

SFC-FID SFC-4000

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231	Калининград (4012)72-03-81	Омск (3812)21-46-40	Сыктывкар (8212)25-95-17
Ангарск (3955)60-70-56	Калуга (4842)92-23-67	Орел (4862)44-53-42	Тамбов (4752)50-40-97
Архангельск (8182)63-90-72	Кемерово (3842)65-04-62	Оренбург (3532)37-68-04	Тверь (4822)63-31-35
Астрахань (8512)99-46-04	Киров (8332)68-02-04	Пенза (8412)22-31-16	Тольятти (8482)63-91-07
Барнаул (3852)73-04-60	Коломна (4966)23-41-49	Петрозаводск (8142)55-98-37	Томск (3822)98-41-53
Белгород (4722)40-23-64	Кострома (4942)77-07-48	Псков (8112)59-10-37	Тула (4872)33-79-87
Благовещенск (4162)22-76-07	Краснодар (861)203-40-90	Пермь (342)205-81-47	Тюмень (3452)66-21-18
Брянск (4832)59-03-52	Красноярск (391)204-63-61	Ростов-на-Дону (863)308-18-15	Ульяновск (8422)24-23-59
Владивосток (423)249-28-31	Курск (4712)77-13-04	Рязань (4912)46-61-64	Улан-Удэ (3012)59-97-51
Владикавказ (8672)28-90-48	Курган (3522)50-90-47	Самара (846)206-03-16	Уфа (347)229-48-12
Владимир (4922)49-43-18	Липецк (4742)52-20-81	Саранск (8342)22-96-24	Хабаровск (4212)92-98-04
Волгоград (844)278-03-48	Магнитогорск (3519)55-03-13	Санкт-Петербург (812)309-46-40	Чебоксары (8352)28-53-07
Вологда (8172)26-41-59	Москва (495)268-04-70	Саратов (845)249-38-78	Челябинск (351)202-03-61
Воронеж (473)204-51-73	Мурманск (8152)59-64-93	Севастополь (8692)22-31-93	Череповец (8202)49-02-64
Екатеринбург (343)384-55-89	Набережные Челны (8552)20-53-41	Симферополь (3652)67-13-56	Чита (3022)38-34-83
Иваново (4932)77-34-06	Нижний Новгород (831)429-08-12	Смоленск (4812)29-41-54	Якутск (4112)23-90-97
Ижевск (3412)26-03-58	Новокузнецк (3843)20-46-81	Сочи (862)225-72-31	Ярославль (4852)69-52-93
Иркутск (395)279-98-46	Ноябрьск (3496)41-32-12	Ставрополь (8652)20-65-13	
Казань (843)206-01-48	Новосибирск (383)227-86-73	Сургут (3462)77-98-35	
Россия +7(495)268-04-70	Киргизия +996(312)-96-26-47	Казахстан +7(7172)727-132	

Fuel Analysis by SFC-FID (for ASTM D5186 and D6550)

The SFC-FID has been developed for a range of applications including measurement of hydrocarbons in fuels.

SFC-4000 SFC-FID (for Fuel Analysis by ASTM D5186 and D6550)

