



# Spectroscopic Record Sheet



## Details on acquisitions

Object	MPA J0656-2356
Coordinates (J2000)	06:56:00.00 -23:56:49.09
Type	Likely PN

Observation date	10.098/03/2024
Weather conditions	/
Observer	2SPOT
Location	Deep Sky Chile (CL)

Mount	10 Micron GM3000 HPS
Telescope	Newton 300mm F/4
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	2x2
Guiding camera	ASI 178MM
Data acquisition Soft	Prism v11.2.3.21
Data processing soft	ISIS V6.1.1

Exposure on object	10 x 1200 s
Master Dark	Corrected
Master Flat	Corrected
Master Offset	Corrected
Neon-Argon calibration	Corrected
Reference star calib.	HD73495_A0V
Exposure on ref star	14 x 10 s
Ref star Sp. date	10.183/03/2024

## Slit position

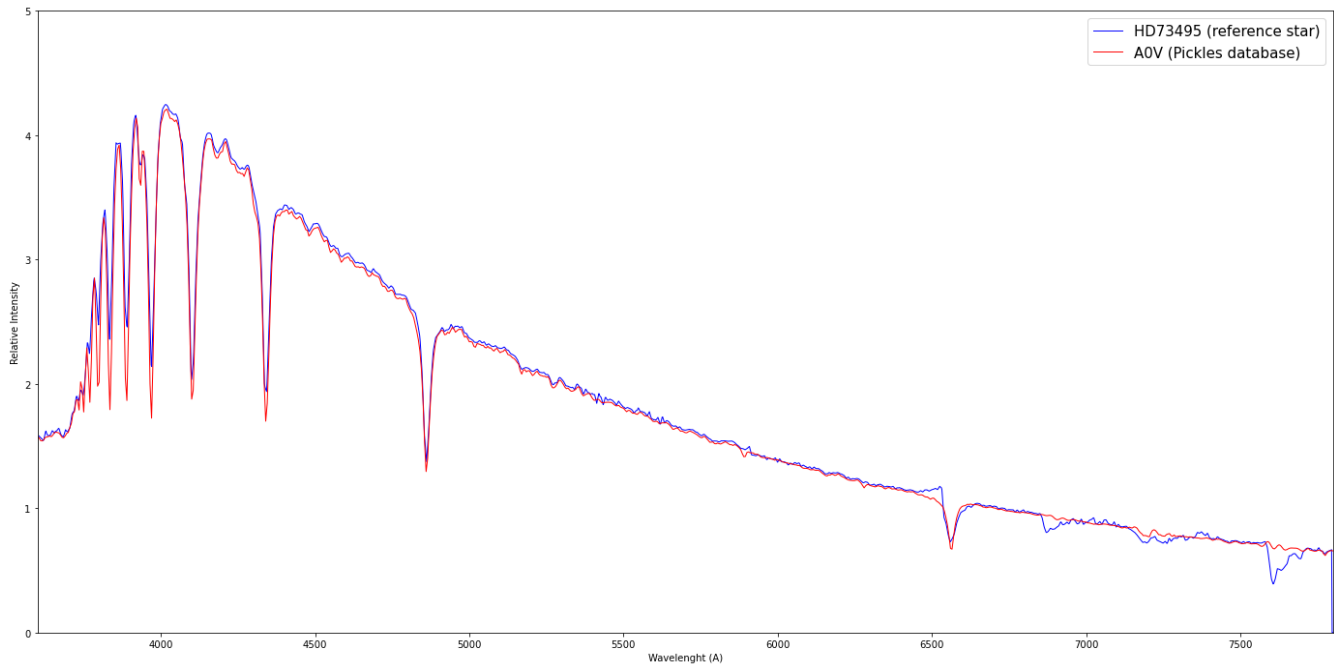


## Object picture(s)

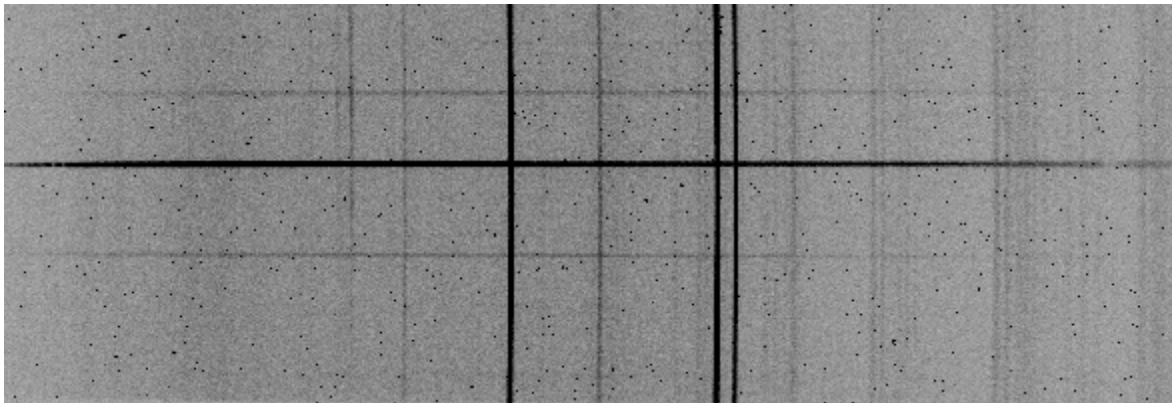


# Instrumental Response and 2D Spectra

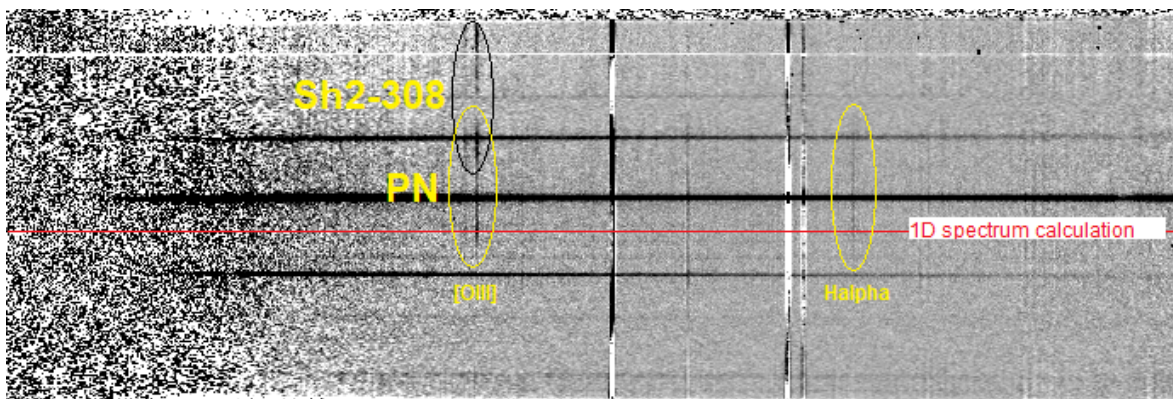
