1 | | | | | | | | | | | NONE | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | CHANNEL2 | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | MEDIUM(B) | MRSLONG | | SLOWR1 | 57 | 2 | 1 | Dither 1 | 4 | 8 | 10989.363 | |
| | 1 | MEDIUM(B) | MRSSHORT | | SLOWR1 | 57 | 2 | 1 | Dither 1 | 4 | 8 | 10989.363 | |

Proposal 2331 - Observation 20 - Unveiling Grain Growth in Very Dense Galactic Cores

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|---|--|------------------|---|--------|----------------------|---------------|--------------------------|-----------------|----------|-------------------------|--------------------|---------------------|------------------|
| Observation | Proposal 2331, Observation 20: B335 Av=43.6 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 20:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (13) | B335N16 | RA: 19 37 1.0000 (294.2541667d) Dec: +07 33 38.40 (7.56067d) Equinox: J2000 | | | | | | | | | | |
| Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | CHANNEL2 | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | MEDIUM(B) | MRSLONG | | SLOWR1 | 57 | 2 | 1 | Dither 1 | 4 | 8 | 10989.363 | |
| | 1 | MEDIUM(B) | MRSSHORT | | SLOWR1 | 57 | 2 | 1 | Dither 1 | 4 | 8 | 10989.363 | |

Proposal 2331 - Observation 21 - Unveiling Grain Growth in Very Dense Galactic Cores

Mon Aug 21 22:03:02 GMT 2023

| | | | | | | | | | | | | | |
|---|--|-------------------------|---|---------------|-----------------------------|----------------------|---------------------------------|------------------------|---------------|--------------------------------|---------------------------|----------------------------|-------------------------|
| Observation | Proposal 2331, Observation 21: B335 Av=43.6 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy | | | | | | | | | | | | |
| | (Visit 21:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (13) | B335N16 | RA: 19 37 1.0000 (294.2541667d) Dec: +07 33 38.40 (7.56067d) Equinox: J2000 | | | | | | | | | | |
| Comments: Category=Star Description=[Pre-main sequence stars] | | | | | | | | | | | | | |
| Acquisition | # | Target | | | | | | | | | | | |
| | 1 | NONE | | | | | | | | | | | |
| Template | AcqFilter | Primary Channel | | | Simultaneous Imaging | | | Imager Subarray | | Grating Wheel Direction | | | |
| | | CHANNEL2 | | | 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/Exp | Exposures/Dith | Dither | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | MEDIUM(B) | MRSLONG | | SLOWR1 | 61 | 2 | 1 | Dither 1 | 4 | 8 | 11753.841 | |
| | 1 | MEDIUM(B) | MRSSHORT | | SLOWR1 | 61 | 2 | 1 | Dither 1 | 4 | 8 | 11753.841 | |