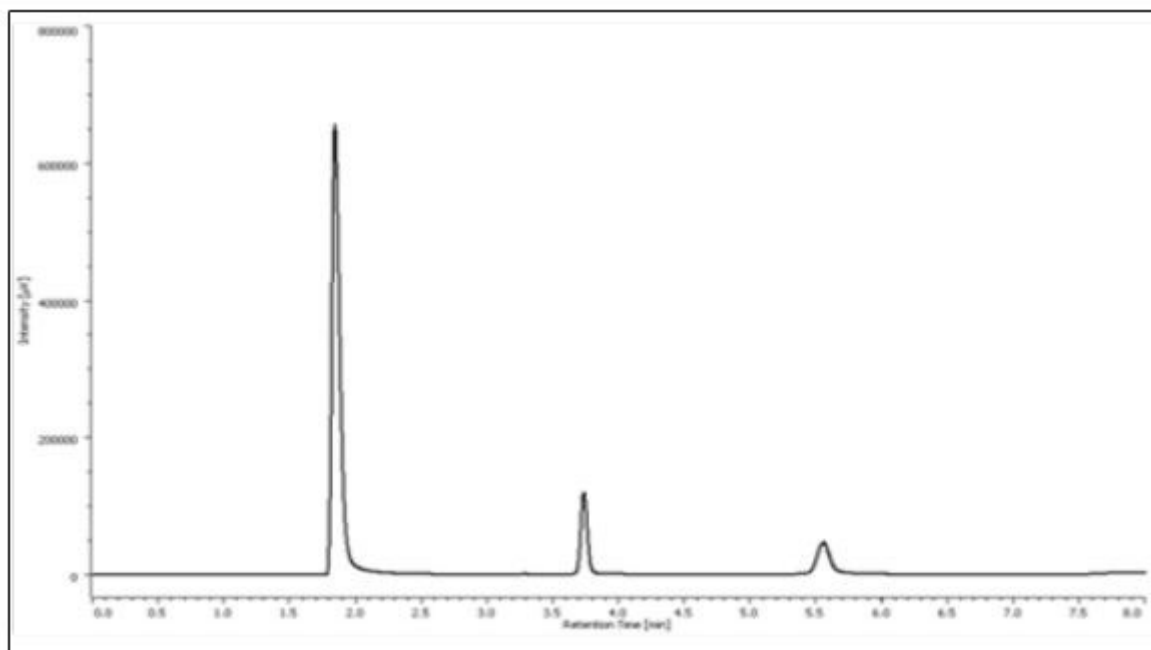
The fully automated SFC-FID system provides fast and accurate analysis using JASCO's unique high performance SFC columns – SFCpak SIL PA and SFCpak-SIL PAAGS.

The SFC-FID system comprises an analytical CO₂ pump with autosampler, column oven, and back pressure regulator, with FID (and splitter oven). Optional UV or PDA detection is available for simultaneous measurement of samples using UV absorption and FID.



Two ASTM methods D5186 and D6550 are currently in use for fuel analysis by SFC

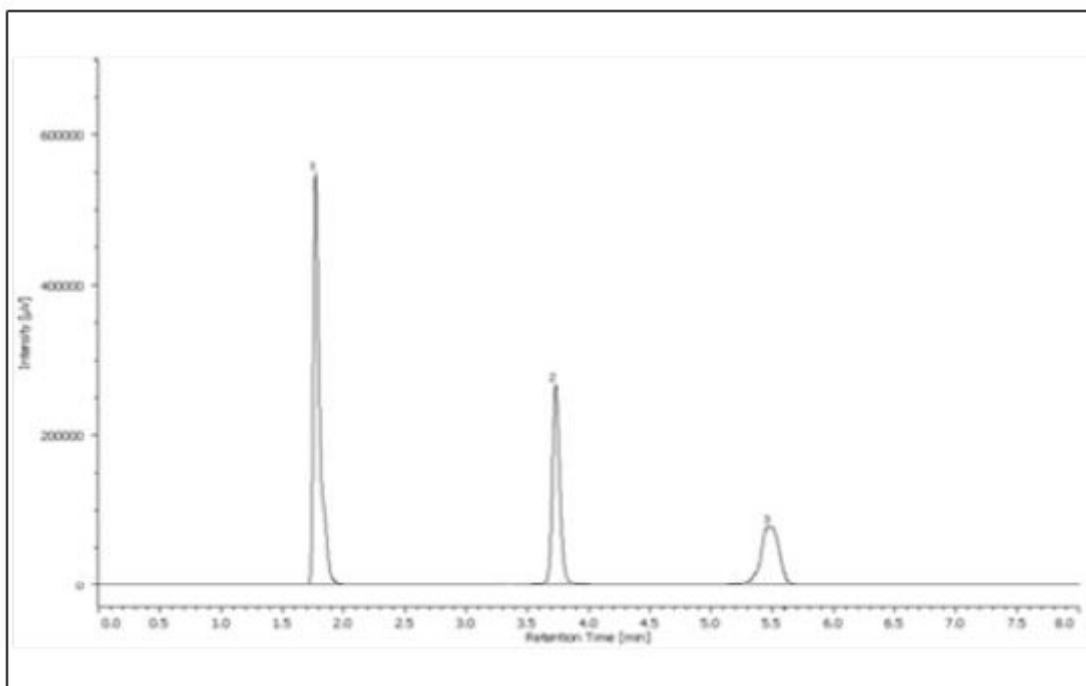
ASTM D6550-00: 10 Standard Test Method for Determination of Olefin Content of Gasolines by Supercritical-Fluid Chromatography



SFC Chromatogram of D6550 Standard Test Mixture

View application note: Determination of Olefin Content of Gasoline by Supercritical Fluid Chromatography