Instrumental response (red = theoretical ref star spectrum ; blue = acquired ref star spectrum with instrumental response correction applied)

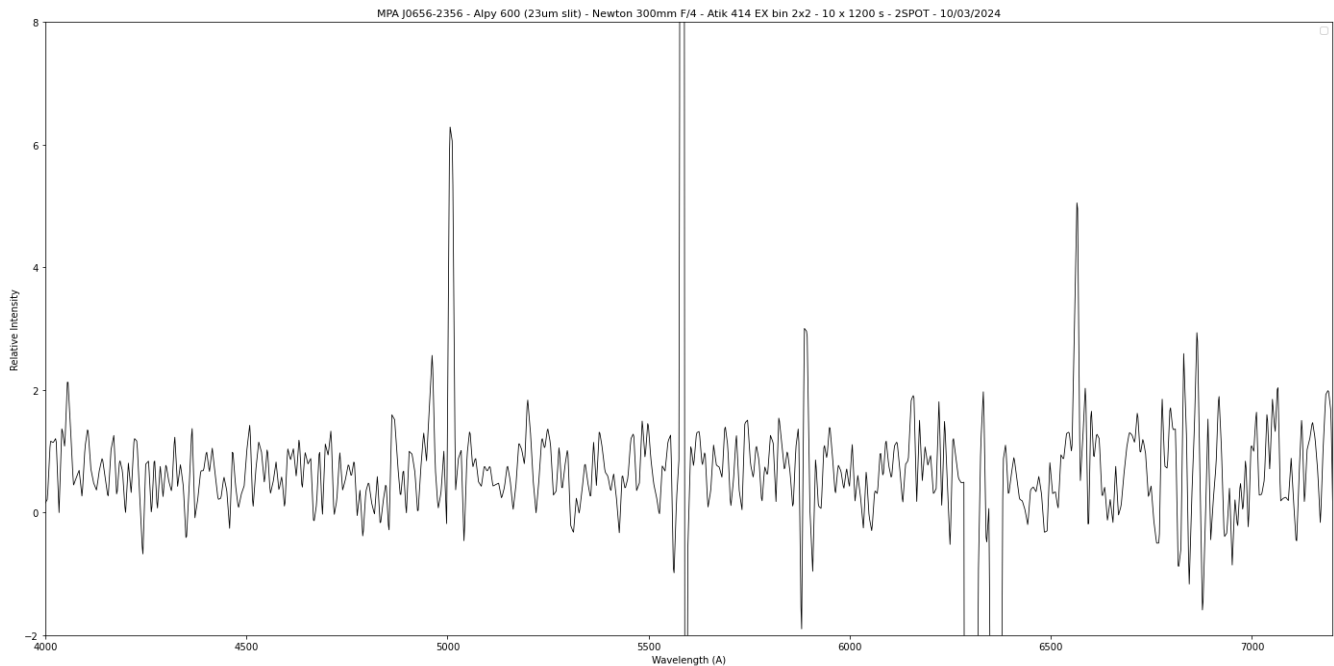


## 2D Raw spectrum



## 2D Processed spectrum





## Comments

Hbeta, [OIII] and Halpha lines detected.

Part of the disk of MPAJ0656-2356 spills over into the nebula Sh2-308.

The horizontal slit of the spectrograph was centered on the eastern part of the disk of MPAJ0656-2356, but also encompasses part of Sh2-308 to the west.

On the 2D spectrum, three distinct parts are therefore observable:

Sh2-308, MPAJ0656-2356+Sh2-308 and MPAJ0656-2356.

The 1D spectrum was calculated only on the eastern part of the disk of MPAJ0656-2356.

This spectrum shows only the signal emitted by the planetary nebula.

MPAJ0656-2356 shows the nebular lines of a true PN.

Note that the Halpha signal was only observed at MPAJ0656-2356, not at Sh2-308.