

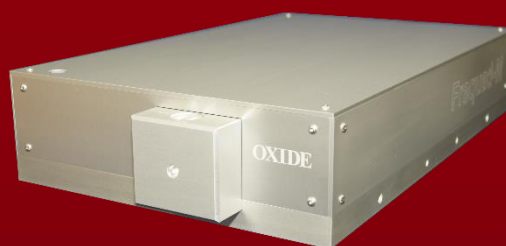
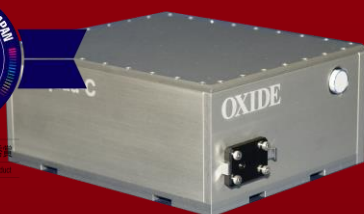
# Laser Solution Provider

# OXIDE

## High-performance lasers for ultra-high resolution ARPES



レーザー学会産業界優秀賞  
Laser Industry Award for Excellent Product



## Features

Continuous wave DUV laser sources

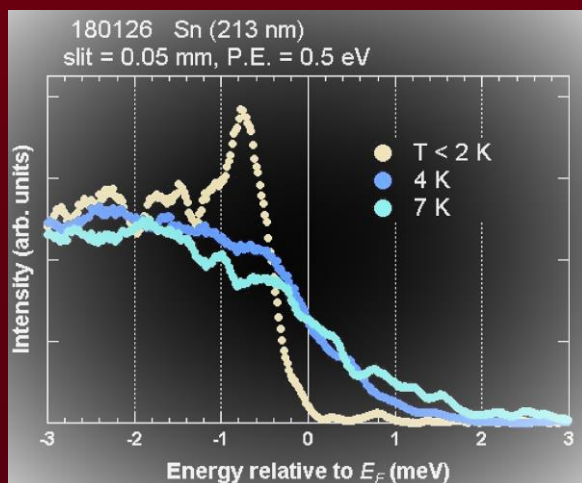
Wavelengths 213nm (5.8eV), 266nm (4.7eV)

Excellent beam quality

Compact geometry (350mm × 590mm × 124mmH)

Long life and stable operation

## < 0.1 meV measurement resolution



ARPES Spectra of Sn

### Measurement parameters

Photon energy **5.8 eV**

Sample temp. **< 2K**

$\Delta E$  **62.5  $\mu\text{eV}$**

Acquisition time **< 5 min.**

Data courtesy of Shin group, Univ. Tokyo ISSP

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# Specifications

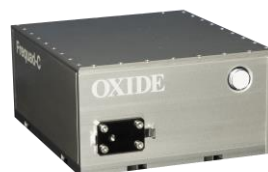
Item#		213 nm	266 nm
Optical	Wavelength	213 nm (5.8 eV)	266 nm (4.7 eV)
	Output Power	1 mW	2.0 / 1.0 / 0.7 / 0.5 / 0.3W / 50 mW / 20 mW
	Linewidth	< 1MHz (0.15 fm)	< 1MHz (0.15 fm)
	Power Stability	TBD	< ± 1 % / 8 hrs
	Extinction Ratio	> 100:1	> 100:1
	Polarization	Vertical, Linear	Vertical, Linear
	Beam Diameter	3 mm ± 0.3 mm	3 mm ± 0.3 mm
	Divergence (1/e <sup>2</sup> )	< 0.2 mrad	< 0.2 mrad
	Ellipticity	≥ 85 %	≥ 85 %
General	Power Supply	AC 100-240V 50/60Hz	AC 100-240V 50/60Hz
	Power Consumption	TBD	< 340 W
	Cooling	Air	Water or Air



Frequad-HP  
266nm, 0.7-2.0 W  
240 x 840 x 160 mm



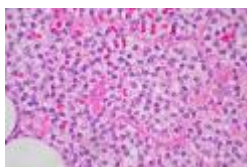
Frequad-M  
266nm, 0.3-1.0 W  
350 x 590 x 124 mm  
(213-nm laser is designed In the same size)



Frequad-C  
266nm, 20-50 mW  
153 x 202 x 79 mm

## Applications

- Photoemission Spectroscopy
- Photoemission Electron Microscopy(PEEM)
- Semiconductor Inspection
- Raman Spectroscopy
- Photoluminescence
- Disk Mastering
- Fiber Bragg Grating



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