ANDOR
an Oxford Instruments company

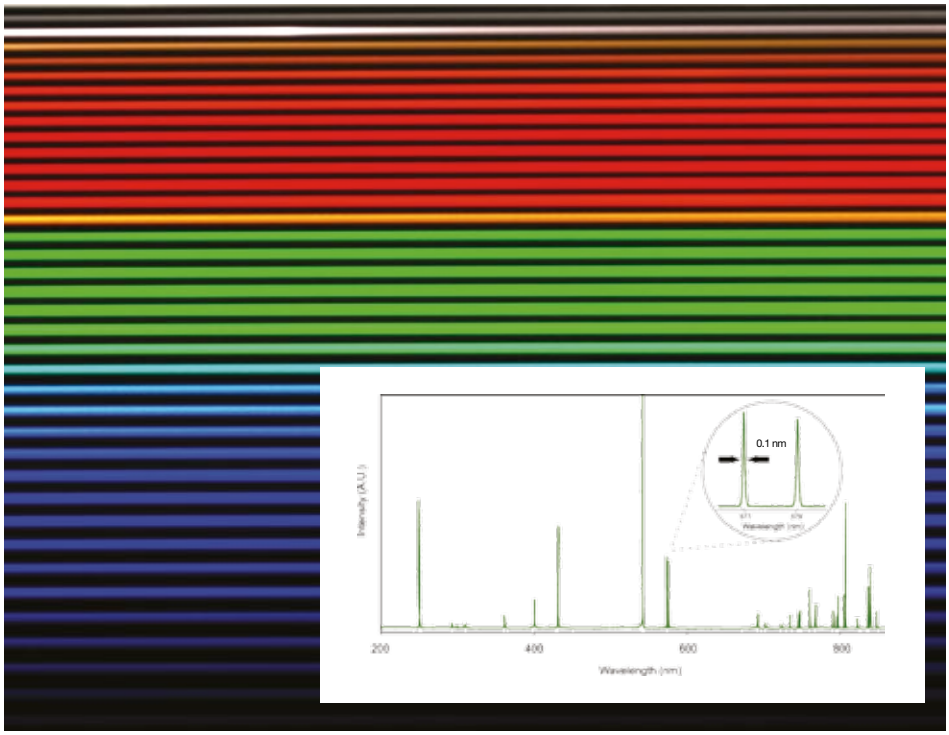
Spectroscopy Solutions

Highlights

- 200 - 975 mm band pass
- Resolution power of up to 6,000 for entire band pass
- Compact and robust design with no moving components
- Patented optical design
- Ultra low cross-talk
- Auto-temperature correction
- N_2 purged
- Pre-aligned detector/spectrograph solution
- Low F/7 aperture
- Wide range of accessories available
- Peak labelling with NIST table

Key Applications

- Laser Induced Breakdown Spectroscopy (LIBS)
- Plasma studies



Mechelle 5000

High band pass Echelle Spectrograph

Andor's Mechelle 5000 spectrograph has been designed to provide simultaneous recording of a wide wavelength range (200 - 975 nm) in one acquisition. It has no moving components and is available in a pre-aligned detector/spectrometer format.

Based on the echelle grating principle, its patented optical design provides extremely low crosstalk and maximum resolution compared with other spectrographs. It is designed to operate with both Andor's iKon CCD camera and the iStar 334 intensified camera in applications such as LIBS and Plasma studies.

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Features and Benefits

200 - 975 nm bandpass	Up to 775 nm simultaneous bandpass acquisition st high resolution
Patented optical design	Ensures maximum resolution and extremely low cross-talk
Auto-temperature correction	Corrects for the variation of prisms optical refractive index with temperature
N_2 purged	Enables maximum throughput in the UV region
Pre-aligned detector/spectrograph solution	Enables fast, efficient experimental set-up
Low F/7 aperture	Highly efficient light collection
Wide range of accessories available	Including fibre optics, slits, collector/collimator, aiming Laser, collector/collimator and calibration lamps
Peak labelling with NIST table	Easy tagging of known atomic species at the press of a button

Sensor Options

ME 5000 Spectrograph Specifications	
Wavelength range (nm)	200 - 975 nm
Focal Length (mm)	195
Aperture	F/7
Spectral resolution (λ/Δλ) [•1] (corresponding to 3 pixels FWHM)	6,000
Wavelength Accuracy	Better than ± 0.05 nm
Optical Adjacent Order Cross Talk	Better than 1 x 10^{-2}
Stray Light	Better than 1.5 x 10^{-4}
Horizontal magnification	0.81
Vertical magnification	1.66

Footnotes

1. The spectral resolution is measured using an Andor DU934 camera. This value is equivalent to a FWHM of 0.04 nm at 200 nm or 0.1 nm at 500 nm, measured using a 50 µm wide slit. When used by the DH334 the typical spectral resolution is 4000.

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