Peaks: 1=hexadecane, 2=toluene, 3=octadecene. Conditions: separation column=SFCpak SIL-PA (4.6 mmID x 250 mmL, 5 µm) and SFCpak SIL PA-AGS (4.6 mmID x 50 mmL, 5 µm), flow rate CO₂ =2 mL/min, injection volume=1 mL

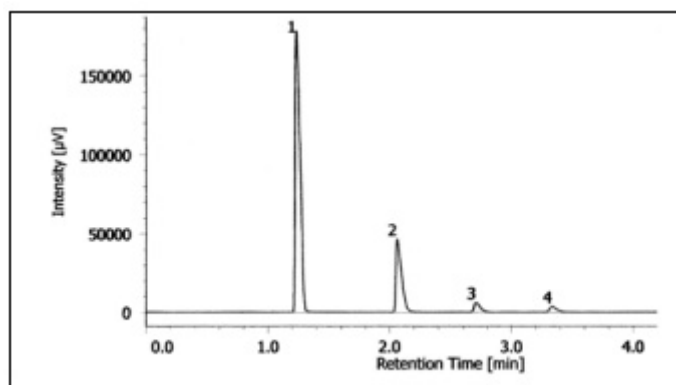


SFC Chromatogram of Commercially Available Gasoline

View application note: Determination of Olefin Content of Gasoline by Supercritical Fluid Chromatography

ASTM D5186-03: Standard Test Method for Determination of the Aromatic Content and Polynuclear Aromatic Content of Diesel Fuels and Aviation Turbine Fuels By Supercritical Fluid Chromatography

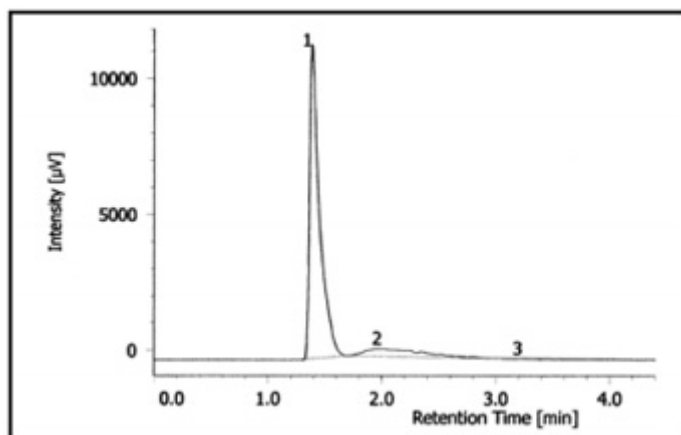
[Click here to obtain the D5186 document from ASTM](#)



SFC Chromatogram of D5186 Standard Test Mixture

View application note: Determination of Non-Aromatic and Aromatic Hydrocarbon Contents of Diesel Fuels by Supercritical Fluid Chromatography

Peaks: 1 = n-hexadecane (0.600 mg), 2 = toluene (0.0245 mg), 3 = tetralin (0.163 mg), 4 = naphthalene (0.0163 mg)
 Conditions: column = SFCpak SIL PA (4.6 mm ID x 250 mm L, 5μm), flow rate = 2.0 mL/min, column temperature = 35°C, temperature of FID = 350°C, back pressure = 20 MPa, injection volume = 1 μL, GC oven temperature = 200°C



SFC Chromatogram of Diesel Fuel

View application note: Determination of Non-Aromatic and Aromatic Hydrocarbon Contents of Diesel Fuels by Supercritical Fluid Chromatography

Conditions: injection volume = 1 µL. The other conditions are the same as in Figure 2. Nonaromatic and aromatic content is 79.77 and 20.23% (standard deviation = 0.12%)

Benefits of using Super Critical Fluid Systems for Separation

High Solubility & Low Viscosity

Greater solubility and lower viscosity than liquid phase HPLC for faster column equilibration, faster separations and higher productivity.

Wide Molecular Structure Coverage

Applicable to a wide range of molecular structures with a wide range of polarities from strongly hydrophobic to strongly hydrophilic.

Environment-Friendly

SFC uses 'green' separation solvents – generally CO₂ with alcoholic modifiers – which are much greener than other solvents generally used in HPLC.

Cost-Effective

Dramatic reduction in solvent costs for both purchase and disposal.

Simple Operation

SFC easily scales-up from analytical to preparative, method transfer is simple and robust for both chiral and achiral sample purification.

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