

CoreFocus
Report
No.392

GCMS

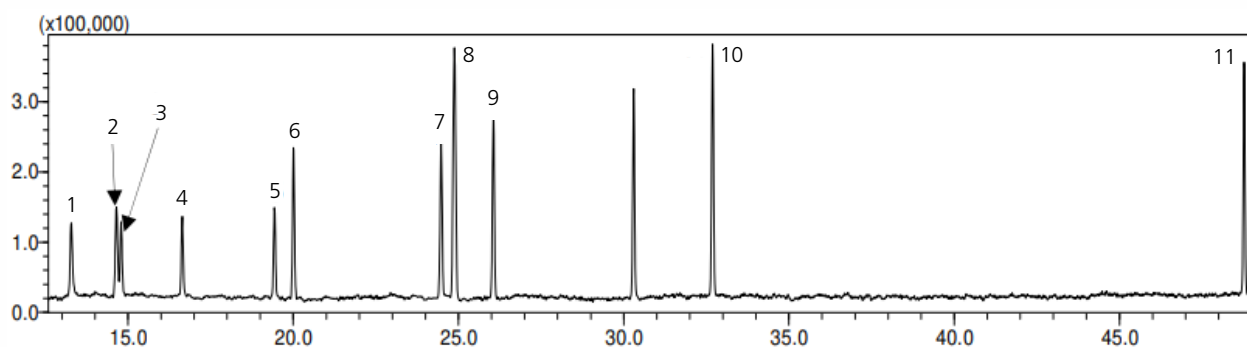
TD

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](#))

CoreFocus and GCMS-QP are trademarks of Shimadzu Corporation or its affiliated companies in Japan and/or other countries.

Shimadzu Corporation
www.shimadzu.com/an/

For Research Use Only. Not for use in diagnostic procedures.

This publication may contain references to products that are not available in your country. Please contact us to check the availability of these products in your country.

The content of this publication shall not be reproduced, altered or sold for any commercial purpose without the written approval of Shimadzu.

Company names, products/service names and logos used in this publication are trademarks and trade names of Shimadzu Corporation, its subsidiaries or its affiliates, whether or not they are used with trademark symbol "TM" or "®". Third-party trademarks and trade names may be used in this publication to refer to either the entities or their products/services, whether or not they are used with trademark symbol "TM" or "®".

Shimadzu disclaims any proprietary interest in trademarks and trade names other than its own.

The information contained herein is provided to you "as is" without warranty of any kind including without limitation warranties as to its accuracy or completeness. Shimadzu does not assume any responsibility or liability for any damage, whether direct or indirect, relating to the use of this publication. This publication is based upon the information available to Shimadzu on or before the date of publication, and subject to change without notice.