



1489 - Instrument Model

Cycle: 1, Proposal Category: CAL/NIRSPEC

INVESTIGATORS

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OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
Observation Folder				
	1	NS 4.7.2-7 NIRSpec Model (gratings)	NIRSpec Internal Lamp	NONE

ABSTRACT

From a set of internal CAA lamp exposures, this activity, along with the GWA tilt calibration monitor program, will serve to monitor the NIRSpec instrument model during cycle 1. The instrument model is a parametric model of NIRSpec optical geometry and is used to trace, extract and rectify the spectra and provides WCS information for each pixel in a 2D spectrum. Most model components are expected to remain stable, but a limited monitor will guard against changes not traceable via existing observations.

This calibration program is provisional and may change in response to system developments and the final science program.

OBSERVING DESCRIPTION

The crucial aspect of this activity is that the data for each grating must be obtained without moving the GWA between exposures.

For each of the six NIRSpec gratings, exposures will be obtained with the CAA REF lamp and the appropriate LINE and FLAT lamps through one customized MSA configuration. In addition, a similar set of lamps will be used to obtain IFU exposures (plus associated "background" exposures

JWST Proposal 1489 (Created: Wednesday, July 13, 2022 at 6:00:24 PM Eastern Standard Time) - Overview

through the all-closed MSA with IFU closed). For the PRISM, we will obtain a similar data set, but using CAA lamps FLAT5 and LINE4, as the PRISM spans the entire NIRSpec wavelength range. The treatment of GWA tilt calibration monitor will be conducted as a separate activity. The cadence still needs to be determined and may be as frequent as once per month to correspond with the GWA tilt program.

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Observation	<p>Proposal 1489, Observation 1: NS 4.7.2-7 NIRSpec Model (gratings) Wed Jul 13 23:00:24 GMT 2022</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSpec Internal Lamp</p> <p><i>Comments: Activities are for the following tests:</i></p> <p><i>NS 4.7.2 (G140H): 1 to 30</i></p> <p><i>NS 4.7.3 (G235H): 31 to 56</i></p> <p><i>NS 4.7.4 (G395H): 57 to 82</i></p> <p><i>NS 4.7.5 (G140M): 83 to 111</i></p> <p><i>NS 4.7.6 (G235M): 112 to 137</i></p> <p><i>NS 4.7.7 (G395M): 138 to 163</i></p>
	Diagnostics

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Spectral Elements	#	Operating Mode	Subarray	Lamp	MSA Configuration	Grating	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	IMAGE	FULL	TEST	CHKBD3x3-1	MIRROR	NRSIRS2RAPI D	5	1	1	87.533	
	2	IMAGE	FULL	TEST	CROSS5-B	MIRROR	NRSIRS2RAPI D	5	1	1	87.533	
	3	IMAGE	FULL	TEST	CROSS5-B	MIRROR	NRSIRS2RAPI D	5	1	1	87.533	
	4	MSASPEC	FULL	LINE1	SPCB-GD-B	G140H	NRSIRS2RAPI D	7	1	1	116.711	
	5	MSASPEC	FULL	REF	SPCB-GD-B	G140H	NRSIRS2RAPI D	10	1	1	160.478	
	6	MSASPEC	FULL	FLAT1	SPCB-GD-B	G140H	NRSIRS2RAPI D	14	1	1	218.833	
	7	IFU	FULL	FLAT1		G140H	NRSIRS2RAPI D	28	1	1	423.078	
	8	IFU	FULL	LINE1		G140H	NRSIRS2RAPI D	7	1	1	116.711	
	9	IFU	FULL	REF		G140H	NRSIRS2RAPI D	20	1	1	306.367	
	10	FIXEDSLIT	FULL	FLAT1	ALLCLOSED	G140H	NRSIRS2RAPI D	28	1	1	423.078	
	11	FIXEDSLIT	FULL	LINE1	ALLCLOSED	G140H	NRSIRS2RAPI D	7	1	1	116.711	
	12	FIXEDSLIT	FULL	REF	ALLCLOSED	G140H	NRSIRS2RAPI D	20	1	1	306.367	
	13	MSASPEC	FULL	REF	SPCB-GD-B	G235H	NRSIRS2RAPI D	10	1	1	160.478	
	14	MSASPEC	FULL	FLAT2	SPCB-GD-B	G235H	NRSIRS2RAPI D	17	1	1	262.6	
	15	MSASPEC	FULL	LINE2	SPCB-GD-B	G235H	NRSIRS2RAPI D	7	1	1	116.711	
	16	IFU	FULL	FLAT2		G235H	NRSIRS2RAPI D	34	1	1	510.611	
	17	IFU	FULL	REF		G235H	NRSIRS2RAPI D	20	1	1	306.367	
	18	IFU	FULL	LINE2		G235H	NRSIRS2RAPI D	7	1	1	116.711	
	19	FIXEDSLIT	FULL	FLAT2	ALLCLOSED	G235H	NRSIRS2RAPI D	34	1	1	510.611	
	20	FIXEDSLIT	FULL	REF	ALLCLOSED	G235H	NRSIRS2RAPI D	20	1	1	306.367	
	21	FIXEDSLIT	FULL	LINE2	ALLCLOSED	G235H	NRSIRS2RAPI D	7	1	1	116.711	
	22	MSASPEC	FULL	LINE3	SPCB-GD-B	G395H	NRSIRS2RAPI D	7	1	1	116.711	
	23	MSASPEC	FULL	FLAT3	SPCB-GD-B	G395H	NRSIRS2RAPI D	14	1	1	218.833	
	24	MSASPEC	FULL	REF	SPCB-GD-B	G395H	NRSIRS2RAPI D	10	1	1	160.478	
	25	IFU	FULL	FLAT3		G395H	NRSIRS2RAPI D	28	1	1	423.078	
26	IFU	FULL	LINE3		G395H	NRSIRS2RAPI D	7	1	1	116.711		

