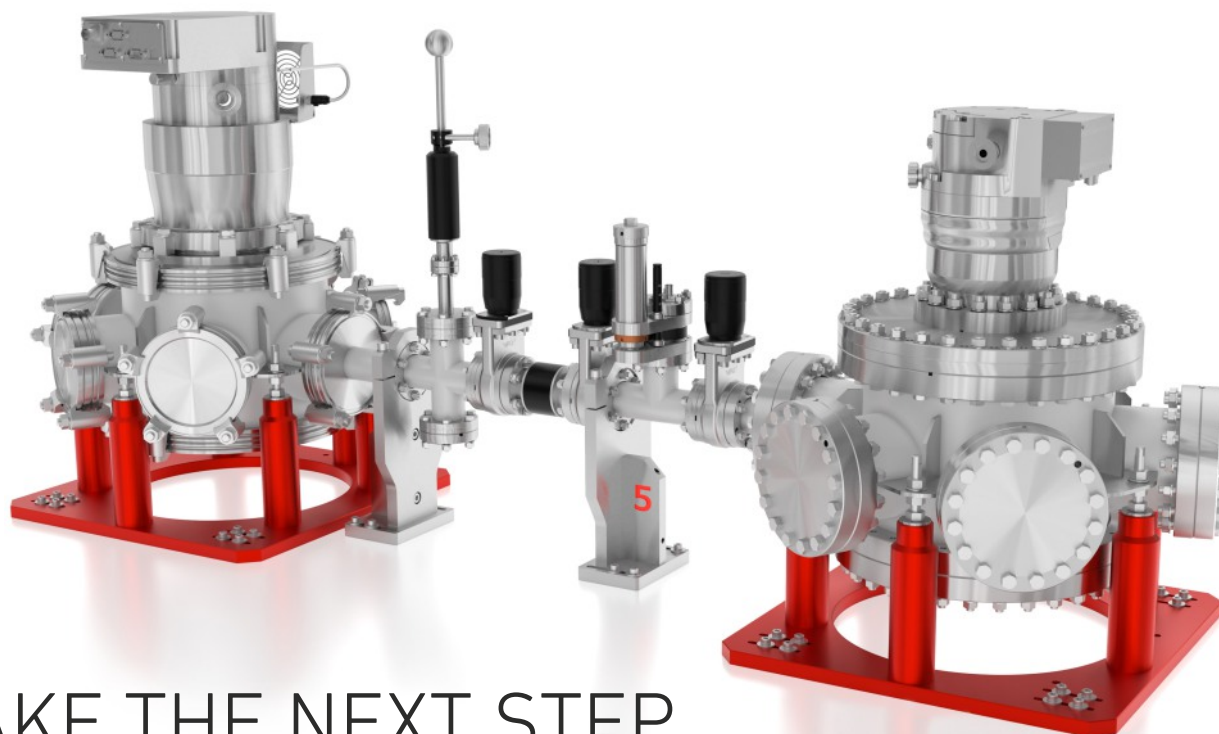


# MOONLANDER

## HHG-50



## TAKE THE NEXT STEP

The Moonlander HHG is an efficient coherent EUV source for time-resolved spectroscopy such as ARPES. Driven by our high-power White Dwarf HE OPCPA, the Moonlander HHG-50 provides high photon flux at high repetition rates in a robust, reliable design.

### PHOTON ENERGY

21 eV ————— 50 eV

### REPETITION RATE

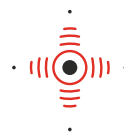
100 kHz ————— 300 KHz

### PUMPED BY

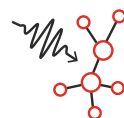
White Dwarf HE OPCPA



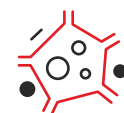
• ARPES



• Inspection in EUV



• Strong-field physics



• Bioparticle imaging  
• Nanoparticles and clusters



• Attosecond dynamics  
in solids and gases

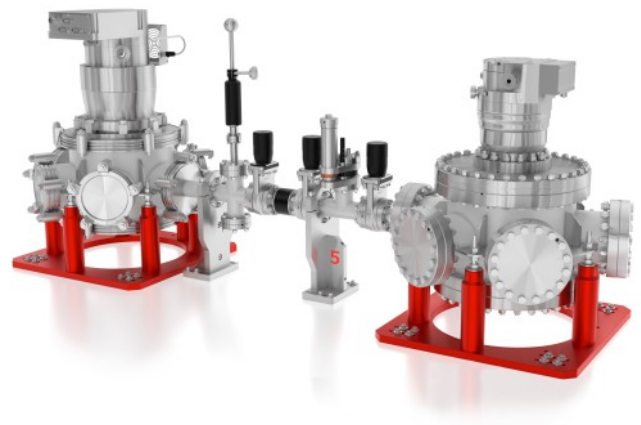
# PRODUCT SPECIFICATIONS

## Moonlander HHG-50

Driver inclusive	White Dwarf HE OPCPA at 400 nm or 800 nm
Photon energy	21 ... 50 eV
Wavelength	24 ... 59 nm
Spectral bandwidth (FWHM)	ca 100 meV depending on driver
Photon flux at source	> $5 \times 10^{12}$ ph/sec @ 38 eV
Photon flux filtered (single-harmonic)	> $1 \times 10^{12}$ ph/sec @ 38 eV
Repetition rate	100 kHz, higher on request
Focusing and steering	on request
Pump-probe extension	optionally based on White Dwarf HE OPCPA
User interface	motor control for target position and target camera, remote gas pressure control, diode for EUV flux measurement

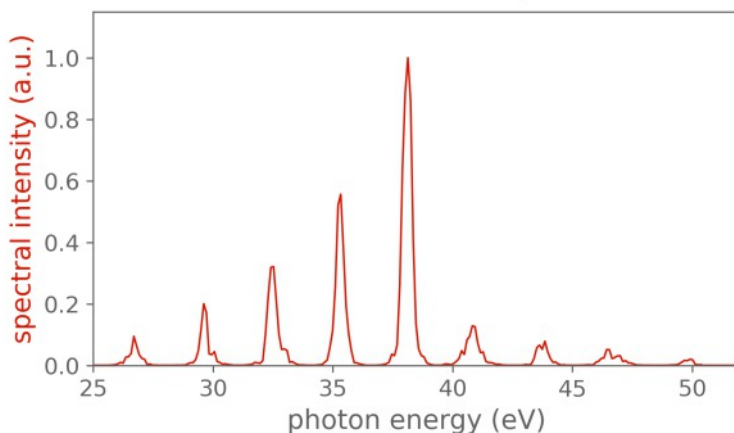
## HIGHLIGHTS

The Moonlander HHG-50 is a high flux coherent EUV source for time-resolved spectroscopy such as ARPES. Our White Dwarf HE OPCPA serves as an ultrashort driver at 400 nm or 800 nm with excellent temporal contrast and clean pulse profile to drive stable and efficiently higher harmonics. Hence, the Moonlander HHG-50 provides high photon flux at high repetition rates with long-term stable operation based on a robust, reliable design. A second, synchronized optical output from UV to mid-IR can be provided with our White Dwarf HE OPCPA, hence offering a full pump-probe suite to take the next step in time-resolved photoelectron spectroscopy.



## PERFORMANCE EXAMPLES

Moonlander HHG-50 spectrum



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