



1292 - ROSS 458 ABc

Cycle: 1, Proposal Category: GTO

INVESTIGATORS

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OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
ROSS458c				
	1	S200 A1 & A2, 0.7-3.2 um Hi-res grating	NIRSpec Fixed Slit Spectroscopy	(1) ROSS458C

ABSTRACT

ROSS 458 ABc is a roughly 9 Jupiter mass object that, on the basis of its estimated mass, may be transitional between Jovian planets and brown dwarfs. It is well separated from its parent stars. As such, detailed spectral observations with JWST provide the opportunity to compare the spectral appearance of such a transitional, isolated object with lower-mass Jovian planets of comparable effective temperature but heated by being close to their parent stars. The purpose of this program is to collect such data, and compare it with the transit data from close-in Jupiters being collected under other JWST GTO programs.

OBSERVING DESCRIPTION

This program will study the atmospheric property of the T dwarf ROSS 458 ABc by taking fixed slit spectroscopy. 3 Hi-resolution gratings F070LP/G140H, F100LP/G140H, F170LP/G235H with both subarrays S200 A1 & A2 are used to cover the spectral range of 0.7-3.17 micron, which will be coordinated with mid-IR spectra from MIRI observation. SNR $> \sim 100$ is aimed for the observation in each grating.

Proposal 1292 - Targets - ROSS 458 ABc

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
	(1) <i>Comments:</i> Category=Star Description=[B dwarfs, Exoplanet Systems] Extended=NO	ROSS458C	RA: 13 00 41.7427 (195.1739279d) Dec: +12 21 14.72 (12.35409d) Equinox: J2000	Proper Motion RA: -628.7153 mas/yr Proper Motion Dec: -33.4718 mas/yr Parallax: 0.0869010" Epoch of Position: 2007.9917	

Proposal 1292 - Observation 1 - ROSS 458 ABc

Fri May 26 16:01:51 GMT 2023

Observation	Proposal 1292, Observation 1: S200 A1 & A2, 0.7-3.2um Hi-res grating Diagnostic Status: Warning Observing Template: NIRSpec Fixed Slit Spectroscopy										
	(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(1)	ROSS458C	RA: 13 00 41.7427 (195.1739279d) Dec: +12 21 14.72 (12.35409d) Equinox: J2000			Proper Motion RA: -628.7153 mas/yr Proper Motion Dec: -33.4718 mas/yr Parallax: 0.0869010" Epoch of Position: 2007.9917					
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Acquisition	#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	1 ROSS458C	WATA	SUB2048	F110W	NRSRAPID	3	1	1	3.628	33113
Template	Slit					Subarray					
	S200A1 and S200A2					ALLSLITS					
Dithers	#	Primary Dither Positions					Sub-Pixel Pattern				
	1	2					NONE				
Spectral Elements	#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Ex #	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	G140H/F070LP	S200A1	NRSRAPID	189	1	NONE	2	2	2087.761	33110
	2	G140H/F070LP	S200A2	NRSRAPID	189	1	NONE	2	2	2087.761	
	3	G140H/F100LP	S200A2	NRSRAPID	212	2	NONE	2	4	4680.97	
	4	G140H/F100LP	S200A1	NRSRAPID	212	2	NONE	2	4	4680.97	33111
	5	G235H/F170LP	S200A1	NRSRAPID	164	2	NONE	2	4	3626.122	33112
	6	G235H/F170LP	S200A2	NRSRAPID	164	2	NONE	2	4	3626.122	