

# LSX-500

## Laser Ablation System

The LSX-500 features a compact Nd: YAG laser that delivers unmatched energy output at 266 nm. Based on the same rugged form factor as the LSX-213, the LSX-500 will ablate most materials with superior analytical performance. It is an economical alternative that enables both opaque and transparent samples to be analyzed with ease.



### POWERFUL

The custom designed laser used in the LSX-500 ablates even quartz and calcite, samples difficult to ablate with previous laser ablation systems.

Application areas include ceramics, semi-conductors, metals, biological and environmental samples, pharmaceuticals, forensics, and geological research.

The LSX-500 delivers a uniform particle aerosol that results in long, flat, stable signals.

### VERSATILE

The LSX-500 incorporates integrated software control for any ICP or ICP-MS through the host computer. DigiLaz™ II software features 14 flexible ablation methods, including depth profiling, rastering and single shot analysis; sample mapping of the entire stage area for wide field imaging; method file management; automated video zoom and sample motion control; built-in graphics utility for sample image capture and annotation, and helium carrier gas flow control. Large sample cells and customized chambers are also available.

### RELIABLE

Superior optics and imaging stability: Internally homogenized laser beam yields uniform, flat-bottom craters while minimizing elemental fractionation. Energy density remains constant regardless of spot size.

Improved high resolution optical system: The optical path and imaging platform are internally mounted for protection and stability. The isolated laser and viewing path eliminates alignment problems.

Unrivaled hardware, quality construction: Simplified layout leads to improved stability and ease of maintenance. High resolution motorized stage control to <1  $\mu\text{m}$ . Entire electronics and service module is easily removable.

### Technical Specifications

**Spot size:** Variable from 10  $\mu\text{m}$

**Enclosure:** Class 1 with safety interlocks

**Laser head:** Nd: YAG 266nm Q-switched

**Energy per pulse:** > 9.0 mJ laser energy

Flat-top laser beam energy profile

**Repetition rate:** 1-20 Hz

**Pulse width:** < 6 nsec

**Cooling:** Closed loop distilled water system

**Power requirement:** 100-240 VAC

**Dimensions (H x W x D):** 69 cm x 46 cm x 51 cm  
(27¼" x 18" x 20")

**Weight:** approximately 75 kg (165 lbs)

**Warranty:** 12 month limited