Spectroscopic Record Sheet

Details on acquisitions

Object	MoMi 3
Coordinates (J2000)	07:07:51.23 -12:07:50.92
Type	PN candidate

Observation date	13.945/01/2021 (d/m/y)
Meteorological conditions	0°C
Observer	L.Mulato
Location	Cornillon France

Mount	NEQ6
Telescope	Newton Skywatcher 200 mm F/5
Spectrograph	Alpy 600 - 23 µm slit
Resolution (bin 1x1)	~1 Å at λ656 nm
Science camera	ATIK 414 EX
Dispersion (bin 1x1)	~0,3 nm/pixel at λ656 nm
Cam Temperature	-10 °C
Binning	2x2
Guiding camera	ASI290 MM non cooled
Data acquisition Soft	PRISM V10
Data processing Soft	Isis V5.9.3

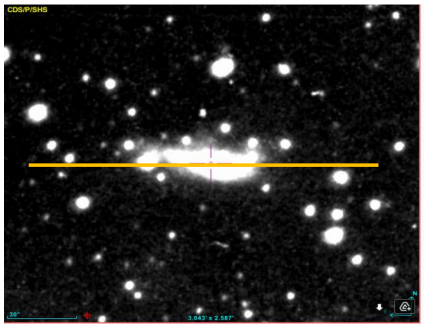
Exposure on object	7 x 1200 s
Master Dark date	27/09/2020 (d/m/y)
Dark Exposure	3 x 1200 s
Dark Temperature	-10 °C
Master Offset date	27/09/2020 (d/m/y)
Master Flat date	28/04/2021 (d/m/y)
Neon-Argon calib. date	14/01/2021 (d/m/y)
Reference star calib.	hd55185_A2V
Exposure on ref star	13 x 8 s
Ref Star Sp. date	14.000/01/2021

Images and slit position

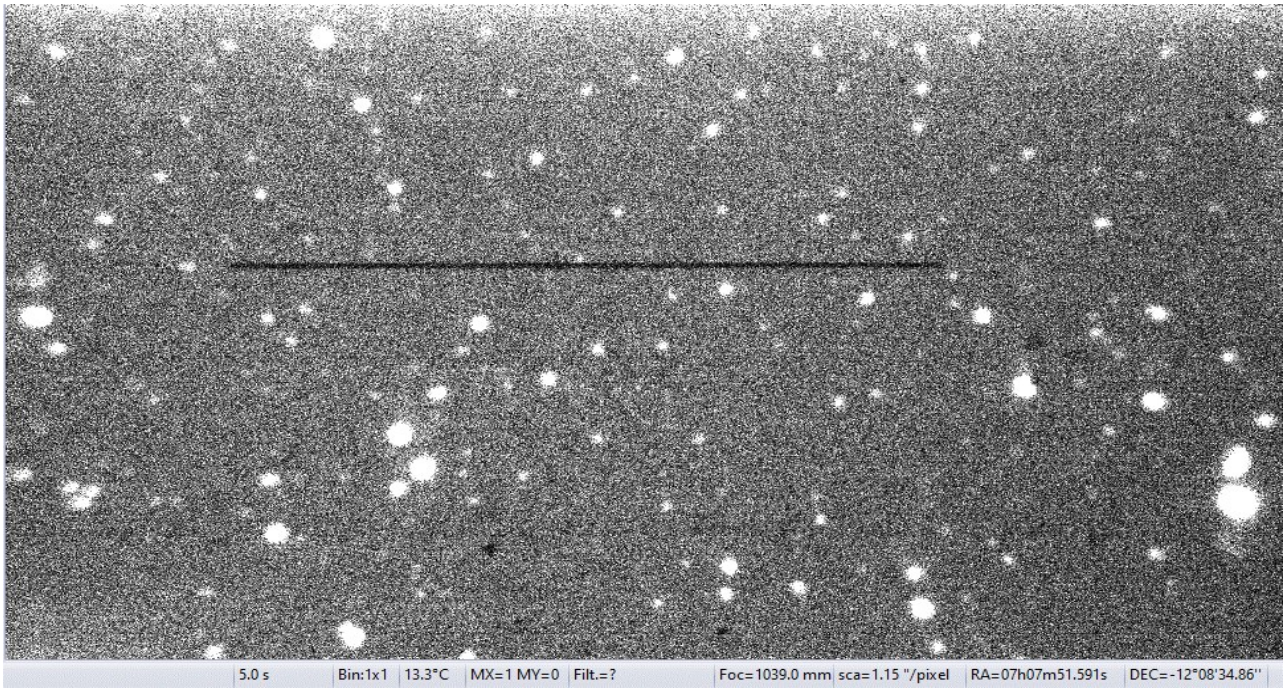
Image SHO "Ciel Austral"

