INGEN

INNOVATIONS FOR GEOSCIENCES

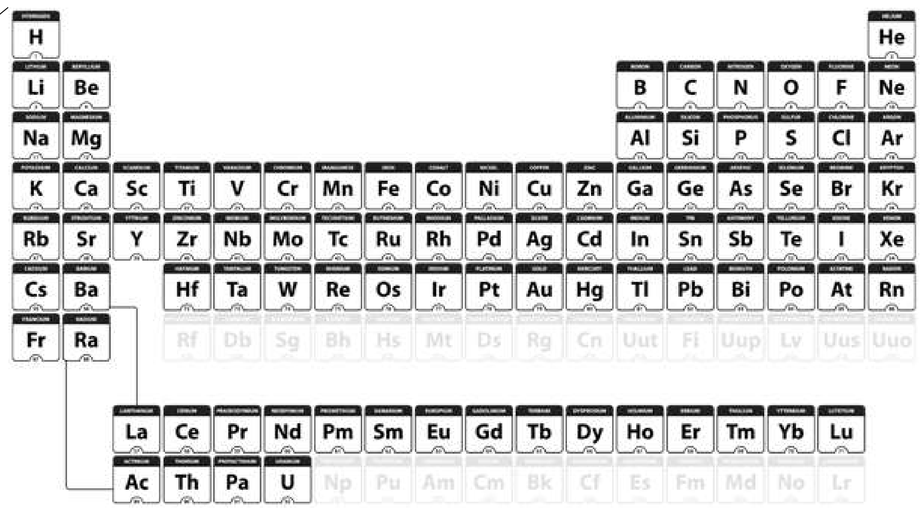
LIBS

LASER INDUCED BREAKDOWN SPECTROSCOPY

ENJOYING THE SPOLIGHT

The most advanced, most precise laser-based analyzer available, LIBS is a hot new technology hitting the mining and exploration sectors.

LIBS offers two distinct features not available with the established handheld X-ray analyzers. First, it analyzes elements that X-ray cannot, including lithium (Li), beryllium (Be), boron (B), carbon (C), fluorine (F) and sodium (Na). It also performs micro-analysis in the field (elemental mapping), something not available with any other analyzer.



TO MEASURE ELEMENTAL CONCENTRATIONS

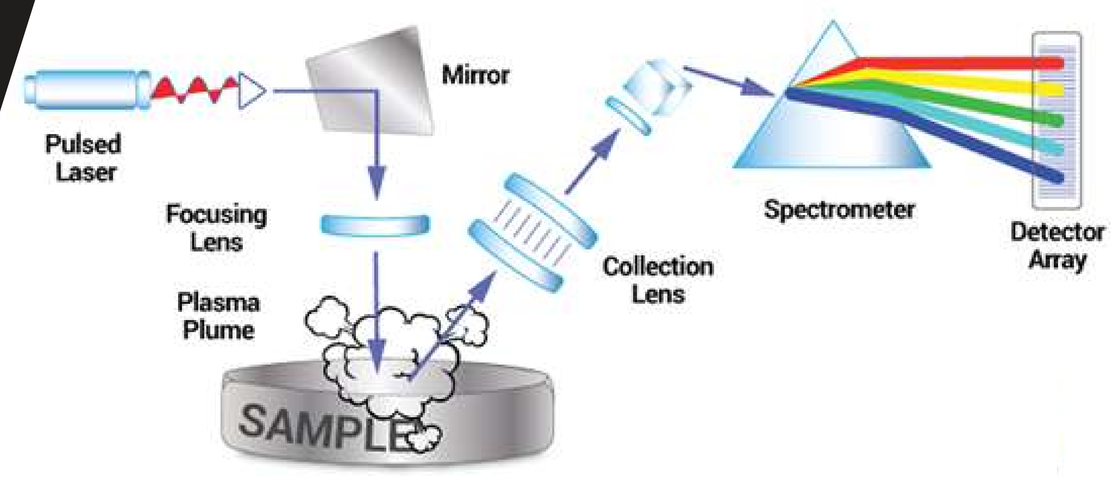
Measures every elements in the periodic table of the elements – from H to U

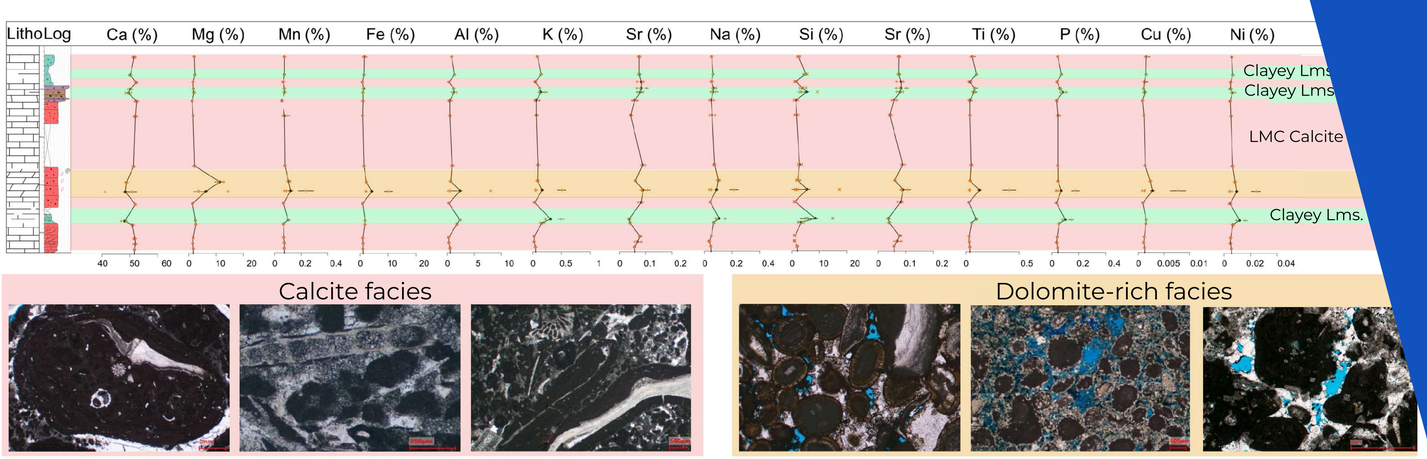
Detection in the 2-5 ppm range
The extended range allows emission lines from elements : H, F, N, O, Br, Cl, Rb, Cs and S to be detected.
Specific application for Mg and Li detection

LASER SPECTROSCOPY

Delivers very accurate chemistry provided it's operated in an argon purge environment

LIBS operates by using a pulsed, focused laser that is fired at a sample with sufficient pulse energy as to create a plasma around the area struck. Bound atomic electrons are striped from the atoms comprising the material. As the plasma cools, atoms recombine with electrons and in the process emit light in the UV, optical and IR regimes.





INGEN'S ENHANCED FEATURES

Through our R&D programs, we improved LIBS capacities

In-house calibration for **semi-quantitive** data of carbonates (analytic error from ppm (trace) to 1% (major elements))
Chemostratigraphy & Geosteering specific applications
Reservoir studies with dolomite analysis
Field mapping with **GNSS coupling**

ADAPTED TO YOUR NEEDS

Portable,
Instant results,
No sample preparation

190 nm – 950 nm spectrometer
5-6 mJ/pulse, 50 Hz repetition rate,
1064 nm laser source
4lbs with battery

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