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## Анализатор серы и свинца Sindie + PB Техническое описание

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## Sulfur and Lead Analysis of Petroleum Products

From ultra low sulfur diesel and gasoline to heavy fuel oil and crude, the Sindie 7039 Plus Pb Analyzer delivers unprecedented precision and accuracy for sulfur detection with the added option for measuring lead. As aviation industry requirements become more stringent, lead detection is critical in such products as aviation gasoline and jet fuel. XOS offers an ideal analytical solution for the energy industry where detection, performance, and reliability are essential. Simply plug it in and measure. Results with one touch. Unrivaled precision.

### Application Areas:

- Total sulfur and lead analysis from ultra low sulfur diesel to aviation gasoline and crudes.
- For use in refinery labs, pipeline terminals, additive plants, testing vans and inspection laboratories.
- Complies with ASTM D7039 and ISO 20884.

### Features and Benefits:

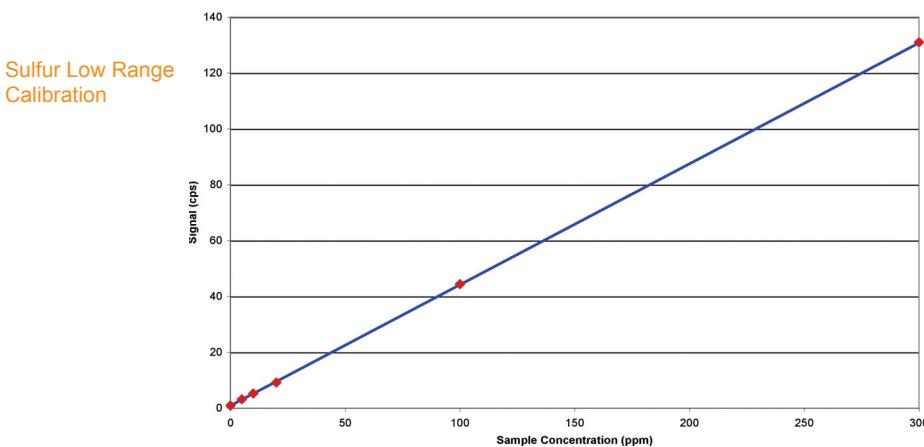
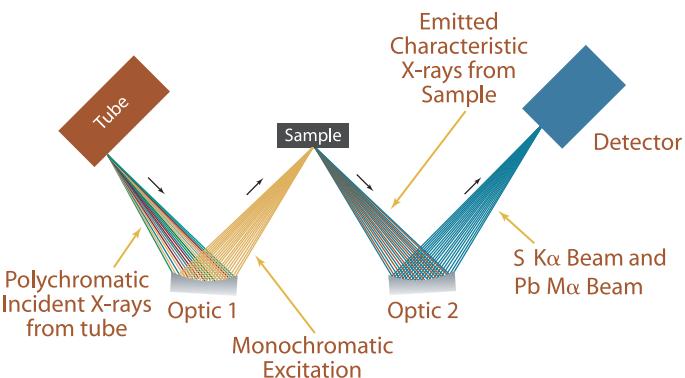
- LOD:
  - Sulfur: 0.7 ppm at 300 s
  - Lead: 0.002 g/L at 300 s
- Dynamic Range:
  - Sulfur: 1 ppm to 5000 ppm
  - Lead: 0.002 g/L to 10.000 g/L
- Fits on any bench and compatible for use in mobile labs and vans :
  - 37 cm (w) x 50 cm (d) x 34 cm (h)
- Plug-it-in and measure: no additional utilities required
- Touch Screen user interface
- User programmable measurement time: 30-900 s
- No conversion gasses, heating elements, quartz tubes or columns
- 75 W air-cooled excitation tube
- Robust polyamide window for easy cleaning

### Options:

- LIMS data output software capability.

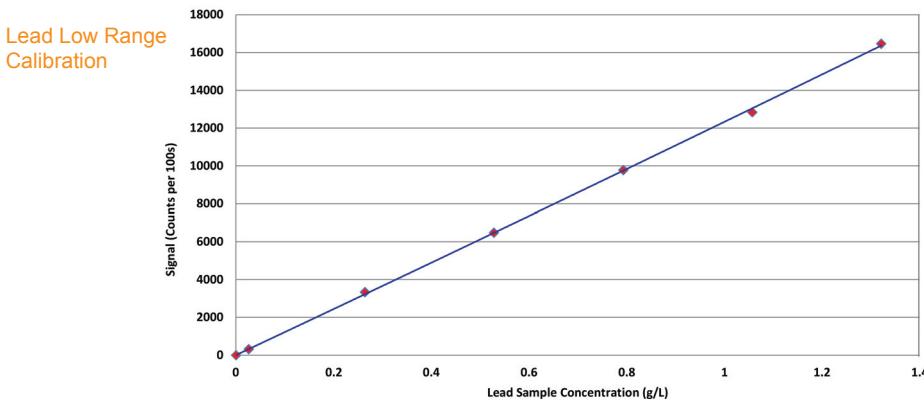
# MWD XRF

**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 sulfur and lead 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.



**Sulfur Precision**  
Typical repeatability ( $r$ ) and reproducibility ( $R$ ) values in diesel fuel, at 95% confidence.  
300 s measurement time.

Sulfur Concentration (ppm)	$r$	$R$
2	0.4	1.0
8	0.7	1.2
15	0.9	1.7
100	3	6
500	6	12



**Lead Precision**  
Typical repeatability ( $r$ ) and reproducibility ( $R$ ) values in iso-octane at 95% confidence.  
300 s measurement time.

Lead Concentration (g/L)	$r$	$R$
0.03	0.0027	0.0053
0.1	0.0049	0.0097
0.3	0.0084	0.0168
0.5	0.0109	0.0217
1	0.0154	0.0308

## Product Specifications

<b>Test Method (Sulfur)</b>	ASTM D7039 and ISO 20884
<b>Dimensions</b>	37 cm (w) x 50 cm (d) x 34 cm (h)
<b>Power</b>	100-120 VAC, 47-63 HZ at 6.0 Amps/200-240 VAC, 47-63 HZ at 6.0 Amps
<b>Sample Cup Volume</b>	10 ml
<b>I/O Ports</b>	Ethernet 10/100 base T, RS232
<b>Optional Computer Interface</b>	Pentium, 100MHz, 32MB RAM/Windows 98 or newer operating system
<b>Ambient Temperature Requirements</b>	5-40°C (40-104°F)
<b>Dynamic Range</b>	Sulfur: 1 ppm to 5000 ppm; Lead: 0.002 g/L to 10.000 g/L
<b>Measurement</b>	User selectable: 30-900 s
<b>Calibration</b>	8 calibration curves. Automatic and Manual Calibration functionality.



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