



Spectroscopic Record Sheet



Details on acquisitions

Object	Pre 13
Coordinates (J2000)	18:17:30.93 -55:28:41.40
Type	New candidate

Observation date	27.211/08/2022
Weather conditions	/
Observer	2SPOT
Location	Deep Sky Chile (CL)

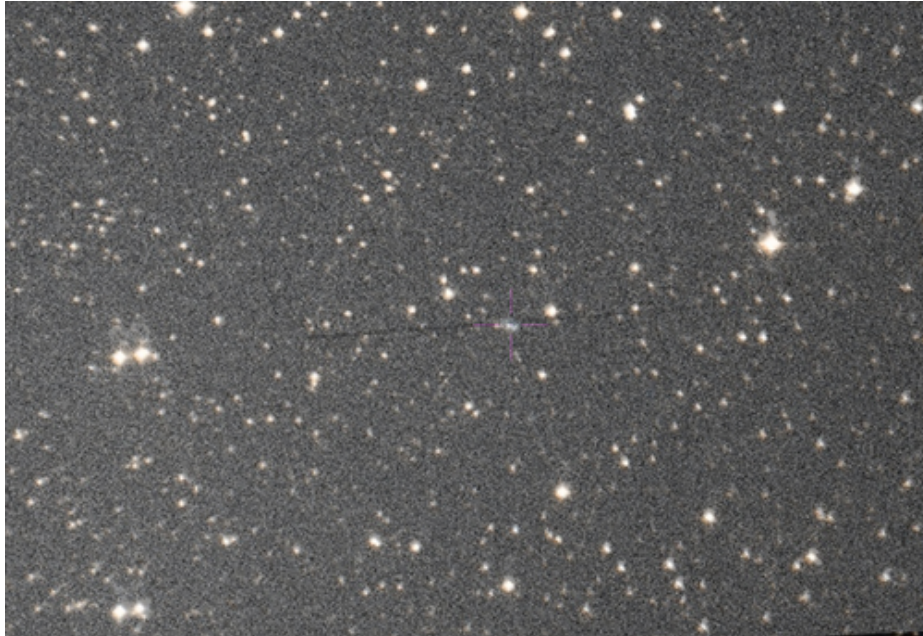
Mount	10 Micron GM3000 HPS
Telescope	Ritchey-Chrétien RC12
Spectroscope	Alpy 600 (23um slit)
Resolution (bin 1x1)	~1nm at 656 nm
Principal camera	Atik 414 EX
Dispersion (bin 1x1)	~0,3 nm/pixel at 656 nm
Cam temperature	-10°C
Binning	1x1
Guiding camera	Atik 314L+
Data acquisition Soft	Prism v10.4.12.911
Data processing soft	ISIS V6.1.1

Exposure on object	6 x 1200 s
Master Dark	Corrected
Master Flat	Corrected
Master Offset	Corrected
Neon-Argon calibration	Corrected
Reference star calib.	HD160263_A0V
Exposure on ref star	6 x 30 s
Ref star Sp. date	27.261/08/2022



