

CTX Quick Check App



Fe & Zn in Seeds

Biofortified seeds can help combat malnutrition. Iron (Fe) and zinc (Zn) levels are monitored to ensure products sold as “biofortified seed” actually contain elevated levels of Fe and/or Zn. Expected concentrations range from 5 to 150 ppm. Crops such as wheat, rice, beans, or maize can benefit from these micronutrient fortified seeds.

X-ray Fluorescence (XRF) analysis is a simple, quick, and non-destructive method to measure the elemental content of food products. Portable XRFs enable analysis where materials are received, at the production line, in the field, or in the lab.

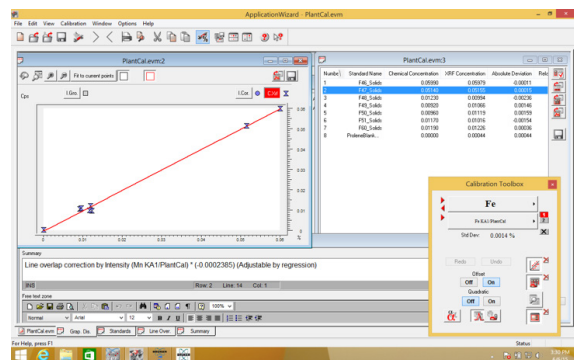
Bruker's Portable CTX™



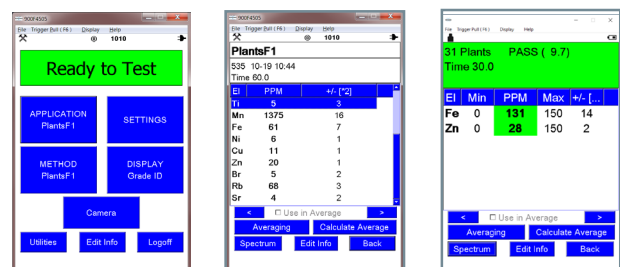
- Small, lightweight battery operated portable XRF analyzer
- 7.1 kg (15.6 lbs) with battery
- 13.5 cm x 25 cm x 35 cm WxDxH (5.3 in x 9.8 in x 13.8 in)
- Operating temperature: -10° C to +40° C (+14° F to 104° F)
- Splash / dust proof (IP-54) stainless steel housing for use in rugged conditions
- Sample chamber: 12 cm x 13.5 cm x 8.5 cm WxDxH (4.7 in x 5.3 in x 3.3 in)

Portable XRF for Fast QA/QC of Fe & Zn in Seeds

Fe and Zn levels in seeds are determined with a calibration built using similar reference materials and correlating their Fe and Zn peak signals with their known concentrations. The calibration is then installed on Bruker's portable XRF analyzer. The Fe and Zn peak signals from unknown samples are then used to determine their Fe and Zn concentrations.



The high performance and contrast daylight visible LCD 3.7 inch touchscreen display is for system control and view of easy-to-read, and understandable results. These can be viewed as spectra, concentration or as pass/fail with preset thresholds.



Bruker's Portable CTX Quick Check PLUS

Do you need to do a Quick Check of more micronutrients than Fe and Zn, such as Cl, Ca, Cu, Mn, Mo, Ni and Se? The CTX can be customized to meet your specific needs.

- Ready-to-go factory standard or custom calibrations
- Optional EasyCal Software to create your own calibrations
- Measure powders, liquids, solids or pastes
- Capable of measuring elements from Mg to U in ambient air
- Print results with optional Bluetooth™ portable printer

Bruker Portable XRF Elemental Analyzers: Simultaneously measure elements from sodium (Na) to uranium (U) at concentrations as low as parts-per-million to high percentage levels (depending on the element). Objects of any form – liquids, solids, cores, powders, shavings, chips – can be analyzed wherever they are located.

Bruker's portable Counter Top XRF, the CTX™, is for qualitative and semi-quantitative elemental analysis. It also performs quantitative analysis when utilizing calibrations with like-sample standard reference materials. Results can be given as spectra, composition, or Pass/Fail/Inconclusive for single or multi-elemental analysis of elements from Mg to U. The convenient form factor of the CTX is ideal for samples presented in containers such as powders, soils and liquids; small samples; and those which require extended measurements of more than a few seconds.



CTX™ Portable XRF analyzer
Mg (12) to U (92)

Bruker's portable XRF features

- Rh X-ray tube with high performance SDD detector
- 5 filter wheel (plus manual slot for TRACER 5)
- SharpBeam geometry for high performance, speed and sensitivity
- Touchscreen operation
- Internal camera (optional for CTX and TITAN)
- Wireless communication
- Battery or AC operation
- Lightweight and supplied with water tight transport case

Bruker's two handheld XRF spectrometers, the TRACER 5™ and the S1 TITAN™, are for qualitative and semi-quantitative elemental analysis. They also perform quantitative analysis when utilizing calibrations with like-sample standard reference materials. Results can be given as spectra, composition, or Pass/Fail/Inconclusive for single or multi-elemental analysis of elements from Na to U. A desk or bench top stand with a PC can be used for samples presented in containers such as powders, soils and liquids; small samples; and those which require extended measurements of more than a few seconds.



S1 TITAN Handheld XRF analyzer
Mg (12) to U (92)



TRACER 5 Handheld XRF analyzer
Na (11) to U (92)

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