

SFC PETROANALYZER

SFC SYSTEM FOR ASTM METHODS D-5186 AND D-6550

Waters® SFC PetroAnalyzer System features high throughput and resolution to produce fast separations that can meet the most demanding separation needs. The PetroAnalyzer utilizes CO₂ as the mobile phase, and is equipped with a flame ionization detector (FID). The system's capability is further enhanced by easy-to-use software that allows maximum flexibility for control and method programming. The PetroAnalyzer is specifically optimized for ASTM methods D-5186 and D-6550, and offers combined analysis of aromatics in diesel fuel, olefins in gasoline, and fatty acid esters in diesel fuel; all in one system.

ASTM Method D-5186

Standard test method for determination of the aromatic content and polynuclear aromatic content of diesel fuels and aviation turbine fuels by supercritical fluid chromatography (SFC-FID).

ASTM Method D-6550

Standard test method for determination of olefin content of gasoline by supercritical fluid chromatography (SFC-FID).

SYSTEM FEATURES

- Robust equipment design
- Fast analysis and automated report generation
- Meets or exceeds ASTM performance standards
- Three applications with one instrument
- Autosampler for multiple sample analysis
- Unattended operation
- Easy-to-use software with user and data security



Applications

- Biodiesel
- Diesel
- Gasoline



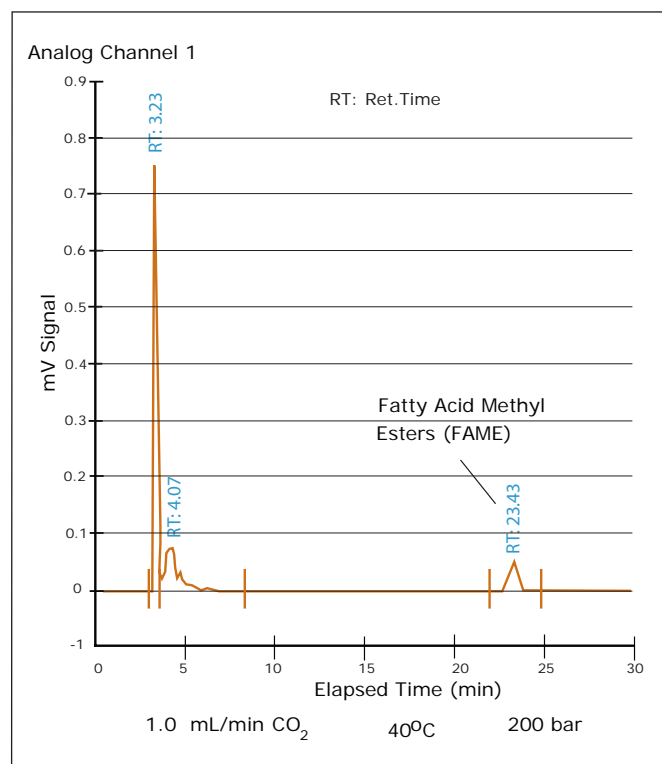
SFC PetroAnalyzer System.

TECHNICAL SPECIFICATIONS

Operating pressure:	Up to 400 bar
CO ₂ flow rate:	1.0 mL to 10 mL/min
Operating temperature:	Ambient to 400 °C
Autosampler:	596 wp, 384 wp, or 48 capped 1.5-mL vials
Detector:	Flame Ionization Detector (FID)
Optional:	UV Detector
Methods:	ASTM D-5186, ASTM D-6550, and QBDM
Software:	Empower™

BIODIESEL: QUANTITATIVE BIODIESEL METHOD (QBDM)

The PetroAnalyzer System can also be used to quantitatively determine the amount of fatty acid methyl and/or ethyl esters (biodiesel) in diesel fuel. The chromatographic method used was originally described by J.W. Diehl and F.P. DiSanzo, *J. Chromatogr. Sci.*, 45, 2007, 690-693.



Fatty acid methyl esters in diesel.

Waters

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