



BTX™ III Benchtop XRD Analyzer for Fast Mineral Identification



The BTX III X-ray diffraction (XRD) analyzer from Olympus Scientific Solutions offers fast, dependable quantitative mineralogy of both major and minor components in a small, benchtop design.

The BTX III analyzer features an exclusive small sample holder to offer a lightweight and almost maintenance-free substitute to traditional XRD. This standalone instrument operates without the need for water cooling, compressed gas, a secondary chiller, or external transformer, thereby minimizing the cost of ownership. Operators can directly link the XRD instrument to any device using Ethernet or wireless capability.

The XRD tools of Olympus Scientific Solutions are driven by intuitive SwiftMin® software to streamline the workflow with a single dashboard, easy data export, preset calibrations, and automatic data transfer.

Better Speed and Sensitivity Power Swift Decisions

Intuitive and robust software is coupled with better quality X-ray detectors for faster analysis times, improved sensitivity, and more consistent results.

- Updated X-ray detector hardware works faster and provides more intensity, resulting in lower LODs.
- SwiftMin® automated phase ID and quantitative software offers real-time data directly on the XRD analyzer, so users can make quick decisions with confidence.



Image Credit: Olympus Scientific Solutions Americas (XRF / XRD)

Applications

The BTX III instrument offers quick mineral identification for a wide variety of applications, such as those discussed below.

Mining and Ores

Iron-rich ores: Iron-rich ore can be analyzed even when specific phases are entirely absent.

- Hematite
- Goethite
- Quartz
- Magnetite

Potash: Potash can be analyzed for phase identification and semi-quantitative analysis of identified minerals, including:

- Leonite
- Sylvite
- Langbenite
- Halite

Limestone and cement: Users can easily conduct quantitative XRD analysis of basic minerals related to limestone. When the quarry has different levels of dolomite, the analyzer rapidly identifies this mineral in the range of 0.5% to 9%, with an error of just 0.02%.

- Calcite
- Alpha-quartz
- Dolomite
- Asbestos minerals

Calcite in coal: Users can quantify calcite (CaCO_3), a mineral known to reduce the efficiency of the raw material fuel in a coal-fired plant, to enhance efficiency and minimize carbon emissions.



Image Credit: Olympus Scientific Solutions Americas (XRF / XRD)

Oil and Gas

Well logging/mud logging: Users can carry out mineral identification and quantification on shale cuttings in the field for quick feedback at geosteering and horizontal drilling areas. They can streamline “chasing the vein” of specified mineral strata.

- Clays
- Pyrites

- Carbonates
- Silicates

Pipelines: The energy-sensitive detector facilitates ideal peak-to-background performance to detect and measure corrosion materials on pipelines. Concurrent XRF measurements allow elemental constituents to be rapidly identified.

- Wustite (FeO), goethite ($\text{FeO}(\text{OH})$), hematite (Fe_2O_3), and pyrite (FeS_2)
- Aragonite (CaCO_3) and calcite (CaCO_3)

Mine tailings: Users can easily re-examine mine tailings to identify mill performance or assess historical projects.



Image Credit: Olympus Scientific Solutions Americas (XRF / XRD)

Pharmaceutical

- Quick identification of fake pharmaceuticals
- Rapid, nondestructive fingerprinting of drug formulations and precursors
- The presence and quantity of inactive and active substitute or foreign ingredients can be tested
- Rapid XRD analysis helps guarantee patient safety and protects genuine pharmaceutical manufacturers' branding



Image Credit: Olympus Scientific Solutions Americas (XRF / XRD)

Olympus Scientific Solutions Americas (XRF / XRD)



Address

48 Woerd Avenue Waltham
MA, 02453
United States

Phone: +1 (800) 225 8330

Fax: +1 (781) 419 3980



Visit Website



Recent Tweets

#Blog: Check out this customer review of the the AxSEAM™ scanner and OmniScan™ X3 flaw detector -... <https://t.co/NdKsy0iS1E>



Mar 29 2021 4:00pm

How does stereo measurement work using a videoscope? For a complete introduction to visual inspection measurement s... <https://t.co/VWe4gmmXnh>



Mar 29 2021 12:01pm

#SneakPeak: Check out this video for a look at the #corrosion monitoring features of WeldSight™ software -... <https://t.co/Wdbllc2gSC>



Mar 29 2021 9:01am

[View all tweets](#)

Olympus NDT XRF and XRD Analyzers provide fast, non-destructive (NDT) and accurate compositional analysis of materials. These qualitative and quantitative x-ray analysis techniques are used for detection, identification, screening, quality control, process control, regulatory compliance, and research and education. Applications for their products include energy resources, metals and alloys, mining and geology, scrap and recycling, environmental and consumer safety, forensics and pharmaceuticals, archaeology and academia, and general manufacturing. Olympus NDT's products are grouped into the following categories:

XRF Analyzers for Elemental ID & Compositional Analysis

- Handheld XRF
- Portable XRF
- Process XRF
- Specialized XRF

XRD Analyzers for Compound & Phase ID/Quantitative Analysis

- Benchtop XRD
- Portable XRD

Olympus NDT recently acquired and integrated Innov-X Systems and InXitu, Inc., both leaders in portable x-ray technology. Olympus NDT will continue developing and advancing portable and specialized XRF and XRD analyzers for improvements in speed, detection limits, range of analytes, ease of use, versatility, and overall quality for point of use.

Primary Activity

Material Manufacturer

Services

Suppliers of innovative test, measurement, and imaging instruments.