

IOA8000 Intelligent Oil Analyzer



PRODUCT INTRODUCTION

Intelligent oil analysis instruments are applied in the fields of transportation equipment such as railways, subways, and ships. They are widely used for the qualitative and quantitative analysis of wear metals, additive consumption, and contaminants in lubricating oils and greases used for transmission and running parts. The uniqueness of this instrument lies not only in its superior analytical performance but also in its simplicity of use, which allows non-professionals to operate it. Its important function is the ability to analyze the elemental content in lubricating oils and greases, as well as the presence of wear elements and contaminants, within a few minutes, and the analysis can be conducted anywhere the oil is used. Intelligent oil analysis instruments are primarily used for the analysis of sulfur elements, heavy metals, wear metals, elemental additives, and contaminants in lubricating oils, greases, gasoline, diesel fuels, jet fuels, kerosene, hydraulic oils, crude oil, residual oil, wax oil, alcohol gasoline, biodiesel, and other similar petroleum products.

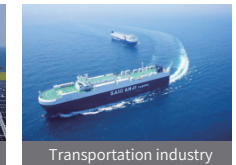
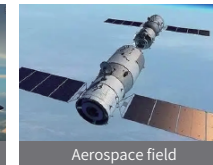
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MAIN FEATURES

- Utilizing HAPG polarizing targets effectively enhances the sensitivity for light elements.
- Easy to operate, with automatic sample introduction and one-click completion of multiple sample tests, rapid detection within a minute makes "oil change based on quality" possible.
- High resolution and repeatability make "accurate measurement" possible; focused calibration and analysis have been conducted for the concentration points of in-service railway oils and the special elements of concern for railway oils. Data and curves are embedded into the device, making it more closely connected with field applications.
- Extremely cost-effective, capable of analyzing various common elements, making "comprehensive analysis" possible.
- Lubricating oils and greases can be directly placed into the oil box for testing without the need for heating, dissolving, or other steps that would destroy the sample. The entire testing process is odorless and free of harmful gases, eliminating the need for a fume hood, thus providing health protection for laboratory personnel.
- Equipped with a customized method package for the elemental analysis of railway lubricating oils and greases, enabling direct quantitative analysis of wear metals and additive elements in greases. It can analyze multiple elements such as Fe, Cu, Si, Zn, Ca, S, Cl in gear oils, diesel engine oils, hydraulic oils, axle box bearing greases, and traction motor greases, achieving more targeted detection, making the testing more convenient and the data more accurate.
- Low cost of consumables and minimal consumption.

APPLICATION FIELD



CORE PARAMETERS

Content range:	2ppm-99.99%
Analysis method:	Energy dispersive X-ray fluorescence analysis method
Detector:	SDD/Fast SDD detector, with a minimum resolution of 130eV/125eV
Testing time:	30-30 S

TECHNICAL PARAMETER

Project	Data
Analysis Element Range:	All elements from Magnesium (Mg) to Uranium (U)
Test Subject:	Solids, powders, liquids
Content Range:	2ppm-99.99%
Analysis Method:	Energy Dispersive X-ray Fluorescence (EDXRF) analysis method
Detector:	SDD/Fast SDD detector, with a resolution as low as 130eV/125eV
Operating Temperature:	-10°C-+50°C
Operating Humidity:	<90%
Detection Limit:	Detection limit for S element in fuel is 10ppm/2ppm
Controllability:	One-click test, no need to select a specific test mode
Detection Time:	30-300S