

# EDX 3200S

**X-ray Fluorescence Spectrometer  
for Sulfur Analysis**

*Skyray* Skyray Instrument

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Recently, to restrict the amount of sulfur present in petrochemical products especially oils such as gasoline, diesel and lubricating oil becomes a critical environment protection program in the international society. When too much sulfur is present in the fuels, it reacts with the air dissolved in fuel and reduces its stability. Furthermore, in the burning process of fuels, Sulfur decreases the transformation of the toxic discharges and results in the erosion of the engine's fuel system. In addition, sulfur dioxide (SO<sub>2</sub>) generated in the burning process poses substantial damage to the natural environment. Therefore, sulfur control in the fuels aroused great concern all over the world.



To meet the demand of elemental analysis of petrochemicals in the current market, Skyray launched EDX 3200S X-ray fluorescence Spectrometer. EDX 3200S uses the physical test method, i.e. X-ray fluorescence spectrometry, to measure the content of the sulfur present in the petrochemicals. Its features include: rapid, precise, minimum human error and minimum sample preparation. EDX 3200S is crucial to determine whether the petrochemical products comply with the environmental regulations.

### Key Features

- Small and smooth, simple but elegant. The silver light appearance demonstrates splendor.
- Super small sealed helium gas sample chamber.
- The sample cup is designed of the same height, which ensures the measurement data to be accurate and saves the consumption of the standard sample and the gas.
- High excitation efficiency end-window X-ray tube, large area Si-PIN detector, with good dissipation capability and high stability.
- Top lighting design saves the traditional protection membrane, improves the test precision and prevents the sample from polluting the X-ray tube and Be window of the detector.
- X-ray radiation shielding design provides safety to the operators.

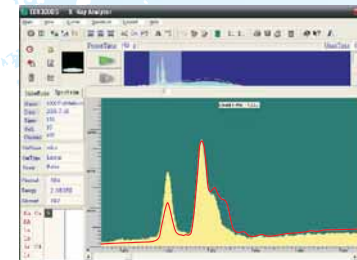
### Technical specifications

- Measurable elements: P-U
- Analysis range: 5ppm-99.99%
- Simultaneous analysis: elemental analysis of petroleum, crude oil and liquids
- Detection limit: 15 ppm (5ppm when helium gas is filled)
- Function: specifically designed for elemental analysis of petrochemicals
- Analysis accuracy:  $\pm 15\%$  when elemental content  $< 100\text{ppm}$   
 $\pm 10\%$  when elemental content  $\geq 100\text{ppm}$
- Forms of object: liquid
- Measurement time: (60~100) s
- Working temperature: (10~35) °C
- Relative humidity:  $\leq 70\%$
- Working voltage: AC 110V/220V

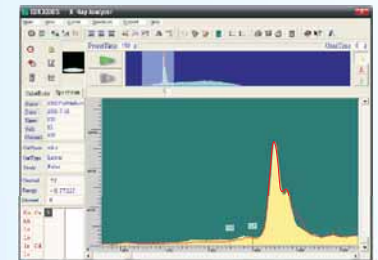
### Application fields

- Petrochemicals
- Crude Oils
- Liquids

### Test examples



1000ppm comparison  
(Real spectrum taken with Helium gas,  
red reference spectrum without Helium gas)



White oil comparison  
(Real spectrum taken with Helium gas,  
red reference spectrum without Helium gas)

### Test data analysis

Detection limit of sulfur in petroleum with Helium gas=2.51ppm  
 Detection limit of sulfur in petroleum without Helium gas=20.1ppm  
**Increased by=20.1ppm/2.51ppm=8 times**