

OILA-I Oil Emission Spectrometer

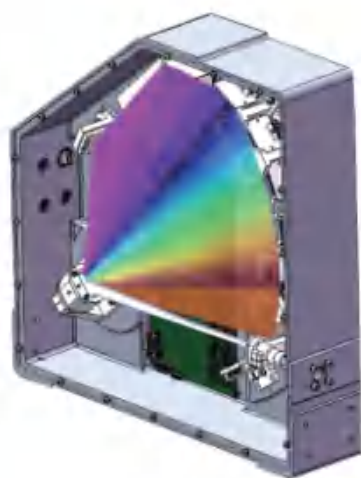
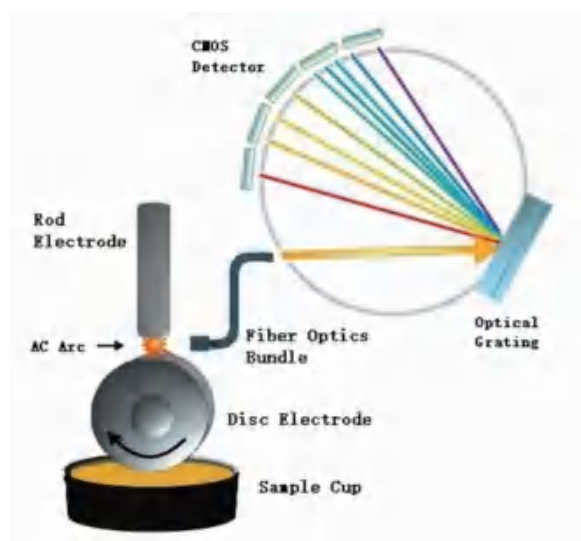
Introduction

OILA-I Oil Emission Spectrometer is as a proven means of precisely determining element composition of wear metals, pollutants and additives in lubricating oil, hydraulic oil, heavy fuels coolant and electrolyte. It is used as both a quality control tool and machine health monitor.

Oil Emission Spectrometer, also known as the rotating disc Electrode Atomic emission spectrometer (RDE-AES), is a standard analytical instrument for oil element detection recognized in the global market. It is specially used to accurately quantify the composition of trace elements in various industrial oils and liquids.

OILA-I provides simultaneous multi-element analysis in tens of seconds without using gases and cooling water.

It is an effective tool for preventive maintenance of equipment.



Features

● *Fast and Easy to Operate*

- No sample preparation required without the sample dilution or preheating required by other technologies
- No gases and cooling water required
- Tens of seconds analysis time
- Minimal training/background required to operate
- No highly skilled or trained users are required

● *Stable and Reliable Structure*

- Classical Paschen-Rungel optical path structure
- High precision multi-CMOS acquisition system
- Full spectrum measurement while ensuring good resolution and accuracy
- Overall structural light chamber and seismic system design to ensure stability

● *Human Safety Protection Design*

- Humanized excitation chamber design, more convenient sample replacement.
- Excitation chamber door safety interlock, electromagnetic shield design, to protect the safety of users.



● **Intelligent Oil Analysis and Diagnosis Platform**

- Integrating oil data trend tracking analysis and oil condition automatic diagnosis function;
- Multi-peak separation computing ability, a variety of digital filtering algorithm modules and adaptive background function;
- Real-time calibration, interference correction, element identification and measurement, trend analysis and diagnosis, historical tracing;
- Analysis software platform specially tailored for oil detection.



Applications

1. Industrial Oil Monitoring

Monitor the wear condition of equipment and the pollution and aging condition of lubricating oil

2. Quality Control of Lubricants, Fuels and Electrolytes

Process preparation and monitoring of derivative or pollutant concentration in fuel oil

3. Cooling System Monitoring

Monitor the element concentration in the cooling system antifreeze

4. Industrial Water Monitoring

Measuring power plant cooling water and turbine wash water provides unique system condition insights and ensure compliant disposal or reuse



Conforming Standard

ASTM D6595 Standard test method for determination of wear metals and contaminants in used lubricating oils or used hydraulic fluids by rotating disc electrode atomic emission spectrometry

ASTM D6728 Standard test method for determination of contaminants in gas turbine and diesel engine fuel by RDE-AES

NB/SH/T 0865-2013 Determination of wear metals and contaminants in used lubricating oils RDE-AES--Petrochemistry

SN/T 1652-2005 Method for determination of contaminants in Import and export gas turbine and diesel engine fuel

RDE-AES --CIQ

HB 2009 4.1-2012 Determination of wear metals in aviation working fluid
Part 1: RDE-AES--Aerospace

DL/T1550-2016 Determination of metallic copper and iron content in mineral insulating oils RDE-AES--Power industry



Specifications

Application			
Sample type	Lubricating oil,hydraulic oil,fuel oil,grease,antifreeze,cooling water,electrolyte, etc		
Analytical Element	A1,Ba,B,Ca,Cr,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Na,Si,Ag,Sn,Ti,V,Zn,etc(extensible)		
Optical System		Working Parameter	
Optical Structure	Pashen-Rungel	Operating Temperature	-10℃~40℃
Spectral Region	201nm-810nm	Storage Temperature	-40℃~65℃
Focal Distance	400mm	Operating Humidity	0-95%RH,condensation free
Detector	Highly sensitive CMOS array	Injection Volume	≤2ml
Temperature Control	Thermally stabilized; 37℃±0.1℃(adjustable)	Injection Mode	Rotating disc electrode
Power Source		Consumable	
Voltage Input	220V/50Hz	Top Electrode	Spectral pure graphite rod electrode
Power Consumption	≤500W	Bottom Electrode	Spectral pure graphite disc electrode
Output type	AC arc	Sample Cup	High temperature oil cup
Mechanical Specifications		Standard Sample	
Dimensions(mm ³)	500(w)×720(H)×730(D)	Standard Oil	0#,10#,50#,100#,...
Weight	About 82kg	Standard Solution	1000ppm,...

Standard Packing list

Item No.	Description	Q'ty	Remarks
1	OILA-I Oil Emission Spectrometer	1set	
2	USB Flash Disk	1 个	Include instructions and software
3	Certificate of Quality	1pc	
4	Fuse (3A)	2pcs	
5	Electrode Sharpener	1set	
6	Rotating Disc Electrode	50pcs	
7	Graphite Rod Electrode	25pcs	
8	Sample Cup	50pcs	
9	Standards Oil (0ppm、100ppm)	1bottle/each, 200g/bottle	Oil samples can not be exported, it is recommended that customer buy locally
10	Power cable of main unit	1pc	
11	Comm. Cable Connecting Main Unit to PC	1pc	
12	Tool kit	1set	