

# Analysis of VOCs in Drinking Water

## 1. Analytical Condition

### YL6900 GC/MS System with a HS Sampler

Oven : 40 °C(7min) -> 5 °C/min to 70 °C(0min) -> 10 °C/min to 150 °C(3min)

Column : HP-5MS (60 m \* 0.25 mm \* 1 µm)    Injector : Capillary 250 °C

Carrier gas : He, 1 mL/min (Split ratio 10:1)

Ion Source: 200 °C

Transfer line : 250 °C

Scan range: 35-300

Emission current:: 50µA

EM Gain: 100000

### Versa Headspace

Platen/Sample Temp: 80°C

Valve Oven Temp: 120 °C

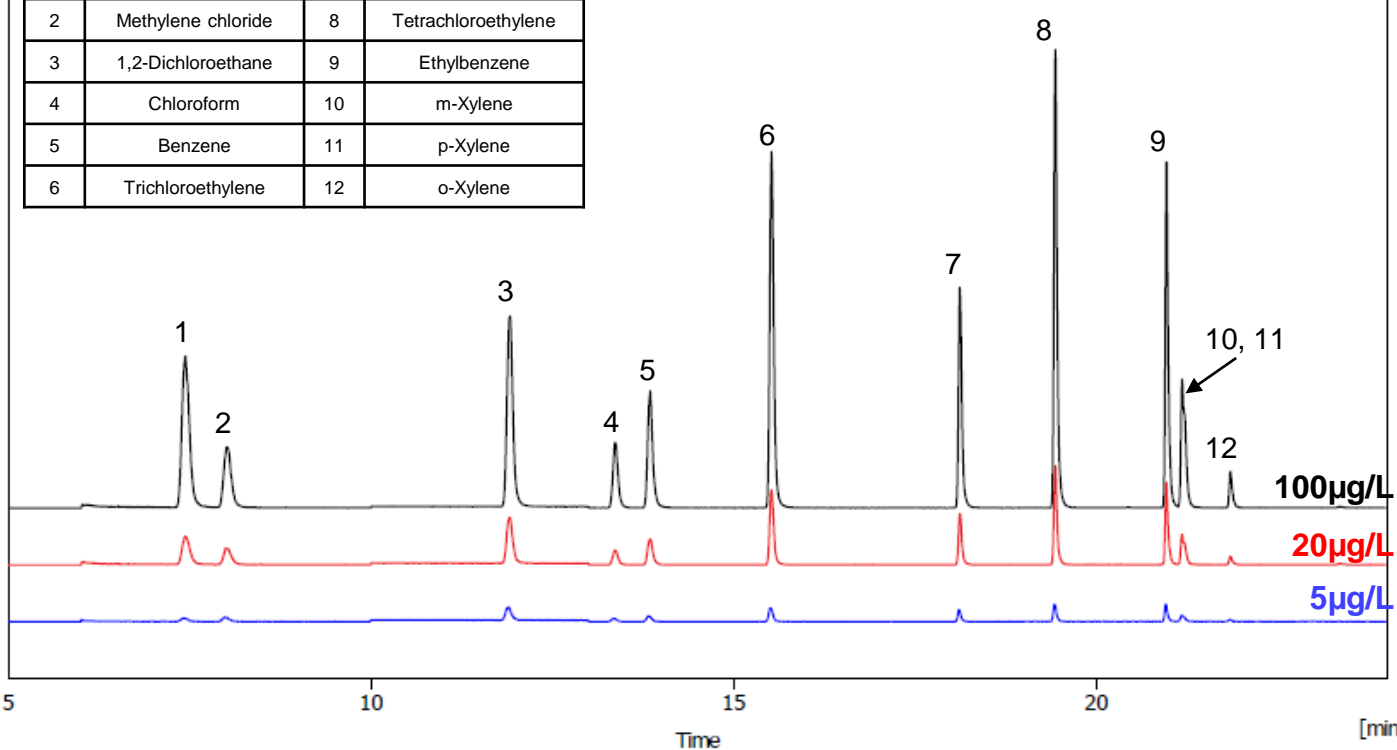
Transfer Line Temp: 140 °C

Sample Equil. Time: 30min

Injection volume: 1mL

## 2. Chromatogram (Scan Mode)

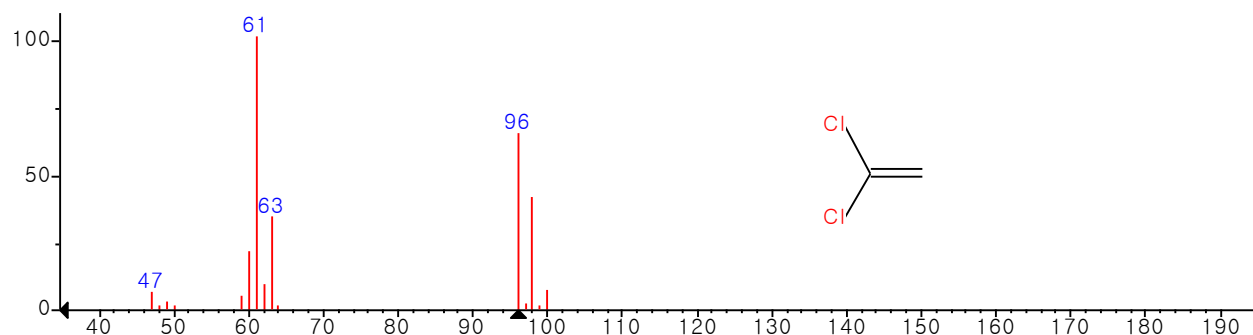
1	1,1-dichloroethylene	7	Toluene
2	Methylene chloride	8	Tetrachloroethylene
3	1,2-Dichloroethane	9	Ethylbenzene
4	Chloroform	10	m-Xylene
5	Benzene	11	p-Xylene
6	Trichloroethylene	12	o-Xylene



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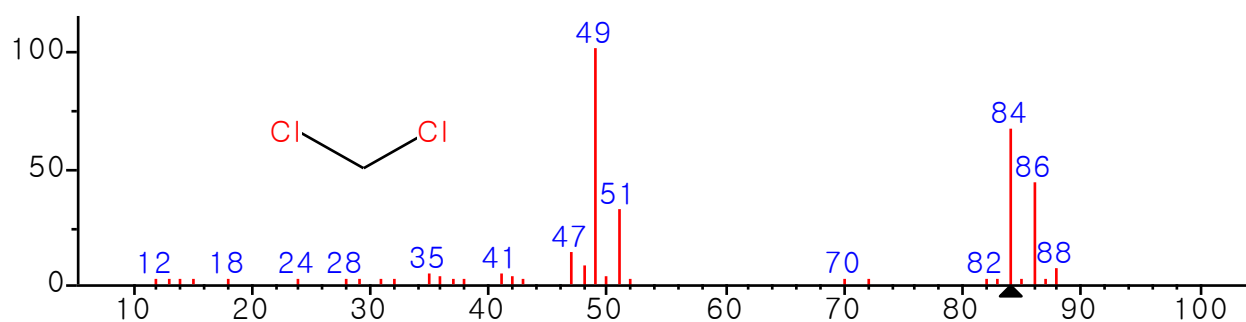
## 3. Spectra

