

1. Spectral calibration

1.1. Method

Oriel Instrument's spectral calibration lamps (Mercury, Xenon) were fitted inside an integrating sphere. Imaging spectrograph was positioned in such a way that exit aperture of the integrating sphere fills field-of-view of the spectrograph. 100 frames were collected, averaged and dark frame was subtracted. 14 spectral peaks were located from the data and Gaussian function was fitted to each peak. Center position and FWHM of the spectral peaks were obtained from the fitted data. Wavelength calibration was calculated using 3rd degree polynomial fit to the spectral peak positions.

1.2. Spectral peaks

PEAK (NM)	DEVIATION (NM)
1013.98	-0.02
1083.83	0.05
1128.71	0.07
1262.34	-0.20
1365.65	-0.13
1473.24	-0.02
1529.58	-0.12
1541.80	0.41
1672.82	0.03
1878.81	0.11
2026.78	-0.34
2147.60	-0.79
2319.80	0.43
2483.22	-0.15

1.3. General Information

PARAMETER	VALUE
Measured by	KKE
File date	02-Dec-2020
Report date	03-Dec-2020
Sensor type	Fenix_SWIR1K
Sensor serial no	360009
Project	NERC
Measurement phase	Delivery

1.4. Measurement result

PARAMETER	RESULT
Wavelength range	973.22 - 2497.55
Mean sampling (nm/pix)	6.222
Dispersion (nm/mm)	206.550
Mean FWHM (nm)	7.659
Data fit method	Gaussian
Acquisition window Top, Left, Height, Width	10, 0, 246, 1024

1.5. Graphs

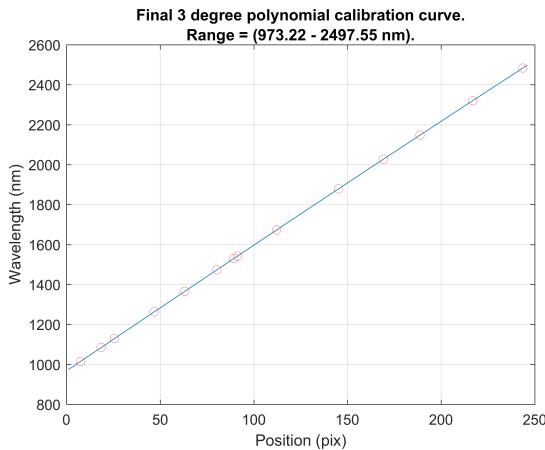


Figure 1.
Spectral calibration curve with spectral peaks found.

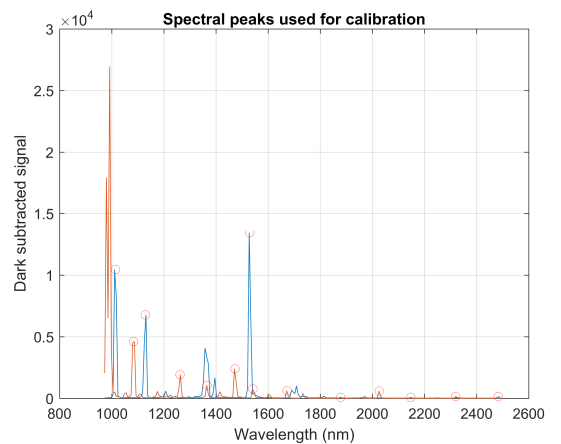


Figure 2.
Measured spectral lamps at the center column.
Calibration peaks are marked with red circles.