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#	Operating Mode	Subarray	Lamp	MSA Configuration	Grating	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
27	IFU	FULL	REF		G395H	NRSIRS2RAPID	20	1	1	306.367	
28	FIXEDSLIT	FULL	FLAT3	ALLCLOSED	G395H	NRSIRS2RAPID	28	1	1	423.078	
29	FIXEDSLIT	FULL	LINE3	ALLCLOSED	G395H	NRSIRS2RAPID	7	1	1	116.711	
30	FIXEDSLIT	FULL	REF	ALLCLOSED	G395H	NRSIRS2RAPID	20	1	1	306.367	
31	MSASPEC	FULL	LINE1	SPCB-GD-B	G140M	NRSIRS2RAPID	5	1	1	87.533	
32	MSASPEC	FULL	FLAT1	SPCB-GD-B	G140M	NRSIRS2RAPID	6	1	1	102.122	
33	MSASPEC	FULL	REF	SPCB-GD-B	G140M	NRSIRS2RAPID	5	1	1	87.533	
34	IFU	FULL	FLAT1		G140M	NRSIRS2RAPID	12	1	1	189.656	
35	IFU	FULL	LINE1		G140M	NRSIRS2RAPID	7	1	1	116.711	
36	IFU	FULL	REF		G140M	NRSIRS2RAPID	10	1	1	160.478	
37	FIXEDSLIT	FULL	FLAT1	ALLCLOSED	G140M	NRSIRS2RAPID	12	1	1	189.656	
38	FIXEDSLIT	FULL	REF	ALLCLOSED	G140M	NRSIRS2RAPID	10	1	1	160.478	
39	FIXEDSLIT	FULL	LINE1	ALLCLOSED	G140M	NRSIRS2RAPID	7	1	1	116.711	
40	MSASPEC	FULL	LINE2	SPCB-GD-B	G235M	NRSIRS2RAPID	7	1	1	116.711	
41	MSASPEC	FULL	FLAT2	SPCB-GD-B	G235M	NRSIRS2RAPID	7	1	1	116.711	
42	MSASPEC	FULL	REF	SPCB-GD-B	G235M	NRSIRS2RAPID	5	1	1	87.533	
43	IFU	FULL	FLAT2		G235M	NRSIRS2RAPID	14	1	1	218.833	
44	IFU	FULL	LINE2		G235M	NRSIRS2RAPID	7	1	1	116.711	
45	IFU	FULL	REF		G235M	NRSIRS2RAPID	10	1	1	160.478	
46	FIXEDSLIT	FULL	FLAT2	ALLCLOSED	G235M	NRSIRS2RAPID	14	1	1	218.833	
47	FIXEDSLIT	FULL	REF	ALLCLOSED	G235M	NRSIRS2RAPID	10	1	1	160.478	
48	FIXEDSLIT	FULL	LINE2	ALLCLOSED	G235M	NRSIRS2RAPID	7	1	1	116.711	
49	MSASPEC	FULL	LINE3	SPCB-GD-B	G395M	NRSIRS2RAPID	6	1	1	102.122	
50	MSASPEC	FULL	FLAT3	SPCB-GD-B	G395M	NRSIRS2RAPID	6	1	1	102.122	
51	MSASPEC	FULL	REF	SPCB-GD-B	G395M	NRSIRS2RAPID	5	1	1	87.533	
52	IFU	FULL	FLAT3		G395M	NRSIRS2RAPID	12	1	1	189.656	

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#	Operating Mode	Subarray	Lamp	MSA Configuration	Grating	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
53	IFU	FULL	LINE3		G395M	NRSIRS2RAPID	7	1	1	116.711	
54	IFU	FULL	REF		G395M	NRSIRS2RAPID	10	1	1	160.478	
55	FIXEDSLIT	FULL	FLAT3	ALLCLOSED	G395M	NRSIRS2RAPID	12	1	1	189.656	
56	FIXEDSLIT	FULL	REF	ALLCLOSED	G395M	NRSIRS2RAPID	10	1	1	160.478	
57	FIXEDSLIT	FULL	LINE3	ALLCLOSED	G395M	NRSIRS2RAPID	7	1	1	116.711	
58	MSASPEC	FULL	FLAT5	SPCB-PD-B	PRISM	NRSIRS2RAPID	10	1	1	160.478	
59	MSASPEC	FULL	LINE4	SPCB-PD-B	PRISM	NRSIRS2RAPID	5	1	1	87.533	
60	IFU	FULL	FLAT5		PRISM	NRSIRS2RAPID	20	1	1	306.367	
61	IFU	FULL	LINE4		PRISM	NRSIRS2RAPID	7	1	1	116.711	
62	FIXEDSLIT	FULL	FLAT5	ALLCLOSED	PRISM	NRSIRS2RAPID	20	1	1	306.367	
63	FIXEDSLIT	FULL	LINE4	ALLCLOSED	PRISM	NRSIRS2RAPID	7	1	1	116.711	
64	MSASPEC	FULL	TEST	CHKBD3x3-1	MIRROR	NRSIRS2RAPID	5	1	1	87.533	
65	MSASPEC	FULL	TEST	CHKBD3x3-1	MIRROR	NRSIRS2RAPID	5	1	1	87.533	
66	MSASPEC	FULL	TEST	CHKBD3x3-1	MIRROR	NRSIRS2RAPID	5	1	1	87.533	
Special Requirements	Between Dates 01-JAN-2023:00:00:00 and 15-MAY-2023:00:00:00 No Parallel										