### 1. 1,1-dichloroethylene



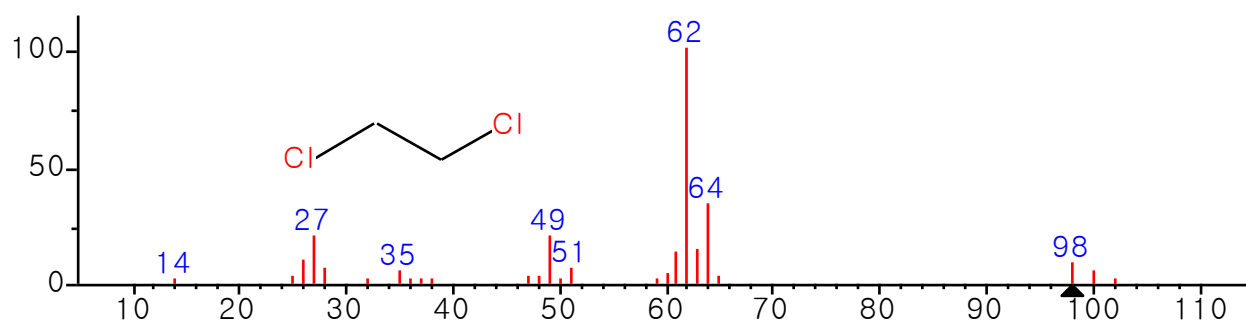
(mainlib) Ethene, 1,1-dichloro-

### 2. Dichloromethane



(mainlib) Methylene Chloride

### 3. 1,2-dichloroethane

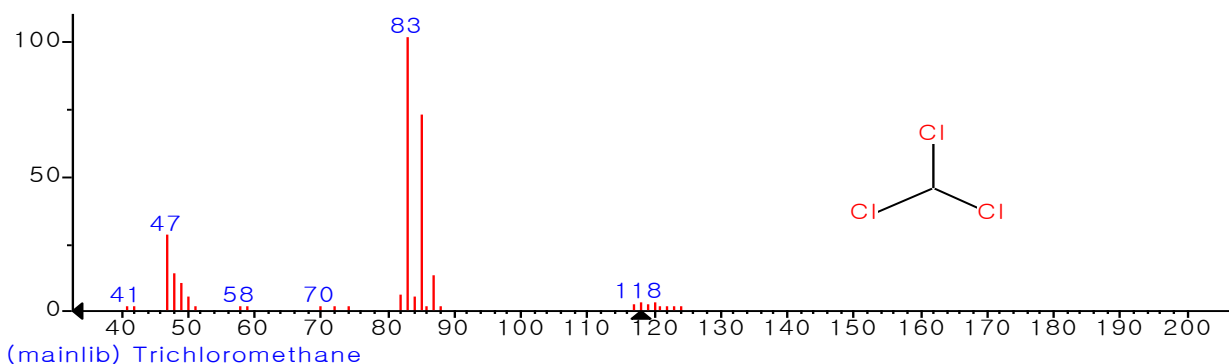


(mainlib) Ethane, 1,2-dichloro-

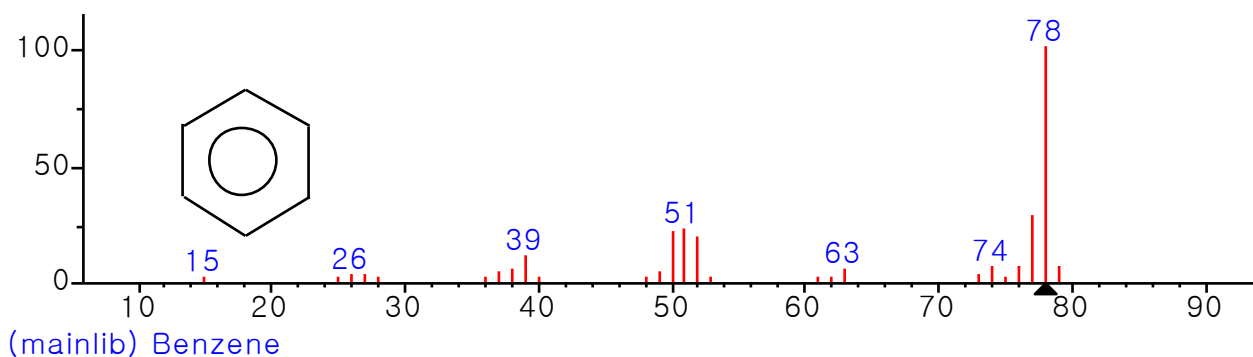
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### 3. Spectra

