

## Mobile Laser Induced Breakdown Spectroscopy (LIBS) Solution



At the present time, this product is available only to certain selective or OEM customers for developing custom analyzers for mobile applications. As a total solution provider, B&W Tek is actively seeking strategic, channel and OEM partners to enable them to address their custom applications and vertical markets.

# NanoLIBS

## Handheld LIBS Analyzer

# i-LIBS

## Portable LIBS Analyzer

### Features

- Lightweight, Handheld & Portable
- Light Element Detection
- Safe (No X-Ray Exposure)
- Rastering Beam or Mapping
- Point and Shoot

- Battery Operation
- High Accuracy and Precision
- Quick Results (1-2 Seconds)
- Touch Screen with Glove Operation
- Detects All Elements

# Mobile LIBS Applications

## Industrial

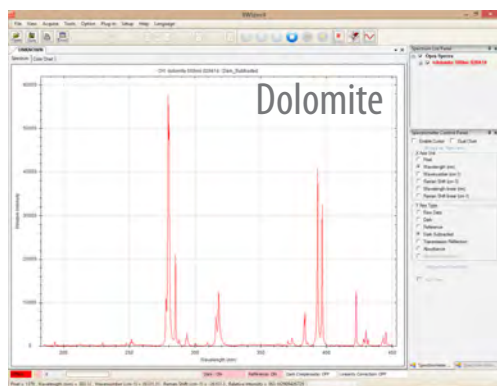
- Chemistry- Catalyst & Impurity Control
- Conservation- Pigment Analysis
- Electronics-Particulate Analysis
- Environment - Particulate Analysis
- Food Safety & Quality
- Geology - Impurity Distribution
- Glass - Impurity Control
- Medical Diagnostics

## Laboratory

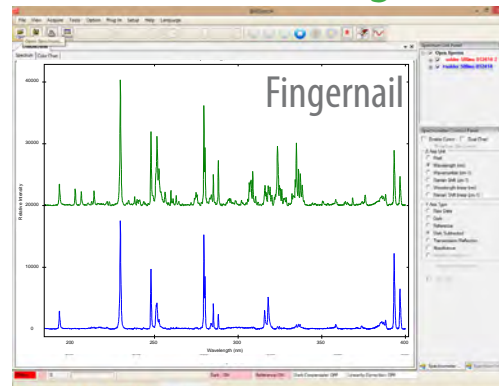
- Mineral Analysis & Identification
- Nuclear - Radioactive Element Analysis
- Petroleum & Lubricants
- Pharmaceutical - API ID & Tablet Analysis
- Polymer Analysis - Plastic Recycling, Flame Retardant ID
- RoHS Compliance
- Safety & Security - Hazardous Materials ID

## Sample LIBS Spectra

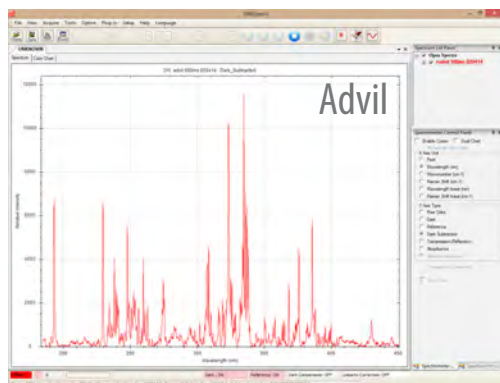
### Minerals



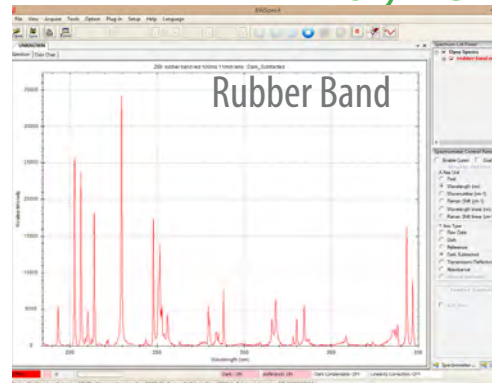
### Diagnosis



### Pharmaceutical



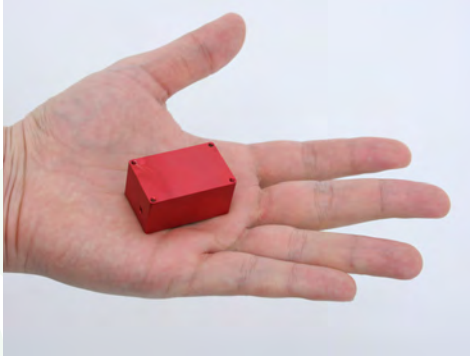
### Polymer



## Advanced MicroLIBS Laser

### Superior Performance

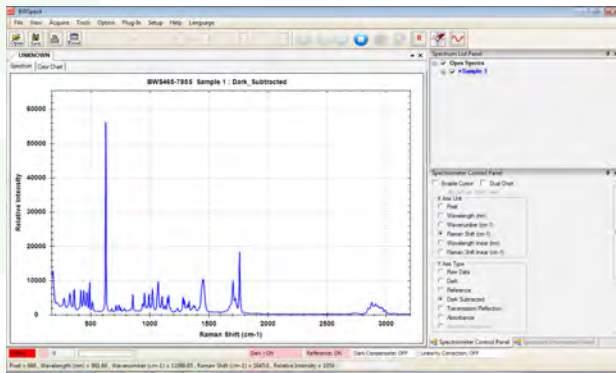
Match box size with powerful and fast multi-GW/cm<sup>2</sup> plasma generation at an extremely high repetition rate



## Chemometrics

### World Class Software

In-house Material Identification Software-BWID  
In-house Quantitative Analysis Software-BWIQ



## Compact Spectrometer

### For "Real Time" Spectroscopy

Capable of multiplexing and real time spectroscopy with <20ns trigger/jitter and <100 picometer resolution; multiplexing capability for integrating up to 16 spectrometers

## Handheld and Portable Integration

### System Integration with In-house Capabilities

Integrate into a portable or handheld system with battery operation under Linux, Android or Window OS



## Chemometrics/Methods/Calibration/Applications

### In-house Applications Team

Custom-built solutions for identification or quantitative analysis of pure materials & mixtures with our patent-pending chemometric/calibration engine

## Quality & Compliance

Medical Device Engineering and Manufacturing

ISO 9001/13485 Certified Systems

FDA & CDRH Registration and Compliance

CE Compliant

Application of Six Sigma Methodologies

Mock FDA Quality Systems Inspections Technique (QSIT)

Extensive Quality Control Check Points Including Installation Qualification (IQ), Operational Qualification (OQ),

Performance Qualification (PQ) and Software Verification and Validation

# An Open Mobile LIBS Platform to Enable Real World Applications in Collaboration with Our Customers

Specifications	<i>NanoLIBS</i>	<i>i-LIBS</i>
LOD (Element Dependent)	10ppm - 10,000ppm	1ppm - 10,000ppm
Accuracy	5 - 15%	
Display	LED Color, Touchscreen, Glove Operable	Embedded Touch Pad or External PC
GUI	Intuitive	Customize on Screen
Operation	Point & Shoot	Point & Shoot or Mapping
Time to Result	1-2 Seconds (Typical)	
PC Connection	Wi-Fi/USB	
Battery Life	4 - 8 Hours	
Operating Temperature	0 - 40°C	
Weight	3.5 - 5.5lbs	7 - 12lbs
Dimensions (Approx)	11 x 3.5 x 11 inches	8 x 11 x 12 inches

\*Subject to Change

## Custom Application Process

