better analysis counts

Phoebe M-SERIES

15 30.97 Phosphorus Analyzer

Phosphorus Determination in Hydrocarbon and Aqueous Matrices

From crude oil to bio-fuels, in additives or water, the PHOEBE Bench-Top Analyzer delivers unprecedented precision and accuracy for quantification of phosphorus. Based on XOS's MWD XRF analytical platform, (as is found in SINDIE and CLORA Analyzers) PHOEBE offers a LOD of 0.4 ppm in hydrocarbon matrices in a ten minute measurement cycle. The analyzer's extreme easy of use with straightforward touch screen operation allows for use in a broad range of industrial environments. PHOEBE is a plug-it-in and measure analytical solution and does not require extensive sample preparation, consumable gasses or sample conversion.

Application Areas:

- Total phosphorus analysis in hydrocarbons (including crude-oil), bio-fuels and aqueous matrices.
- For use in refinery, additive plants, oil recycle facilities and test labs.

Features and Benefits:

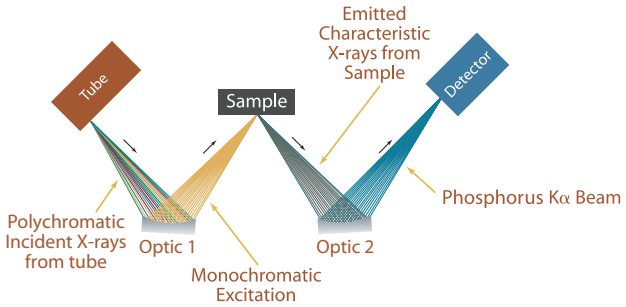
- LOD: 0.4 ppm in 600s.
- Dynamic Range: 0.4-3000 ppm wt.
- Fits on any bench and is compatible for use in mobile labs.
- Robust touch-screen user interface.
- User programmable measurement time: 30 -900 s.
- No conversion or combustible gasses required. No heating elements, quartz tubes or columns.
- Low power air-cooled excitation x-ray tube.

Options:

- LIMS compatible data communication capability.

MWD XRF

Monochromatic Wavelength Dispersive X-Ray Fluorescence (MWD XRF) utilizes state-of-the-art focusing and monochromating optics to increase excitation intensity and dramatically improve signal-to-background over high power traditional WD XRF instruments. This enables significantly improved detection limits and precision and a reduced sensitivity to matrix effects. A monochromatic and focused primary beam excites the sample and secondary characteristic fluorescence x-rays are emitted from the sample. A second monochromating optic selects the phosphorus characteristic x-rays and directs these x-rays to the detector. MWD XRF is a direct measurement technique and does not require consumable gasses or sample conversion.



Precision

Typical repeatability (r) and reproducibility (R) values, at 95% confidence. Measurement time: 600 s.

Phosphorus (ppm) in crude oil	r (ppm)	R (ppm)
2	0.8	1.2
5	1.0	1.6
10	1.4	2.0
15	1.7	2.5
20	1.9	2.8

Product Specifications

Dimensions	37 cm (w) x 50 cm (d) x 34 cm (h)
Power	100 - 120 VAC, 47 - 63 Hz at 6 Amp
Sample Cup Volume	10 ml
I/O Ports	Ethernet 10/100 baseT, RS 232
Ambient Temperature	5 - 40°C, (40 - 104°F)
Dynamic Range	0.4 ppm - 3000 ppm
Measurement Time	User selectable: 30s - 900s
Calibration	5 point calibration, capacity for 8 calibration curve

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Contact Lazar Scientific, your local XOS Supplier

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