

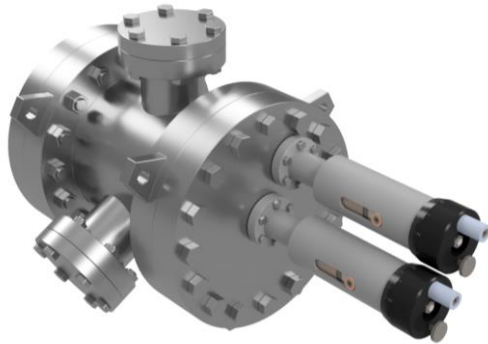
# H + P SPECTROSCOPY SCIENTIFIC INSTRUMENTATION

## monoLIGHT

### Innovative compact VUV monochromator

The monoLIGHT is a toroidal grating monochromator for laboratory VUV sources, compatible with most models available on the market. In its standard configuration, it is optimized for high efficiency at both He I and He II. Utilizing the full solid angle of the source, it gives extremely high intensity at the sample even after monochromatization. Complete separation of He I  $\alpha$  and He I  $\beta$  is achieved while maintaining a 1 meV bandwidth.

The monochromator is easily adapted to a broad range of sources and applications. We choose the grating according to your desired spectral line and manufacture the length of both the incoming and the outgoing arms to fit your experiment.



|  |   |
|--|---|
| <p><b>Versatility</b></p> <ul style="list-style-type: none"> <li>▪ gratings for many discharge gases available</li> <li>▪ two grating actuators:               <ul style="list-style-type: none"> <li>▪ wavelength tuning</li> <li>▪ beam positioning</li> </ul> </li> <li>▪ compact and cost-effective</li> </ul> | <p><b>Efficiency and accuracy</b></p> <ul style="list-style-type: none"> <li>▪ high efficiency at He II and He I</li> <li>▪ photon flux of source preserved for application</li> <li>▪ Complete separation of He I <math>\alpha</math> and He I <math>\beta</math></li> </ul>   |
| <p><b>Special solutions</b></p> <ul style="list-style-type: none"> <li>▪ automated wavelength selection, motorized grating position</li> <li>▪ differential pumping</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>▪ adaptation to VUV source</li> <li>▪ length of incoming and outgoing arm manufactured to fit the experiment</li> </ul> </li> </ul> |

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## Characteristics

- Toroidal grating monochromator
- High flux
- Compact footprint
- Input / exit ports CF35
- Pump port CF100
- Bake-out temperature <120°C
- Customizable according to user requirements

|   | He II grating | other gratings |
|---|---------------|----------------|
| Groove density [L/nm]                   | 1200          | on request     |
| Efficiency He I, 1 <sup>st</sup> order  | 10%           |                |
| Efficiency He II, 1 <sup>st</sup> order | 20%           |                |
| Efficiency He II, 2 <sup>nd</sup> order | <0.5%         |                |

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

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