Slit position and images

Slit position



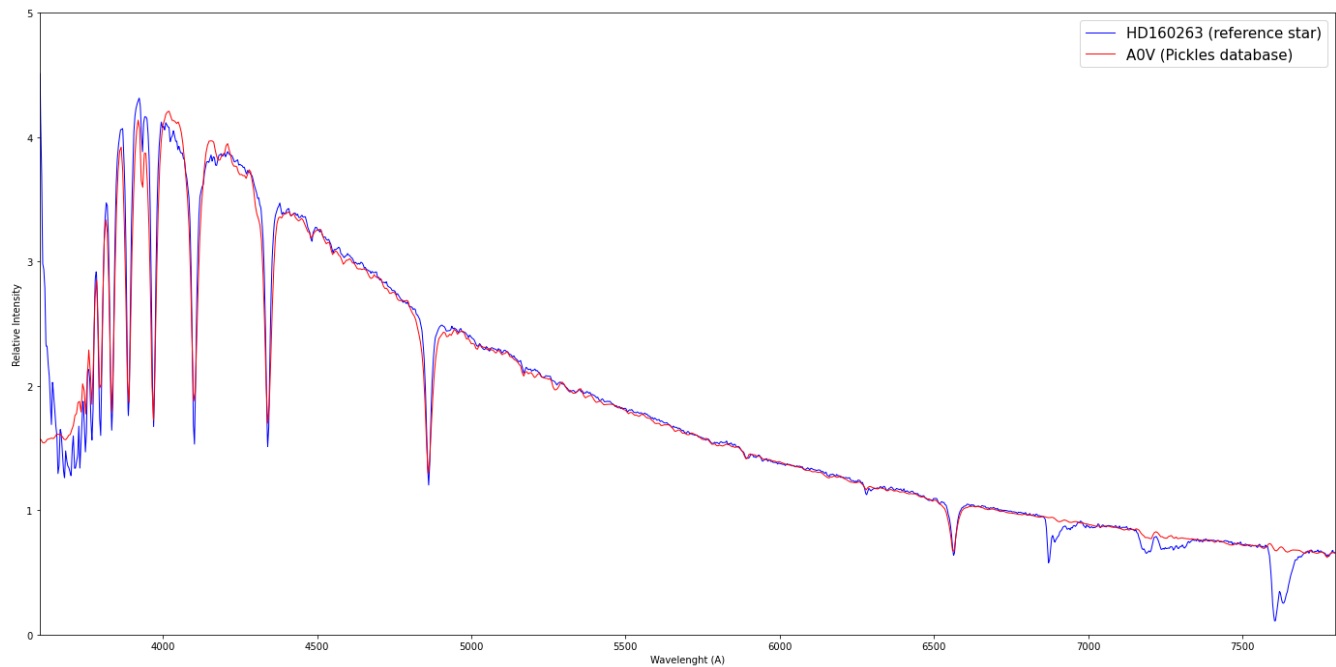
Object picture(s)



