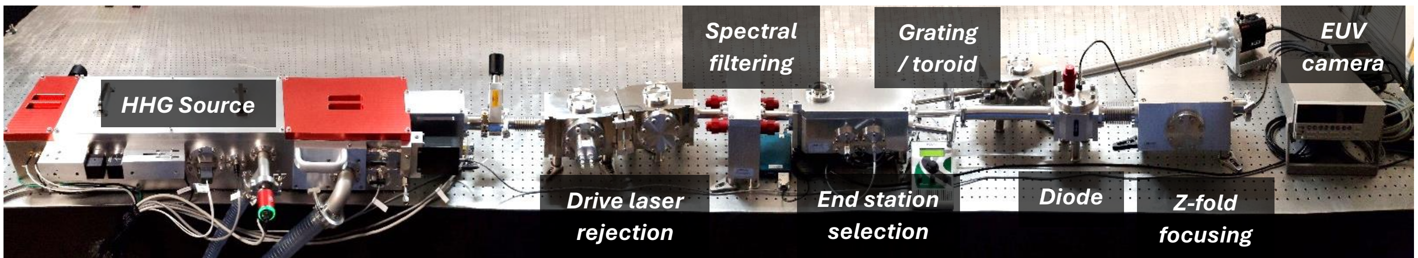
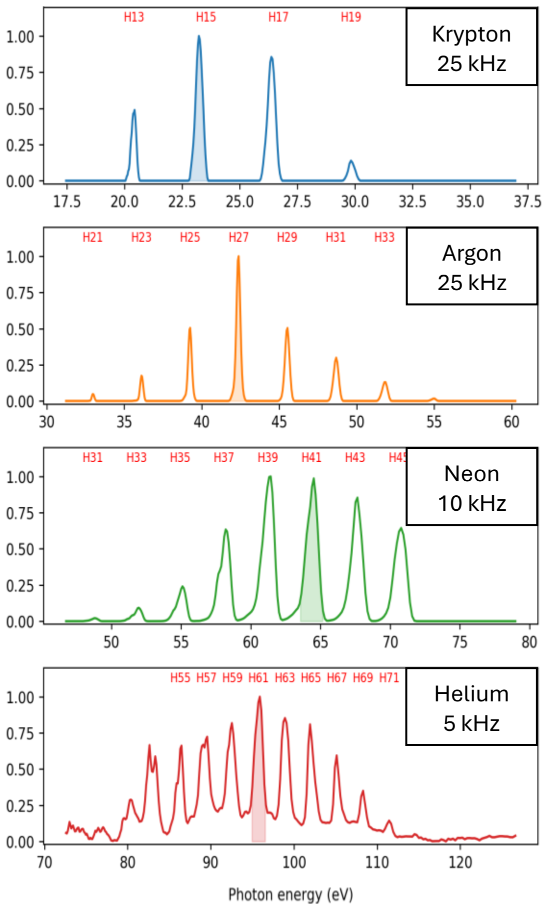
XUUS 5

KMLabs' **XUUS**™ e**X**treme **U**ltraviolet **U**ltrafast **S**ource and **A**rterium™ beamline modules

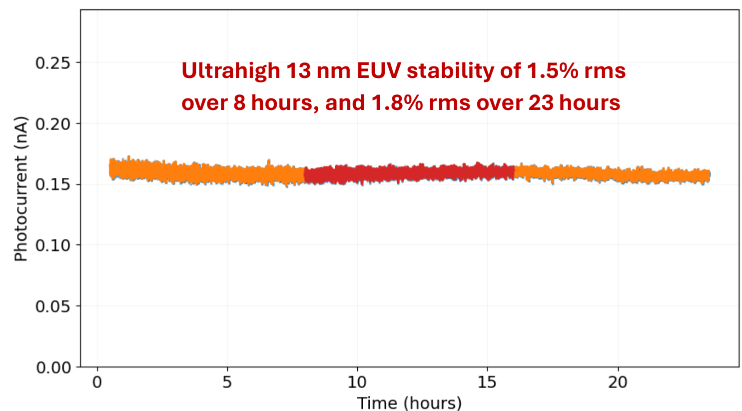
- A full solution ultrafast EUV source and beamline for your lab





XUUS 5 performance data when driven with a KMLabs RAEA 2.0 amplifier system.
*System is optimized for the shaded harmonic

EUV XUUS Source Specifications	
Wavelength Range (~0.8µm pump)	~10-60 nm
Flux	Up to 10^{12} ph/s
Intensity Stability (>8hrs)	<5% RMS
Pointing Fluctuations (>8hrs)	<5 µrad RMS
Beam Height	4.5" (1114.3 mm)
Dimensions (mm)	1200 L x 330 W x176 H



Photocurrent corresponding to the EUV spectrum centered at 13 nm (see lower left plot)

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Please check back with us or visit our website for the latest updates and specifications.

XUUS 5

Coherent extreme-ultraviolet (EUV) “tabletop-scale x-ray laser” light sources are now a reality. XUUS 5 is KMLabs’ fifth generation of EUV conversion platform designed to offer “black box” conversion of ultra-short pulse laser light to short wavelengths using the high harmonic generation (HHG) process.

KMLabs’ patented use of waveguide HHG ensures repeatable, highly- stable and bright generation of EUV light with orders of magnitude lower gas usage compared with earlier HHG implementations. The XUUS HHG system has a proven track record of utility in a variety of applications including photoemission and coherent diffractive imaging.

Applications

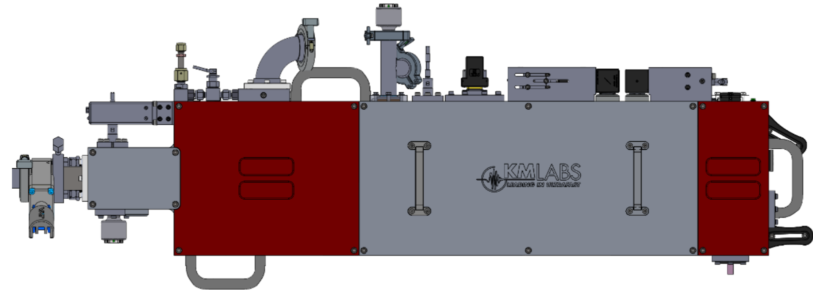
- Photoelectron Spectroscopy
- Coherent Diffractive Imaging
- Materials Science
- Time Resolved EUV Spectroscopy
- Attosecond science
- Nanoscale metrology

Features

- High Brightness EUV conversion
- High Efficiency EUV conversion
- Ideal for use with KMLabs’ RAEA Ti:sapphire laser, can be paired with other manufacturers lasers
- Low Gas Usage
- Active beam stabilization translates to stable source position and intensity
- Incorporates decades of experience in applications of HHG sources

Options

- Optimized for Long Wavelength (~25-60 nm) or Short Wavelength (~10-50 nm) spectral bands
- Ti:sapphire (~780 nm) or Yb (~1μm) drive lasers
- Contact us for other options



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