



SPECTROLAB



sales@spectrolab.eu sales@spectrolab.co.uk www.spectrolab.co.uk

News Release NL329 June 2019

Sulfur in oil analysis

Model UVS 9000 UV Fluorescence Spectrometer

ASTM Method D 5453 EN ISO 20846, ASTM D6667, ASTM D7183,
ISO 17198, GBT 34100-2017, DB51/T 1689, GB/T 11060.8



Ultra sensitive Sulfur in oil analysis

Sulfur in combustion fuels is one of the major causes of acid rain. For this reason many countries around the world have defined regulations to control the Sulfur content in fuels for combustion engines and power plants and production sites

This unique Ultraviolet Fluorescence spectrometer is designed to measure the total sulfur content for engine oils, fuels and hydrocarbons including gases, liquids, liquefied gases and even solids . Combustion UV fluorescence is the preferred method for the quantitative determination of trace sulfur in a wide variety of hydrocarbon samples, due to a series of instrumental advantages not available with other methods.

They include linear dynamic ranges of better than 10:3; excellent stability of the system providing high precision analysis; conversion of all sulfur species into a common analyze (SO₂) and eliminating matrix effects. In addition the method provides for a quantitative and fast water stripping step to reduce the most important quenching source.

The unsurpassed signal to noise ratios is a major contributor to the very low limits of detection achievable by this technique LOD 5ppm.

Typical Measuring Accuracy

Concentration values (ppm)	Injection quantity (μ L)	RSD(%)
0.2	20	10
5	10	8
50	10	5
100	10	3
5000	10	3

Repeatability Test performance

Limit of Detection Sulfur in oil 0.06ppm

The instrument provides a fast and reliable solution for the precise determination of widely varying Sulfur content in different fuels and related matrixes from refinery applications in the daily routine sampling. Plus LPG• Condensates• Naphtha• Diesel, • Aromatics• Natural Gas• Mineral Oil, • Gasoline• Gaseous Hydrocarbons• Jet Fuel

The system can handle all samples no matter if they are crude oil-based or generated from renewable energy sources.

SPECTROLAB SCIENCE