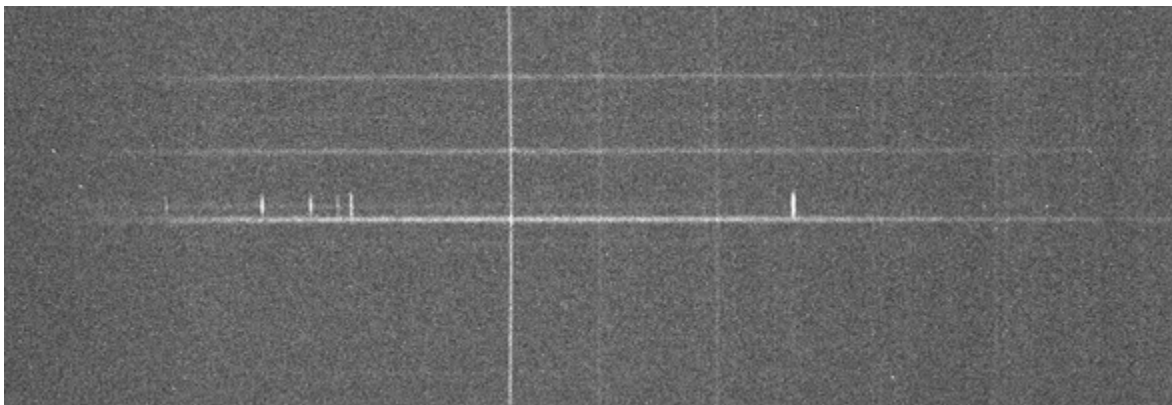


Instrumental Response and 2D Spectrum

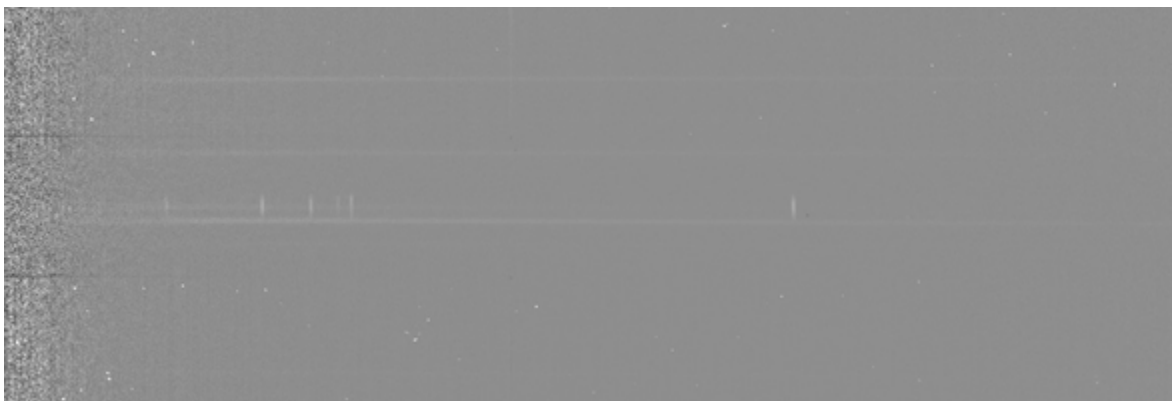
Instrumental response (red = theoretical ref star spectrum ; blue = acquired ref star spectrum with instrumental response correction applied)

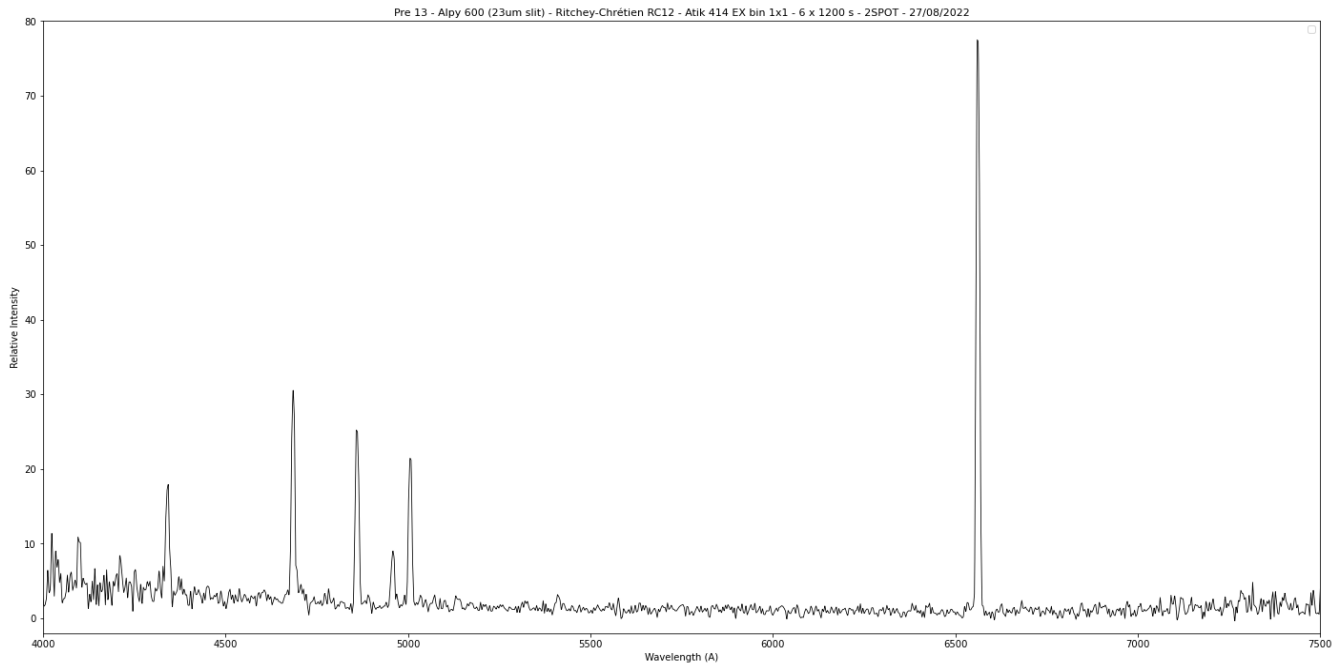


2D Raw spectrum



2D Processed spectrum





Comments

Lines visible:

HI (4101)

HI (4340)

HeII (4685)

HI (4861)

[OIII] (4959,5007)

Ha (6563)

And also maybe [OII] (7320) but difficult to take it out of noise.

With those lines identified and the picture from G Jacoby (HOO),
Pre13 presents True PN characteristics.