

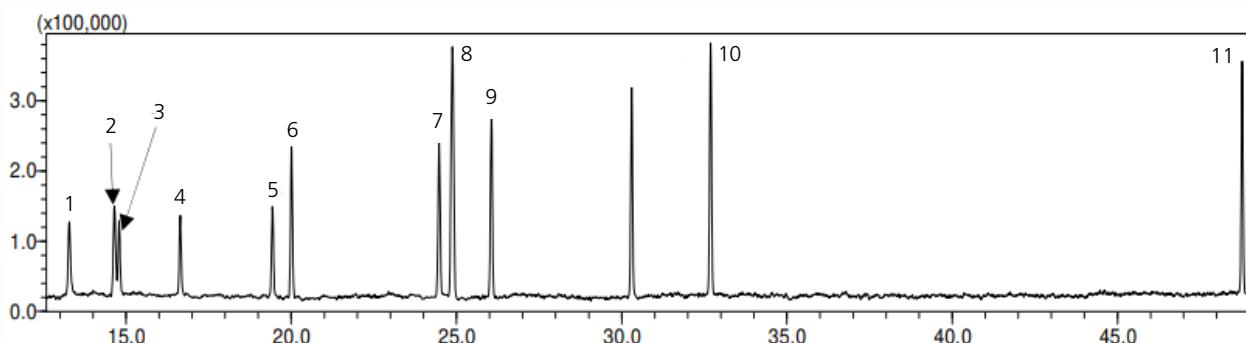
**CoreFocus**  
Report  
No.392

GCMS TD SH Series

**SH-I-624Sil MS**

**Analysis of Volatile Organic Compounds in Indoor Air**

**Keywords:** Environment , VOCs



1. Chloroform, 2. Benzene, 3. 1,2-Dichloroethane, 4. Ethyl acrylate, 5. Methyl isobutyl ketone, 6. Toluene, 7. Ethylbenzene, 8. *m*-Xylene and *p*-xylene, 9. *o*-Xylene, 10. 1,2-Dichlorobenzene, 11. Hexadecane

**System Configuration**

Model : GCMS-QP™2020 NX/TD-30  
Column : SH-I-624Sil MS (60 m x 0.32 mm I.D., 1.80 µm)  
P/N : 221-75963-60

**TD**

Tube desorb. temp. : 250 °C (10 min)  
Tube desorb. flow : 70 mL/min  
Trap cooling temp. : -25 °C  
Trap desorb. temp. : 250 °C (2 min)  
Joint temp. : 75 °C  
Valve temp. : 185 °C  
Transfer line temp. : 220 °C

**GC**

Control mode : Constant pressure (200 kPa)  
Carrier gas : He  
Injection mode : Split  
Split ratio : 10  
Column oven temp. : 35 °C (5 min) – (5 °C /min) – 280 °C (5 min)  
(Down the temperature with-10 °C/min until 100 °C)

**MS**

Ion source temp. : 230 °C  
Interface temp. : 200 °C  
Measurement mode : FASST (Scan/SIM)  
Scan mass range : *m/z* 20 - 600  
Measurement mode : SIM  
SIM monitor *m/z* : See below

No	Compound	Target ion <i>m/z</i>	Reference ion <i>m/z</i>
1	Chloroform	83	85, 47
2	Benzene	78	77, 50
3	1,2-Dichloroethane	62	64, 27
4	Ethyl acrylate	55	73
5	Methyl isobutyl ketone	43	58, 100
6	Toluene	91	92
7	Ethylbenzene	91	106
8	<i>m</i> -Xylene and <i>p</i> -xylene	91	106
9	<i>o</i> -Xylene	91	106
10	1,2-Dichlorobenzene	146	111, 148
11	Hexadecane	57	71, 85

Source : Application News M313 ([JP](#), [ENG](#))

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