Image SHS

Orange line : position of the slit

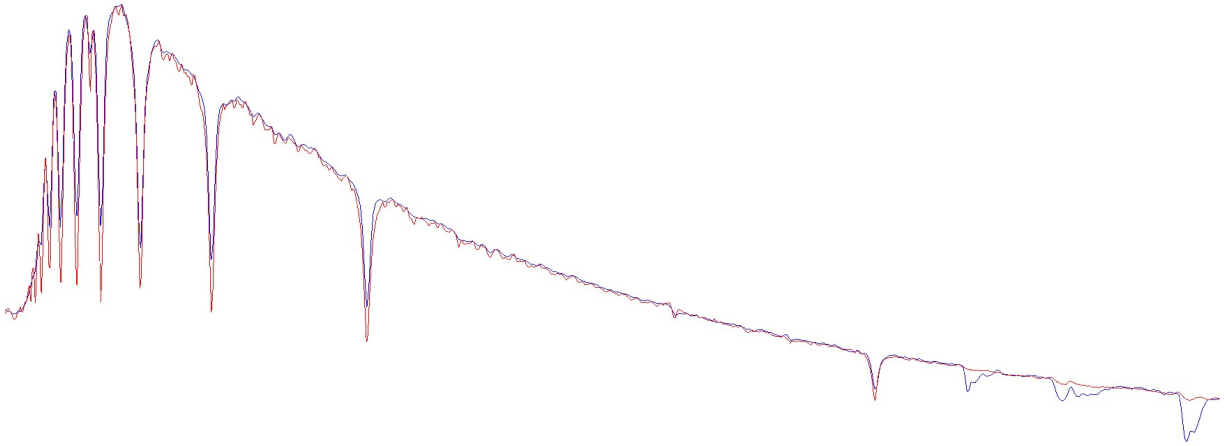


Autoguider image with slit position :

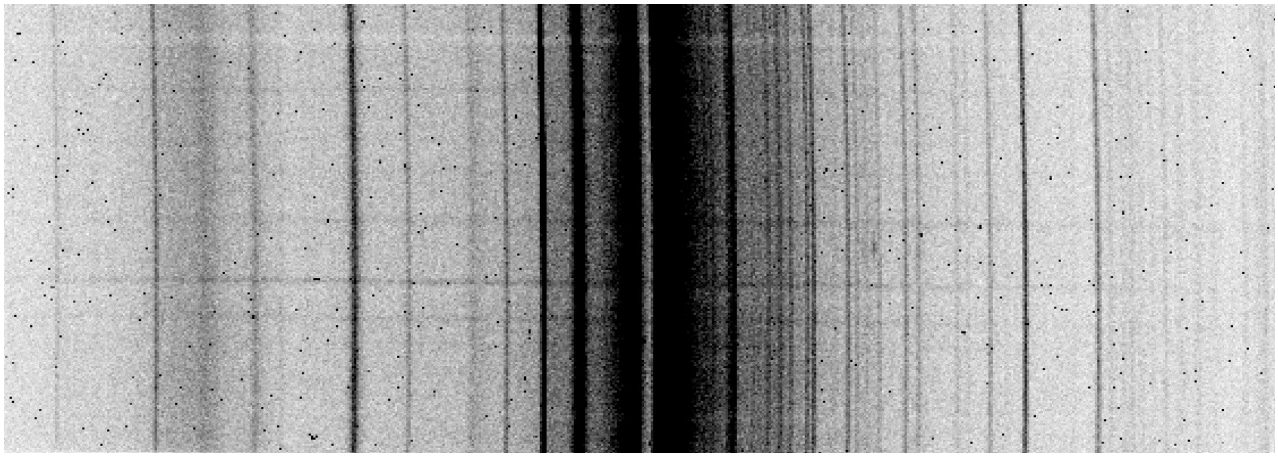


Instrumental Response and 2D Spectrum

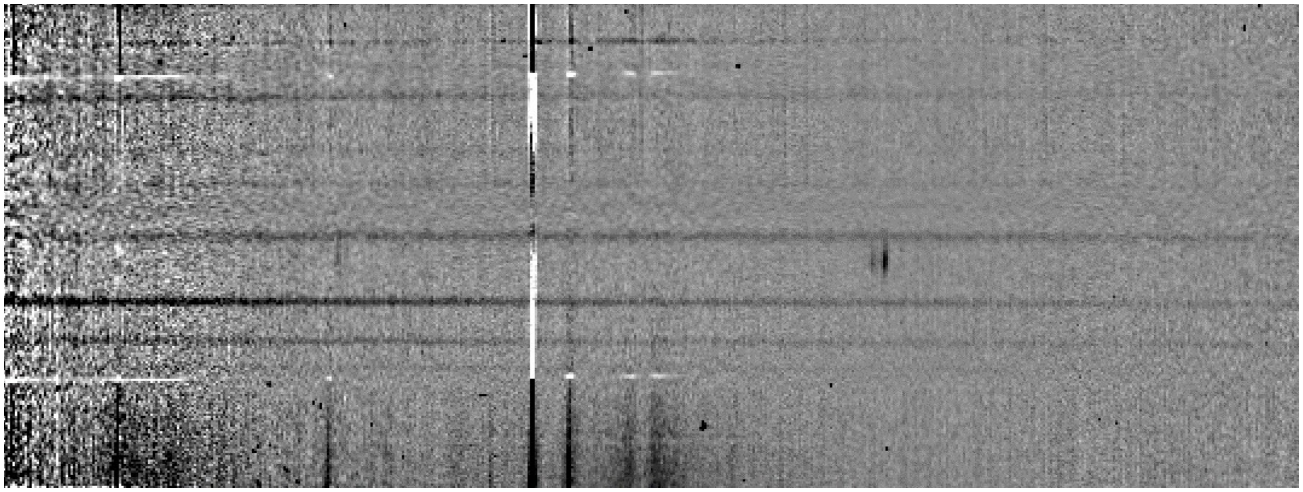
Instrumental response (red = theoritical ref star spectrum ; blue = acquired ref star spectrum with instrumental response correction applied)



