

NWR Femto

Most Integrated Femto Laser Ablation

ESI's NWR-Femto combines New Wave Research's expertise in laser ablation with the latest leading edge technology. The system creates the ultimate LA-ICP-MS experience by providing un-matched level of integration; benchmark video imaging and navigation; superior sample handling and analytical results.

Ultimate Flexibility and Customization

- Configurable for 800nm, 266nm or <200nm
- Laser optimization through Ablation software for Ease of Use
- Compatible with NWR sample chambers
- Optically Attenuated for full energy control



Leading Femto Laser Ablation Integrated Platform

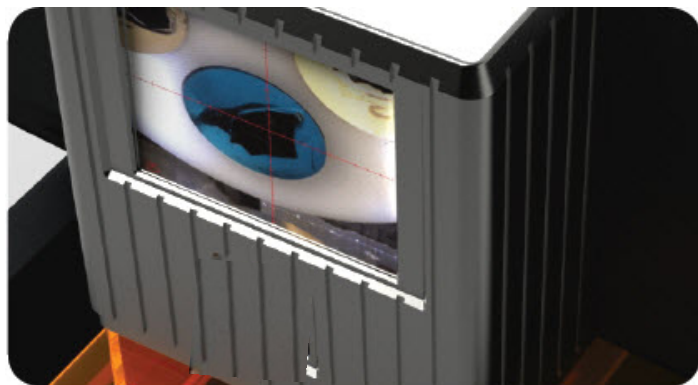
The NWR-Femto offers the highest level of system and software integration for this technology. The integration is designed for optimum user experience and ease of use, while the software enables easier tuning and optimization of the laser.

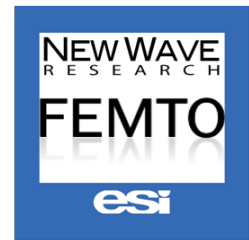
The NWR-Femto Advantages

- Customized for Higher Energy or Higher Repetition Rate
- Large Field of View touch screen for navigation with 25mm field of view
- Large standard sample chamber with 100mm x 100mm travel range
- Aperture imaged system with 13 pre-calibrated spot sizes
- Fully automated laser ablation software
- Three independent LED light sources

Additional Options:

- 150mm Large Format Cell with transmitted lighting
- Flexible service contract model
- Additional MFC
- Customized sample chamber insert





Site Requirements	
Temperature	70°F ± 4°F (23°C ± 2°C)
Relative Humidity	25% - 60% non condensing
Laser Classification	Class 4 (Class 1 system)
Power Requirements	220-240V (AC), single phase 50/60 Hz, 20 A dedicated circuit
Foot Print	
Height	47" (120 cm)
Width	35" (89 cm)
Length	72" (182.9 cm)
Weight (Laser System)	1090 lb (495 kg)

Performance Specification	
Laser Pulse Width	<130 fs
Pulse Stability	≤ 5% RMS
Wavelength	Configurable for 800, 266 or <200nm
266nm Fluence @ Sample	>2.2 J/cm ²
200nm Fluence @ Sample	>1 J/cm ²
Spot Sizes	13 Pre-calibrated spots sizes from 1 µm to 65 µm
XY Stage	100 mm x 100 mm Travel
Stage Step Resolution	1 µm
General Specification	
Safety Classification	Fully Interlocked, Class-1 system
Warranty	12 month
Triggering	Bi-Directional control between Mass Spectrometer and Laser Ablation system
Viewing Optics	Large Field of View navigational optics with touch screen @ High-Resolution
Mass Flow Controller	Fully Integrated MFC
Confocal Color Video Microscope	2 µm camera resolution, with color CCD camera
Optical Magnification	5.6X to 60X (objective to camera mag.) <u>Primary Viewing System:</u> Low Magnification: 0.70 mm x 0.56 mm High Magnification: 0.15 mm x 0.12 mm <u>Secondary Viewing System:</u> 25 mm x 19 mm Sample Mosaic: 100 mm x 100 mm
Polarizer	Rotating cross-polarizer, fully controlled from GUI
Gas Handling	Software controlled solenoid valves: online, purge, bypass

No known hazards during to eye or skin during normal operation
 Note: Service Operation may require access to hazardous embedded lasers

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