

A photograph of the NWRfemto laser system, showing a black and white control unit with a red emergency stop button and a blue Ethernet port. The background is a blurred laboratory setting.

# NWRfemto

## FEMTOSECOND

### LASER ABLATION FOR

### THE ULTIMATE IN

### FRACTIONATION CONTROL

Reduce thermal effects to achieve stoichiometric analysis and the most precise analytical data

## Features

High performance fs laser

Rugged design

Infinitely Variable Aperture (IVA)

ActiveView2 Software

Light Conversion Pharos

Optimum stability and mobility

Greater flexibility – spot selection in 1 $\mu$ m increments

Intuitive, feature rich laser ablation control software – designed around your workflows with improved ICP-MS compatibility

Multi-layered viewing for greater sample control in less time

# NWRfemto

## Specifications summary



### Performance Specifications

Laser	Light Conversion - Pharos
Beam profile	Gaussian
Repetition Rate	1-1100Hz with 1Hz resolution
Laser Attenuation	High resolution diode control
Fluence	>3 J/cm <sup>2</sup> at the sample surface (257nm)
Spot Sizes	Aperture Imaged: 65 circular spots 1-65µm
Ablation chambers	High performance two volume ablation chamber – TwoVol2
XY Stage	100mm x 100mm, 1µm resolution
Mass flow controllers	Standard: 0 – 1 L/min He MFC
Triggering	Bi-directional hard triggering Software plug-ins with ICP-MS systems for greater control and automation
Primary viewing system	Full HD 1080p digital camera with 15x to 60x objective-to-camera magnification
Secondary viewing system	25mm field of view for macro navigation
Lighting	3 high-intensity, LED light sources (coaxial, ring and transmitted) Fully software controlled
Polarizer	Software-controlled rotating cross polarizer
Software	Class leading ActiveView2 software

### General Specifications

Safety Classification	Fully interlocked Class 1 system
Warranty	12 months
Dimensions	89cm x 79cm x 150cm (35" x 31" x 59") DxWxH
Weight	270kg (600lb)
Cooling	Closed loop water cooled
Platform	Ultra-stable bridge design on Ultra Compact cart



### Site Requirements

Temperature	22°C ±2°C (68°F ±3°F)
Relative Humidity	<60% non-condensing
Power Requirements	100-110V (AC), 6A, 50/60Hz 220-240V (AC), 3A, 50/60Hz

### Additional Options

Alternative wavelengths	208nm, 257nm or 1028nm
Dual wavelength	Software-controlled wavelength switching between 257nm and 1028nm
CryoCell	Liquid N <sub>2</sub> cryocell – operates down to -100°C
Mass flow controllers	Optional: 0 – 100 mL/min N <sub>2</sub> MFC Optional: 0 – 1 L/min Ar MFC
DCI	Dual concentric injector – ultra-fast washout for single-shot and imaging analysis
Warranty extension and service contract	Available on request