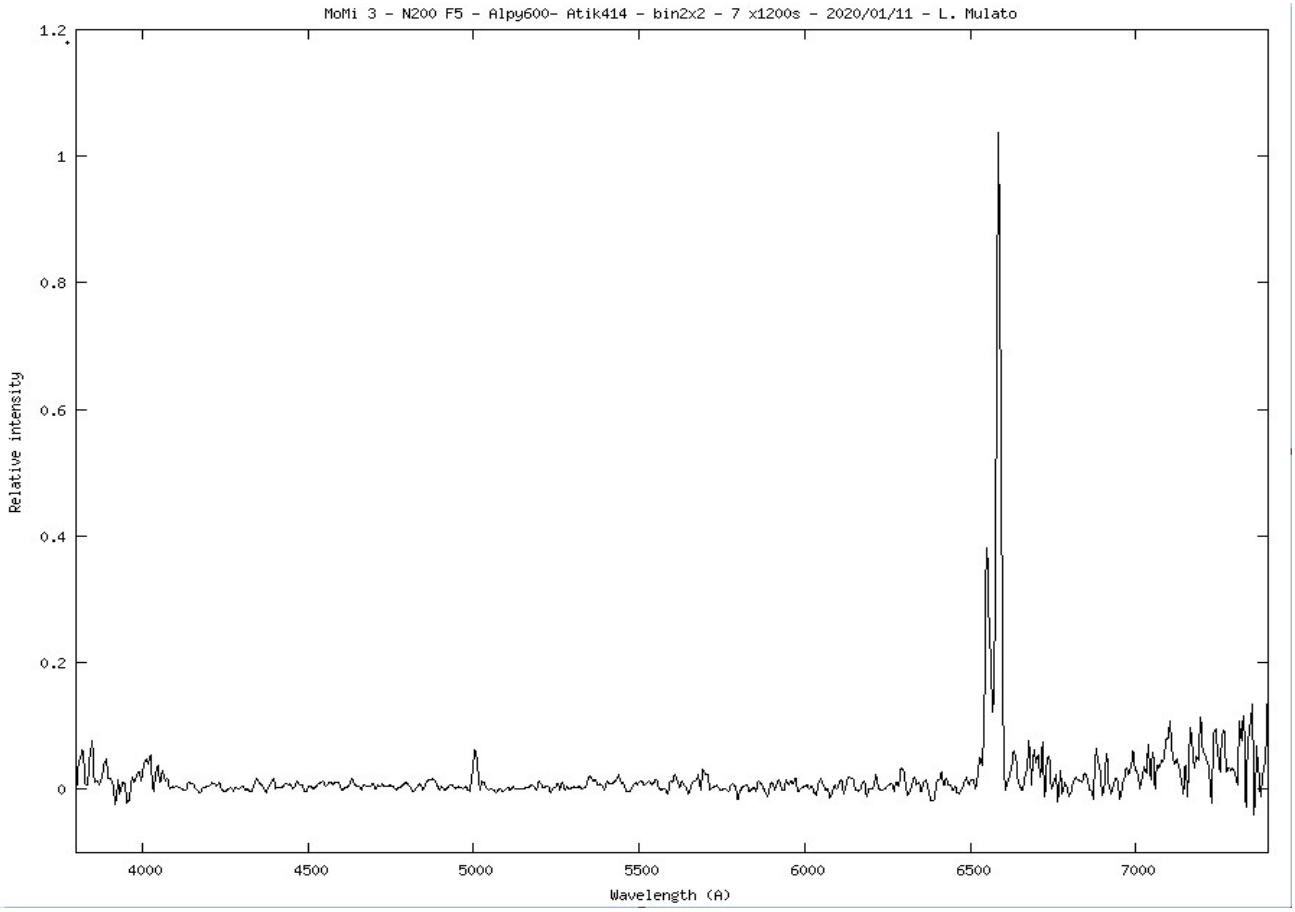
2D Raw spectrum



Processed 2D spectrum



Results



Detected lines : [N II] >> H-alpha, intensity of H-alpha unmeasurable and blended with [N II]6548. [N II]6584/Ha ratio higher than 5 ; [O III] in blue and no [S II] nor H-bêta.
MoMi 3 is a Nitrogen rich amorphous and compact object.
It may be a reddened Type I PN (like RCW69).