SHIMADZU
Excellence in Science

CoreFocus Report

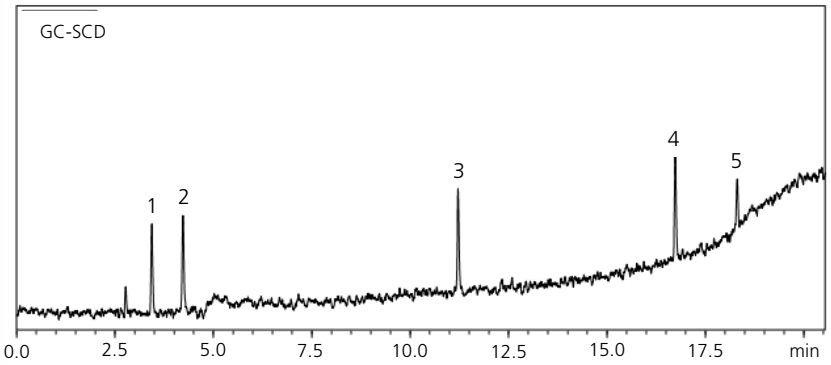
No.397

GCMS | SCD | AOC | SH Series

SH-I-1MS

Monitoring of Sulfur Components by Simultaneous Analysis

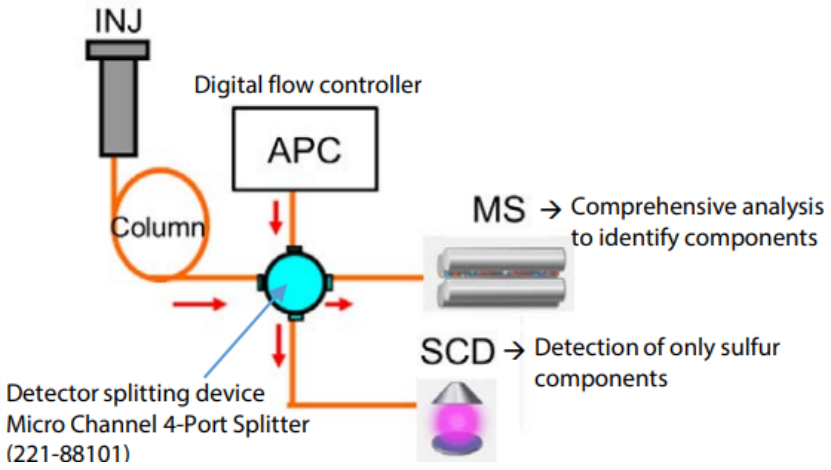
Keywords: fossil fuels



1. 1-Propanethiol
2. Thiophene
3. Benzothiophene
4. Dibenzothiophene
5. 2,2'-Dithiodipyridine (0.1 ppm each)

Model	:	GCMS-QP™2020 NX
GC		
Injection	:	SPL
Injection volume	:	1.0 µL (using AOC™-30i)
Injection temp.	:	330 ˚C
Injection mode	:	Split
Split ratio	:	1:15
Carrier gas	:	He
Carrier gas control	:	Linear velocity (45 cm/s)
Column	:	SH-I-1MS (30m x 0.32 mm I.D., 4.0 µm), P/N : 227-36011-01
Column oven temp.	:	50 ˚C - 15 ˚C /min - 330 ˚C (2 min)
Detector	:	Nexis™ SCD-2030
Interface temp.	:	280 ˚C
Electric furnace temp.	:	850 ˚C
Detector gas	:	H_2 80.0 mL/min, N_2 40.0 mL/min O_2 10.0 mL/min, O_3 25.0 mL/min
Detector splitting system*	:	Micro Channel 4-Port Splitter
Resistance tube	:	0.5 m x 0.15 mm I.D. (for both MS and SCD lines)
Detector branch ratio	:	SCD : MS = 1 : 1.03
AUX-APC	:	20 kPa
MS		
Ion source temp.	:	230 ˚C
Interface temp.	:	300 ˚C
Ionization method	:	EI
Measurement mode	:	Scan
Event time	:	0.3 s

*Detector splitting package (Splitter device + APC)
SMI FLOW DEVICE 2-Way Splitter with APC, P/N : 221-88100-41



Detector Splitting System

Source : Application News 01-00206 (JP, ENG)

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