



- 1 The FiberLIBS Lab system for multi-element analysis.
- 2 Zinc sample after measurement (grid of laser craters).
- 3 Functional principle of the LIBS procedure.

ELEMENT ANALYSIS FOR PROCESS CONTROL

Laser Induced Breakdown Spectroscopy (LIBS) enables in-line analysis of element contents, whether for controlling coating processes, optimizing recycling or for real-time material control on the conveyor belt.

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LIBS Method

Laser-Induced Breakdown Spectroscopy is an innovative and universal measuring technique for the composition analysis of a wide variety of materials.

A laser generates a plasma from the point of interest with only very small material ablation. The spectrum of the plasma contains information about the presence and concentrations of all elements in the respective measuring point.

In combination with powerful evaluation algorithms, the LIBS technology enables very fast and precise multi-element analyses.

Benefits

- Measurement of the element distribution in the volume and on the surface within seconds
- Determination of all (also light) elements possible
- No sample preparation necessary
- Even hot samples can be measured
- Very good spatial resolution due to small measuring spot
- High measuring frequency for fast measurements despite high measuring point density
- 3D surface measurement allows measurement of irregularly shaped samples
- Quantitative determinations can be done with suitable reference materials
- Sample size up to 600 x 400 x 140 mm

We develop specific LIBS methods for your process application.