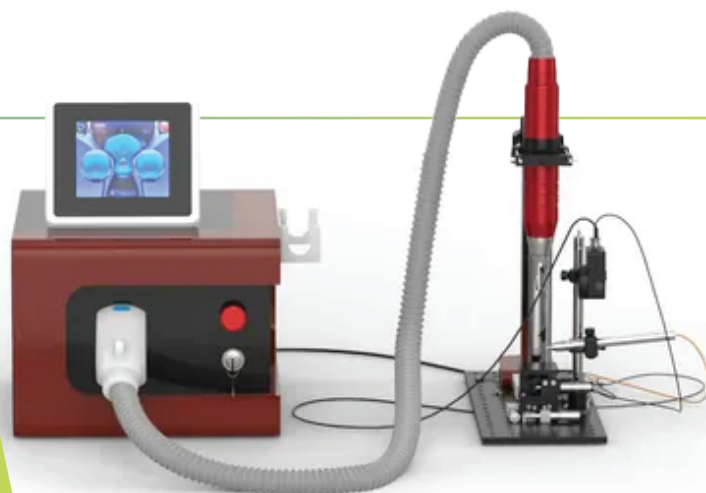


DESKTOP LIBS

Portable Elemental Analysis by Onteko

Desktop LIBS is a portable device capable to perform the elemental analysis of any material. As an excitation source, uses a compact monolithic laser which can work forever without any optical alignment maintenance.

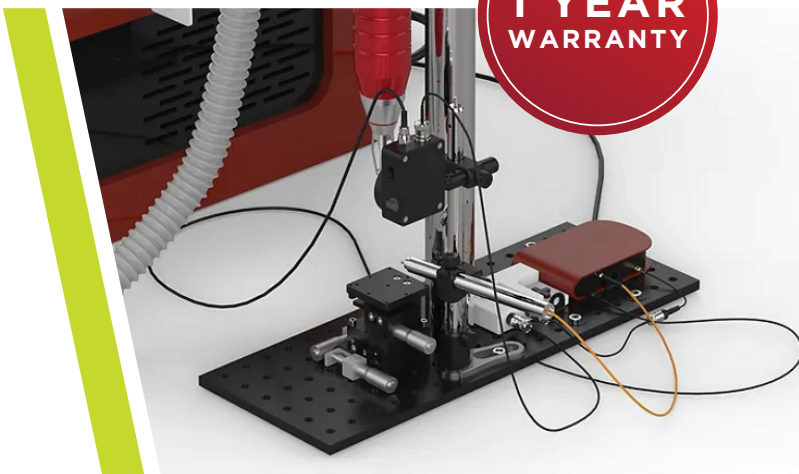


LASER

- ✓ Solid-state
- ✓ Laser Nd:YAG
- ✓ Pulse energy 300 - 980 mJ
- ✓ Burst mode pulse 5 ns FWHM
- ✓ Wavelength 1064/532 nm
- ✓ Repetition rate 10 Hz
- ✓ ProLIBSpector software included
- ✓ Spectrometer included

OPTICAL SPECTROMETER

- ✓ External Trigger
- ✓ Spectral Resolution 0.5 nm, 0.6 nm or 2 nm, depending on the chosen spectral range, VIS, IR or extended, respectively
- ✓ Spectral range is chosen by user: VIS, IR or extended
- ✓ Light delivery by optical fiber



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MICRO LIBS

Advanced Elemental Micro-Analysis by Onteko

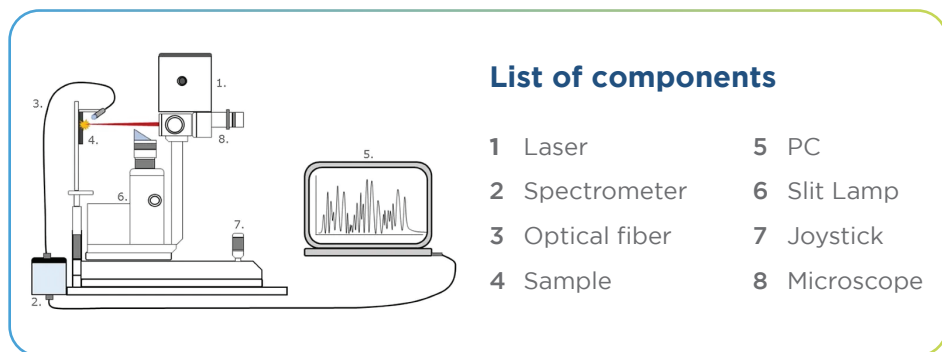
This laser device, equipped with a slit microscope, is designed to analyze the composition of materials in any state—solid, liquid, or gas. It captures signals from the plasma generated by atomic emissions when the material is struck by laser pulses. The device operates using the LIBS technique.

APPLICATIONS

- ✓ Chemical micro-analysis
- ✓ Conservation
- ✓ Electronics
- ✓ Environment
- ✓ Food Safety & Quality
- ✓ Geology
- ✓ Glass and ceramics
- ✓ Medical Diagnostics
- ✓ Petroleum & Lubricants
- ✓ Polymer Analysis
- ✓ Bioanalysis
- ✓ Thin films

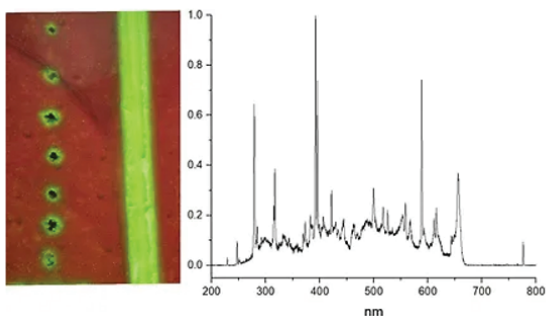
ADVANTAGES

- ▶ Does not require sample processing
- ▶ Minimal sample damage
- ▶ High resolution
- ▶ Immediate results
- ▶ High Productivity (1+ spectrum per second)



List of components

- | | |
|-----------------|--------------|
| 1 Laser | 5 PC |
| 2 Spectrometer | 6 Slit Lamp |
| 3 Optical fiber | 7 Joystick |
| 4 Sample | 8 Microscope |



Example of LIBS analysis on citrus leaf

TECHNICAL SPECIFICATIONS

- ▶ Pulse energy up to 40 mJ
- ▶ Total pulse duration 4 ns
- ▶ Wavelength 1064 nm
- ▶ Repetition rate 1 Hz
- ▶ Spectrometer: Spectral range is chosen by user: VIS, IR or extended
- ▶ External synchronization

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