

Joint Analytical Systems (Americas) based in Marlton, NJ is the US subsidiary of Joint Analytical Systems based in Germany. We provide unique GC solutions for lab and online applications.

Along with manufacturing The AED, JAS offers a full range of analyzers for petrochemical applications, such as Simulated Distillation Analyzers (ASTM) Refinery Gas Analyzers (UOP/ASTM), Detailed Hydrocarbon Analyzers (ASTM), and Natural Gas Analyzers (GPA/ISO).

To inform you about our products and services and to share recent technical developments, we would like to invite you to visit our booth (520 & 522) and the Annual AED user's meeting at the upcoming Gulf Coast Conference.

If you are not able to attend, but still are interested in receiving the lecture notes, send an email to: info@jas-usa.com.

Gulf Coast Conference Topics:

Sulfur Distributions in Diesel Fuels by GC-AED SimDis

A gas chromatograph coupled to an atomic emission detector (GC-AED) is capable of rapidly and accurately determining the amount of sulfur and its distribution in new formulations of Diesel Fuel. Using a new injector design, GC-AED interface, and Multi-element SimDis software the determination of total sulfur and its boiling point distribution can be determined. Examples demonstrating the precision and accuracy that can be achieved are presented for SRM diesels and commercial diesel samples.

C, S, N, V, Ni, Fe Distributions in Gas Oils and Resids by GC-AED Hi-Temp SimDis

Advances in inlet design and atomic emission detection (AED), now permit High Temperature Multi-element SimDis analyses of petroleum stocks up to 1400°F in less than 20 minutes. A new low thermal mass Split/splitless Temperature Programmable Inlet with an upper operating temperature up to 500 °C eliminates memory and carry over effects common to many PTV injectors. The AED is capable of determining elemental concentrations of C, S, N, O, Ni, V, Fe at low ppm levels. New Multi-element SimDis software also provides the boiling point distribution of these elements. Examples demonstrating the precision and accuracy achieved are presented for selected heavy petroleum samples.

Characterization of Whole Crudes by GC-AED Hi-Temp SimDis

The "Crude Assay" is the defining analytical protocol for the valuation and quality assessment of commercial crude oils. The Assay is an exhaustive scheme of physical distillation and analyses that can take weeks to perform and cost thousands of dollars. Recent advances in Hi-Temp SimDis permits the characterization of a whole crude in less than 20 minutes. The analysis can provide the yield and boiling point distribution and the amount of C, S, N, Ni, V, Fe at ppm levels for whole crudes. Examples of the analysis and its relationship to the "Crude Assay" are presented.



Get ready to meet the future Sulfur in Diesel Specifications.

Since May 2002, **Joint Analytical Systems (JAS)** has inherited the rights to manufacture, sell, support, and develop the former Agilent Atomic Emission Detector (AED). The AED, a gas chromatography (GC)-based detector, allows detection of virtually all elements, with excellent selectivity which is widely used in routine QA/QC and research laboratories. Since the transition of the AED, JAS has made several substantial improvements to have an enhanced AED system.

In June 2006, the total Sulfur specification for highway diesel in the US drops from 500 ppm to 15 ppm with implementation for all commercial diesels by 2008. The EPA and refiners estimate additional costs of at least 5 cents/gallon to produce diesel fuels that comply with the new specifications. **To meet the new Sulfur specifications, JAS offers a low investment solution with the GC-AED to challenge low concentration Sulfur measurements.** The wide dynamic range of the JAS GC-AED allows the measurement of Sulfur throughout the refining process in one instrument.

The GC-AED is highly sensitive and is able to measure multiple elements simultaneously. For example, the analysis of Carbon, Sulfur and Nitrogen can be accomplished in one injection in less than 10 minutes.

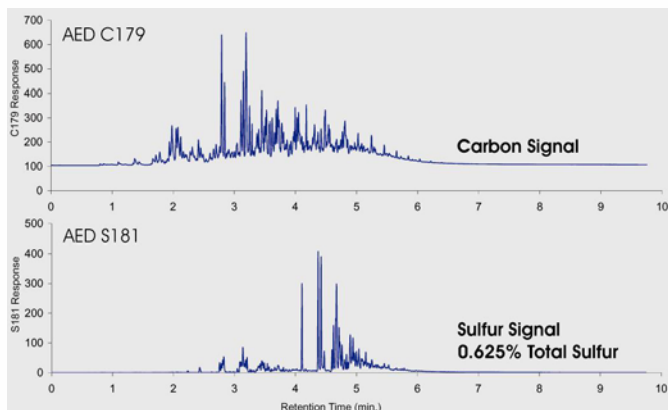


Figure 4: Process Diesel Component (0.625% Total Sulfur)

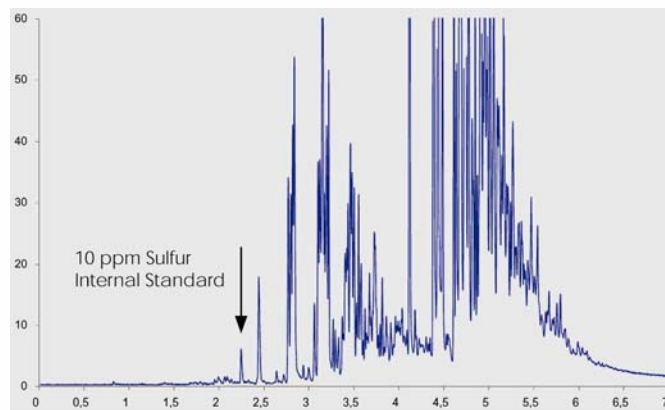


Figure 5: Process Diesel Component (0.625% Total Sulfur)

Joint Analytical Systems (Americas) Inc. is a Value Added Reseller of Agilent Technologies. Based on Agilent gas chromatographs, we manufacture customized lab analyzers, on-line analyzers and process analyzers. In addition, we also serve as a procurement option for the Agilent Micro GC.