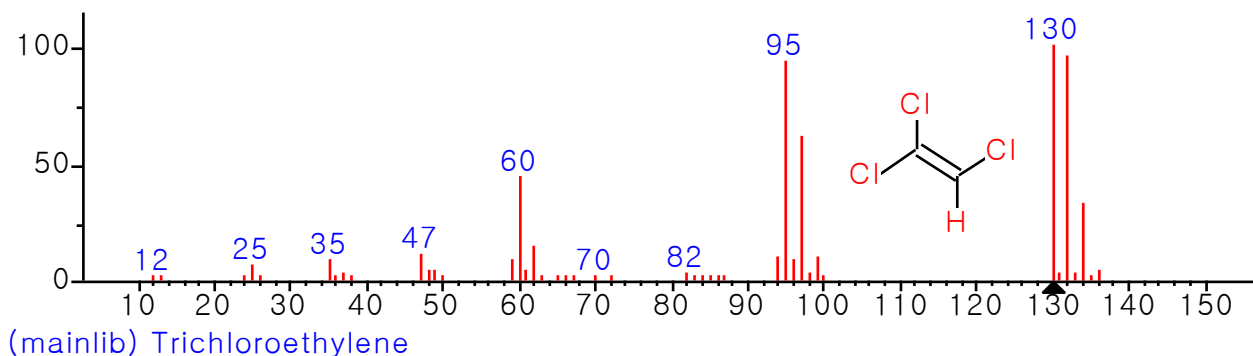
#### 4. Chloroform



#### 5. Benzene



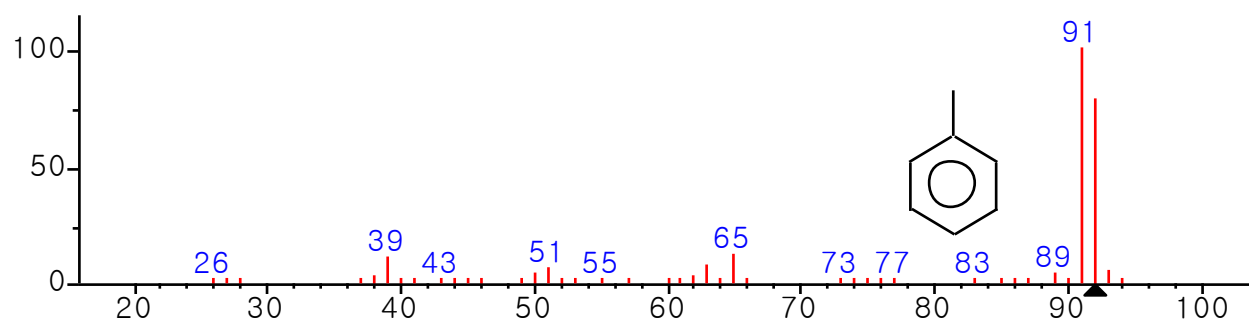
#### 6. Trichloroethylene



## Analysis of VOCs in Drinking Water

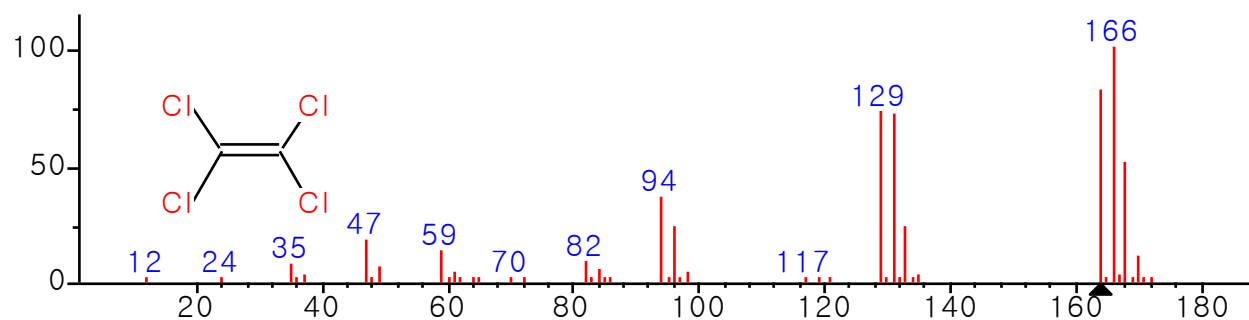
### 3. Spectra

#### 7. Toluene



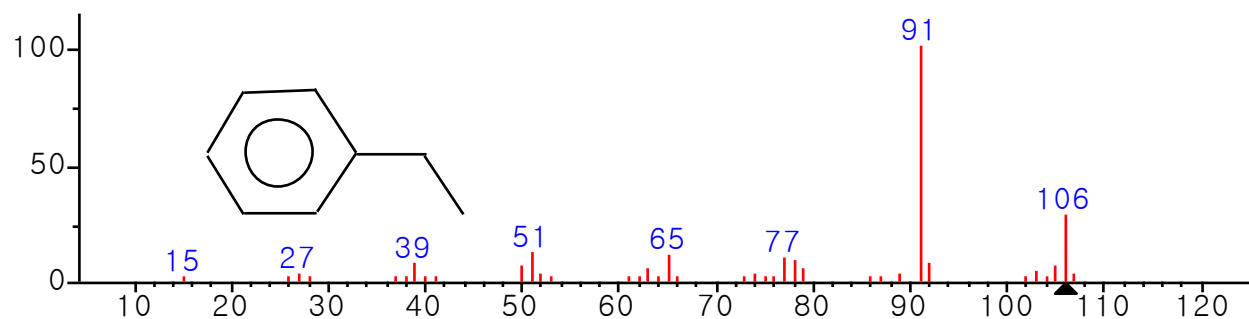
(mainlib) Toluene

#### 8. Tetrachloroethylene



(mainlib) Tetrachloroethylene

#### 9. Ethylbenzene

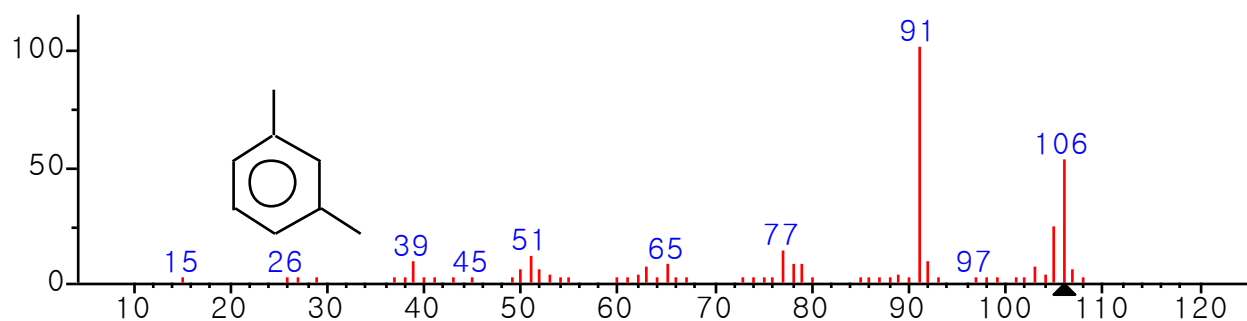


(mainlib) Ethylbenzene

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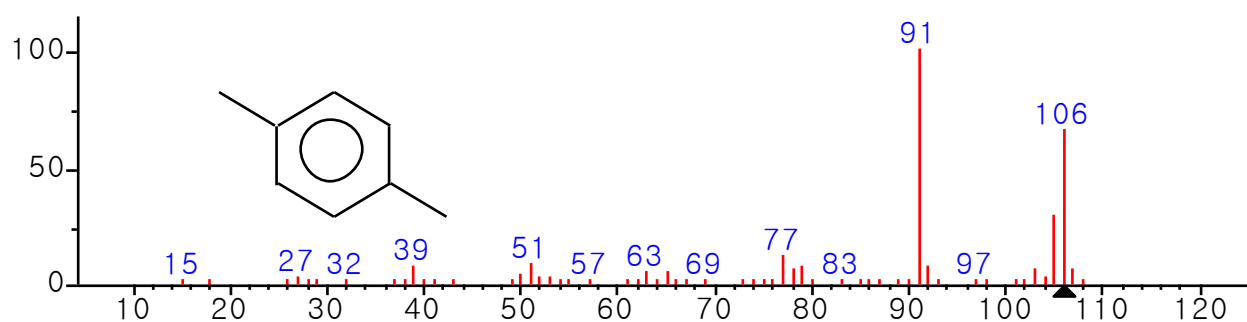
### 3. Spectra

#### 10. m-Xylene



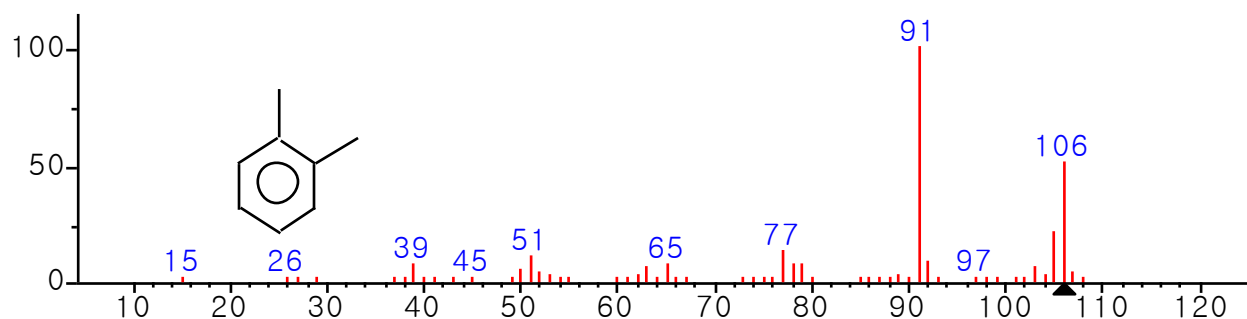
(mainlib) Benzene, 1,3-dimethyl-

#### 11. p-Xylene



(mainlib) p-Xylene

#### 12. o-Xylene



(mainlib) o-Xylene



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### 4. Sim List

	Name	CAS No.	RT	Q1	Q2	Q3	Start Time(min)
1	1,1-dichloroethylene	75-35-4	7.440	61	96	98	6
2	Dichloromethane	75-09-2	8.011	49	84	86	
3	Chloroform	67-66-3	11.900	83	85	47	10
4	1,2-dichloroethane	107-06-2	13.366	62	64	49	13
5	Benzene	71-43-2	13.848	78	51	63	
6	Trichloroethylene	79-01-6	15.525	130	132	95	15
7	Toluene	108-88-3	18.121	91	92	65	
8	Tetrachloroethylene	127-18-4	19.437	166	129	94	19
9	Ethylbenzene	100-41-4	20.967	91	106	51	
10	m-Xylene	108-38-3	21.179	91	106	51	
11	p-xylene	106-42-3		91	106	51	
12	o-xylene	95-47-6	21.851	91	106	51	