

# SIMTRUM

## COMPACT NO-SLIT FLAT-FIELD XUV SPECTROMETER



XUV  
VUV

## Features

### Direct imaging of the source

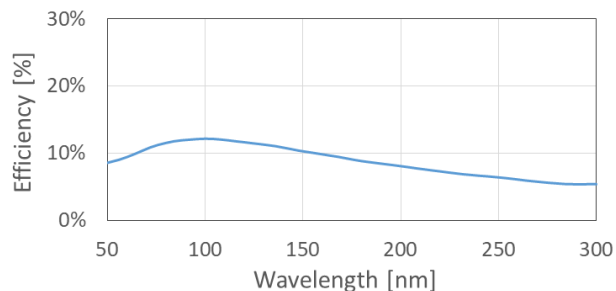
- flat-field spectrometer for the 30 to 250nm spectral range
- no need for an alignment-sensitive narrow entrance slit
- ~20x more light collection than standard spectrometers, resulting in a proportional improvement of the signal-to-noise

### Accuracy and efficiency

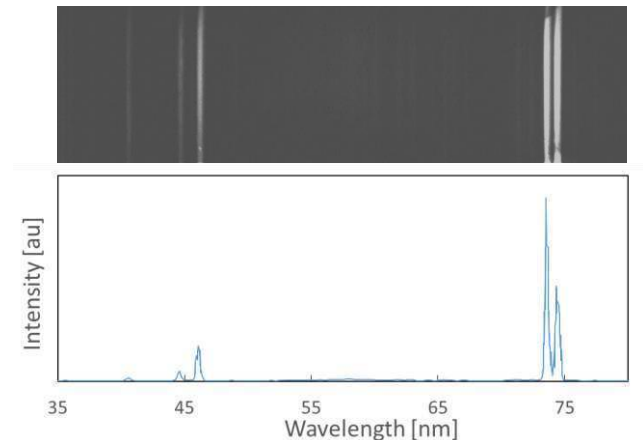
- absolute grating position monitoring for maintaining grating alignment
- grating controllable by software
- highly efficient aberration-corrected flat-field grating
- double stray-light filter
- most compact spectrometer in its range

### Customization

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



Grating efficiency into first order of diffraction. Total system efficiency ~20x higher than conventional spectrometers due to proprietary no-slit technology



Sample spectrum from photoionized plasma of neon gas, produced by nanosecond mid-infrared pulses and filtered by a 750um-thick aluminum foil

## Specifications

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Topology	aberration-corrected flat-field spectrometer
Wavelength range	30-250nm
Source distance	flexible
Detector	CCD or MCP/CMOS
Operating pressure	$<10^{-6}$ mbar (UHV version available)
No-slit technology	yes
Entrance slit	optional
Grating positioning	motorized closed-loop
Spectral filter insertion unit	yes
Control interfaces	USB or Ethernet
Software	Windows UI / Labview, VB, C, C++ SDK
Customizable	fully customizable
Options	non-magnetic, rotated geometry, etc

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Dispersion	$\sim 2.0$ nm/mm
Resolution	$<0.1$ nm
Flat-field size	75mm
Deviation angle	94°