



INNOVATIVE PHOTONIC TECHNOLOGY

The smart clean sensors developed by IUMTEK are based on Laser Induced Breakdown Spectroscopy (LIBS) technology.

The LIBS technology is a real-time method for elementary analysis of all types of materials, without prior preparation, regardless of its state (liquid, solid or gas), and optical lenses which is focused on the analyzed material and creates a plasma and photon emissions. This light-matter interaction results in data that can be qualitative and / or quantitative. The ergonomic and intuitive HIM software interface, as well as the automation of the data acquisition system proposed by IUMTEK ensure safe use. For further information: <https://iumtek.com/en/lib-s-technology/>.

IUMTEK has a team of experts in:

- Mechatronics-photonics
- Embedded software
- Data processing
- Analysis Protocols



COMPLEMENTARY TECHNIQUES: XRF, ICP-AES, Raman

OUR PARTNERS:



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A Cleantech enterprise for real-time analysis of elementary chemical elements



TX1000 ANALYZER



A cleantech enterprise for real-time analysis of elementary chemical elements

The TX1000 analyzer designed and manufactured by IUMTEK is a versatile instrument for the detection of elementary chemical elements which allows fast and reliable identification in solids, liquids and gaseous media. This solution enables real-time diagnosis at the heart of the industrial processes.

DETECT - ANALYZE - CONTROL - QUANTIFY

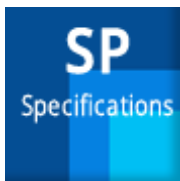
ADVANTAGES:

- Fast results with little or no preparation
- No waste
- Robust & versatile instrument
- On-site analysis
- Plug & Play
- Decision aid Tool
- Ease of use

MARKETS:

- Nuclear dismantling
- Materials expertise laboratories
- R&D laboratories
- Petrochemical industry
- Renewable energies
- Quality control
- Analysis of emissions smoke emissions

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TX1000 VERSATILE ANALYZER



SPECIFICATIONS

- Any type of sample analysis
- Multi-elemental analysis
- Allow the detection of all the periodic table elements
- No sample prior preparation* of samples
- Analytical precision (from ppm to %)
- Fast analysis (in a few seconds)
- Layer to layer analysis
- Sample cleaning ability before analysis
- Nearly non-destructive analysis (crater diameter of $\approx 150 \mu\text{m}$)
- Analysis chamber for solid samples
- Analysis kits for liquids and gases (optional)

* Except for powders

PRISMA SOFTWARE

- Instrument control
- Assistance Tools for interpretation
- Quantification tools
- Chemo metric tools to create models
- HIM - Interface man to machine - Office 2016

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TX1000 ADVANTAGES:

- Control card
- Mastery of You determine the analysis parameters
- Automated instrument
- Ease of use / Expert mode
- Self-test



A team at your service:

iUMTEK's mission is to design real-time industrial in-situ chemical analyzers. We also offer photonics and software module developments dedicated to specific business applications.

Our services:

- On-site intervention
- Rental material for analysis campaigns

Entrust your samples to us
When you need characterization tests (on demand)

