

# H + P SPECTROSCOPY SCIENTIFIC INSTRUMENTATION

## easyLIGHT XUV Innovative compact XUV spectrometer

Our easyLIGHT XUV spectrograph provides aberration-corrected wavelength coverage in the extreme and vacuum ultraviolet spectral region. Based on a normal-incidence geometry, the high-efficiency flat-field grating provides wide-band spectral measurements covering 30 to 200nm. The spectrometer can be used without entrance slit to maximize light collection for a range of source distances.



### Direct imaging of the source

- images the source directly onto the detector, does not require a narrow entrance aperture
- ~20 times more light collection than standard versions, resulting in a signal-to-noise figure improved by the same ratio
- in some experiments, this improved signal strength is the crucial step for realizing a measurement at all

### Accuracy and efficiency

- absolute grating position monitoring for maintaining grating alignment
- grating controllable by software
- highly efficient aberration-corrected grating
- double stray-light filter
- compact design, small footprint

### Special solutions

- non-magnetic instruments
- UHV configurations
- etc

### Customization

- every spectrometer is customized to exactly match the desired application, e. g.:
  - interfacing to experimental chambers
  - adaption of the source distance
  - integration of customer-supplied detectors
  - user-defined filter mounts

contact • DR. HOERLEIN + PARTNER GbR  
 Forggenseestr. 25  
 68219 Mannheim  
 Germany  
<http://www.hp-spectroscopy.com>

email • [info@hp-spectroscopy.com](mailto:info@hp-spectroscopy.com)  
 tel • +49 176 20949282  
 tax id no. • DE291837180  
 iban • DE45 20041144 0 7899016 00  
 bic • COBADEHD044

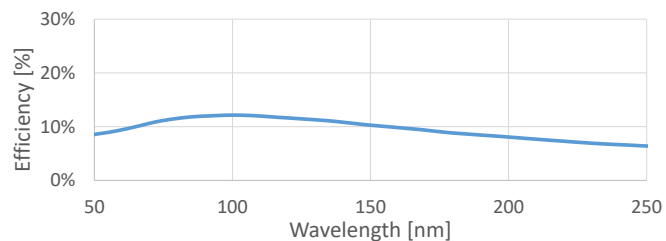
## Characteristics

	easyLIGHT XUV	maxLIGHT	maxLIGHT plus
Flat-field grazing-incidence spectrograph		●	●
Flat-field normal-incidence spectrograph	●		
Flexible choice of detectors: x-ray CCD or MCP/fiber	●	●	●
Operating pressure <math><10^{-6}</math> mbar	●	●	●
Customizable according to user requirements	●	●	●
Proprietary slit-less design for high efficiency	●	●	●
Grating blaze for additional efficiency increase	●		●
Motorized closed-loop 3D grating positioning			●
Manual 1D grating positioning		●	
Motorized closed-loop 1D grating positioning	●		
Filter insertion unit	○		●
Vacuum gate valve	○		●
Entrance slit continuously variable	○	○	○

	XUV grating
Wavelength [nm]	30 - 200
Operation mode	slit-less
Source distance [m]	flexible
Deviation angle [°]	94
Flat-field size [mm]	75
Dispersion [nm/mm]	≈ 2.0
Resolution [nm]	< 0.1

\* Other configurations (spectral range, etc) available upon request.

## Grating efficiency



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