

High Harmonic Generation

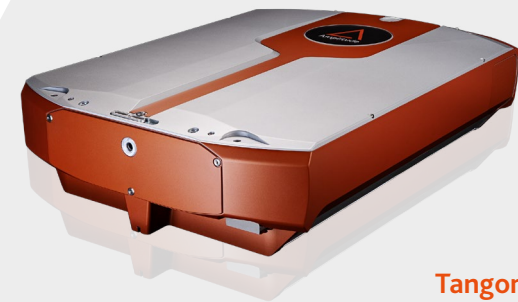
Versatile Extreme UltraViolet Light Source

As global leader in ultrafast laser for industrial, medical and scientific applications Amplitude Laser Group now offers a versatile VUV/XUV and soft-Xray laser-based light source. this novel complete solution is compatible with the broadest ultrafast laser portfolio commercially available, offering high pulse energy or state-of-the-art photon flux at high repetition rates.

Over the past decade and more Amplitude Laser Group has been instrumental in providing laser sources for high harmonic generation sources around the globe.

For example, the ARCO high energy Ti:Sapphire amplifiers with (optional) CEP stabilization and repetition rate up to 10 kHz are a workhorse in various laboratories and research institutions and contribute to the advancement of e.g., ultrafast dynamics studies, and attoscience.

Amplitude also recognized early on the importance of scaling the laser repetition rate for numerous high throughput applications - we have been instrumental in demonstrating a MHz high harmonic generation source as early as a decade ago. Drawing on our extensive expertise and the industry leading robustness and performance of our ultrafast laser portfolio, we are now introducing to the market a unique turn-key & state of the art coherent VUV & soft X-ray complete solution for your demanding applications.



Tangor



Compress

Applications

Industry:

- > Semiconductor mask inspection
- > Coherent diffraction imaging
- > Photolithography

Science:

- > Photoemission spectroscopy
- > X-ray absorption spectroscopy
- > Attoscience

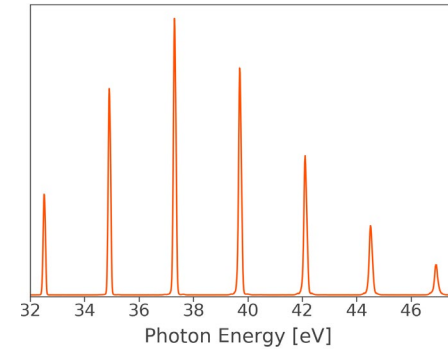
Key Features

- > Turn-key
- > State of the art photon flux
- > High spatio-spectral purity
- > Industry grade design for 24/7 operation

Specifications

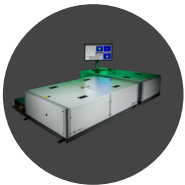
Photon Energy	From 15eV to 165 eV	21 eV	95 eV
Wavelength	From 7.5 nm to 80 nm	59 nm	13 nm
Photon Flux	Up to 10 ¹⁴ photons/s		Up to 10 ¹⁰ photons/s
Average Power	Up to mW		Up to μW
Repetition Rate	Single shot up to 10 MHz		
Pulse Duration	Few cycle to 500 fs		
Bandwidth	< 20 meV to 1 eV		

The exact output specifications depend on the laser system of choice. The HHG source is versatile, please contact us for more details.



Typical spectrum produced

Compatible Lasers and Options



Arco



Magma



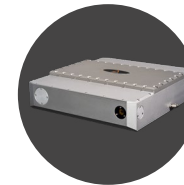
Tangerine



Tangor



Tangor 300



Compress



Mango

