

UP266 Universal Platform Laser Ablation System



The Laser Ablation System

UP-266 is a general purpose, expandable, laser ablation system incorporating a flat-beam product innovation, available only from New Wave Research, for depth profiling and a more controlled ablation process. The standard UP-266 delivers high energy to the sample. The energy density is sufficient to ablate the most challenging materials. Its wide range of spot sizes allows it to be used for both micro-feature and bulk analysis of semiconductor, geological, biological, and environmental specimens.

UP-266 is a robust, user-friendly instrument that can be operated by inexperienced technicians. The laser ablation software controls all laser parameters, sample viewing, stage positioning and gas routing functions, including triggering of the mass spectrometer, for a fully automated ablation process.

The Universal Platform Series is the latest innovation in laser ablation systems. It incorporates the most recent advances in laser ablation technology. It offers a totally flexible design that can be upgraded with

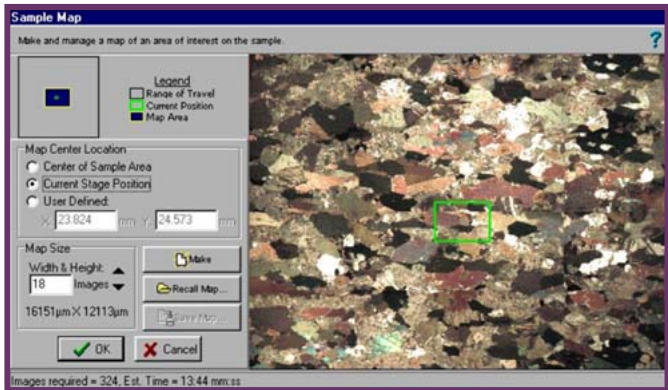
The UP266 Advantages

- High-energy densities ablate difficult materials, including calcite and quartz.
- “Resonator-flat” beam and specialized beam delivery system yield uniform craters with energy densities that remain constant when changing spot size.
- Accepts large format and specialized sample chambers, including liquid-nitrogen cooled chambers.
- Precision depth profiling and spot sizes from <math><10\mu\text{m}</math>.
- Finer particles improves transport efficiency and minimizes deposits.
- Automated laser ablation process using the acclaimed New Wave Research laser ablation software, including sample mosaic navigation function. Operates from Windows 95, 98, NT, 2000.
- 213nm upgrade available.

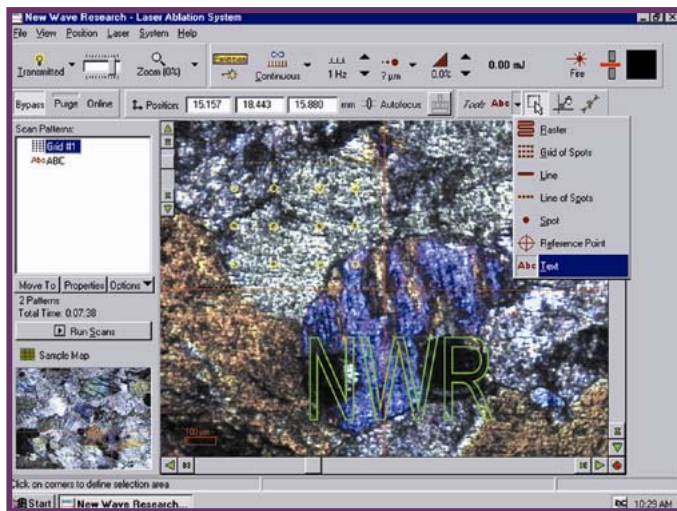
Applications

For ICP, ICP-MS noble gas or stable isotope mass spectrometry. The UP-266 excels in:

- Analysis of geological materials, including volcanic glasses, silicate and calcite;
- Direct analysis of pressed powders;
- Bulk analysis on metals, alloys, polymers and ceramics;
- Direct micro-analysis on mineral grains and inclusions.



Sample mosaic navigation function.



Laser ablation software main screen: Sample navigation window shown in lower left corner increases the field-of-view up to 52mm wide. Now with alphanumeric marking and 3D contour following functions.



System Configuration

- 4th harmonic, Nd:YAG laser with sufficient energy density to ablate both opaque and transparent materials
- A high-magnification video system with computer-controlled zoom and optional microscope head
- Precision stages with sub-micron resolution configured to accept large format and specialty sample chambers
- Quick change sample cell holder (52mm ID X 52mm deep), designed to accept standard 1" diameter slugs, thin sections, and large irregular specimens
- Gas control valves automatically control the carrier gas through the sample cell to the mass spectrometer
- An integrated Class 1 system with total computer control of all functions. Interfaces with all major brands of ICP-MS and ICP instruments

Options

- Autofocus
- Microscope head
- Glitter Time Resolved Analysis Software
- Specialized sample chambers
- Cross polarizers
- Large stages
- Different wavelengths

Limited Warranty

Warranted for 30,000,000 shots or one year
(Call for limited warranty statement)

Site Requirements

Laser Ablation Module

Length	25" / 635 mm
Width	18" / 457 mm
Height	22" / 559 mm (to eyepiece)
Weight	130 lb. / 59 kg
Voltage	100 - 240 VAC, 1Ø, 3A, 50/60 Hz

Laser Power Supply

Length	14.5" / 368 mm
Width	7.65" / 194 mm
Height	10.9" / 277 mm
Weight	30 lb. / 13.6 kg
Voltage	100 - 240 VAC, 1Ø, 3A, 50/60 Hz



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