

The Positives of Using Portable XRF for Electronics and Battery Recycling

Portable X-ray fluorescence (XRF) is a powerful technique to get on-site, fast, and easy chemical composition of a wide range of materials in waste electrical and electronic equipment (WEEE) and battery recycling. pXRF analyzers such as the Vanta™ series provide rapid, accurate results for battery metals identification and quantification, RoHS compliance testing, and precious metals testing in electronics.

Identifying and Quantifying Battery Metals

pXRF analyzers provide key battery commodity concentrations for these elements:

- › Cobalt (Co)
- › Nickel (Ni)
- › Manganese (Mn)
- › Copper (Cu)
- › Aluminum (Al)
- › Rare-earth elements (REEs)

Vanta analyzers can help optimize the extraction, smelting, and refining processes, as well as reduce the number of lab tests.

RoHS Testing: Screening for Toxic Metals

pXRF analyzers can screen for toxic metals in many consumer products, including electronics, enabling RoHS compliance.

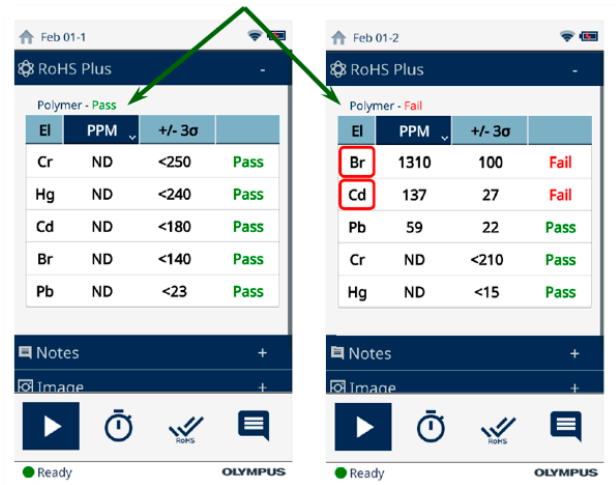
The Vanta analyzer can screen for:

- › Lead (Pb)
- › Cadmium (Cd)
- › Arsenic (As)
- › Mercury (Hg)
- › Chromium (Cr)
- › Other toxic metals



pXRF analyzers are ideal tools for conducting a reasonable testing program (RTP)—a formal testing plan that you develop and follow to comply with regulations that apply to your product. An RTP can help you fulfill requirements for:

- › Lead-free compliance in boards, cables, connectors, PCBs, metal components, and solders
- › RoHS compliance



Vanta analyzers can be configured to provide RoHS pass/fail results

Precious Metals Testing in Electronics

pXRF analyzers can quantify precious and valuable metals from materials in circuit boards, connectors, and cables.

These metals include:

- › Gold (Au)
- › Silver (Ag)
- › Platinum (Pt)
- › Copper (Cu)
- › Palladium (Pd)

Vanta analyzers give you fast results to help you optimize your precious metals refining process and reduce the number of lab tests. You can quickly get gold analysis results directly on the analyzer.



Vanta analyzers alert you if gold plating is possible.



The Vanta analyzer identifies 14 karat gold.

Boost Productivity in Battery Metals Recycling

Along with its rapid results, the Vanta analyzer's design makes it an ideal tool for battery metals recycling:

- › **Low cost of ownership:** The Vanta analyzer is built rugged for testing in challenging environments. It also needs minimum maintenance, enabling maximum uptime.
- › **Designed for user productivity:** Modern connectivity and data transfer make the results reporting process easy.
- › **Accurate chemical composition analysis:** Proprietary Axon Technology™ processing provides low element limits of detection (LODs) and repeatable tests for reliable results.

To learn more about Vanta analyzers, visit

[EvidentScientific.com](https://www.evidentscientific.com)

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