

# H + P SPECTROSCOPY SCIENTIFIC INSTRUMENTATION

## easyLIGHT

### Innovative compact VUV spectrometers

Our easyLIGHT spectrograph provides aberration-corrected wavelength coverage in the vacuum ultraviolet spectral region. Based on a normal-incidence geometry, it offers spectrograph and monochromator functionality. The high-efficiency gratings can be rotated about their apexes by a high-accuracy positioning system, resulting in a wavelength selection accuracy at the exit slit of  $<0.1$  nm. Entrance and exit slit widths can be set in the range of 0.01 to 4 mm by micrometer screws or a motorized actuator (optional).



<p><b>Versatility</b></p> <ul style="list-style-type: none"> <li>▪ spectrograph and monochromator in one device</li> <li>▪ slits continuously adjustable manually or motorized (optional)</li> <li>▪ compact and cost-effective</li> </ul>	<p><b>Efficiency and accuracy</b></p> <ul style="list-style-type: none"> <li>▪ high accuracy wavelength selection by closed-loop micro-precision grating actuator</li> <li>▪ grating positioning controllable by software</li> <li>▪ highly efficient aberration-corrected grating</li> <li>▪ double stray light filter</li> </ul>
<p><b>Special solutions</b></p> <ul style="list-style-type: none"> <li>▪ non-magnetic instruments</li> <li>▪ UHV configurations</li> <li>▪ etc</li> </ul>	<p><b>Customization</b></p> <ul style="list-style-type: none"> <li>▪ every spectrometer is customized to exactly match the desired application, e. g.:             <ul style="list-style-type: none"> <li>▪ interfacing to experimental chambers</li> <li>▪ adaption of the source distance</li> <li>▪ integration of customer-supplied detectors</li> <li>▪ user-defined filter mounts</li> </ul> </li> </ul>

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

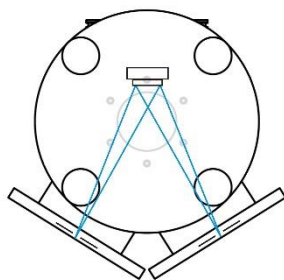
## Characteristics

	easyLIGHT	maxLIGHT	maxLIGHT plus
Flat-field grazing-incidence spectrograph		●	●
Normal-incidence spectrograph and monochromator	●		
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 grating rotation	●		
Filter insertion unit			●
Vacuum gate valve			●
Entrance and exit slits continuously variable	●	○	○

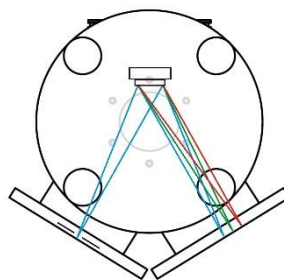
	XUV grating	VUV grating
Wavelength [nm]	on request	100 - 300
Operation mode		entrance slit
Source distance [m]		flexible
Dispersion [nm/mm]		$\approx 4.0$
Resolution [nm]		$< 0.1$
Wavelength accuracy [nm]		$< 0.1$
Deviation angle [°]	64	
Focal length [mm]	200	
f/#	4.2	

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

## Operation modes



Scanning monochromator



Spectrograph

## Grating efficiency

