

Introduction and analysis of roasted seaweed by Thermal Desorption using MonoTrap for TD. Compounds such as di-methyl sulfide and β -Ionone recognized as the smell of ocean were detected.

Protocol

Roasted seaweed

Roast and cut the seaweed

Head Space Sampling
MonoTrap RGC18 TD x 1 pcs

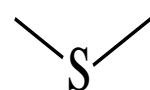
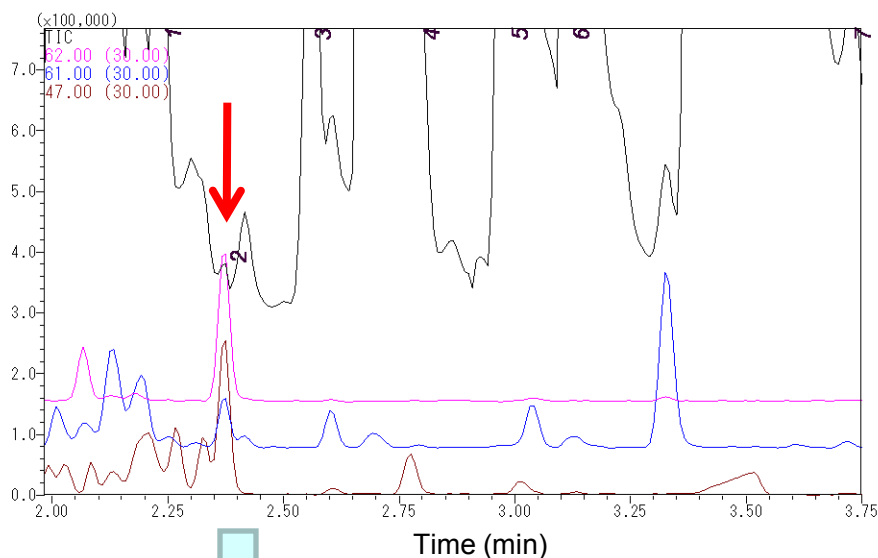
At 40 °C for 3 hours



TD/GC/MS

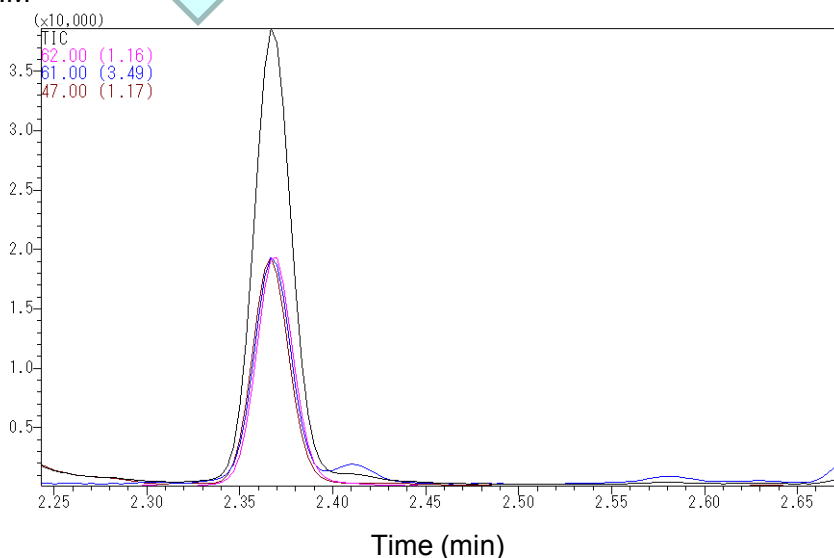
System	: GC/MS-Thermal Desorption (T-Dex II)
Column	: InertCap Pure-WAX 0.25 mm I.D. x 30 m, df = 0.25 μ m
Col.Temp.	: 40°C (5 min) - 6°C/min - 250°C
Carrier Gas	: He, 1mL/min (constant flow)
Desorb Temp.	: 200°C
Time	: 5 min
Flow	: 5mL/min
Split	: Splitless
Cryo Trapping	: -150°C
Injection Temp.	: 250°C
Detection	: MS Scan (28.5 - 600 m/z) :SIM(62,61,47 for Dimethyl sulfide)

<Scan>

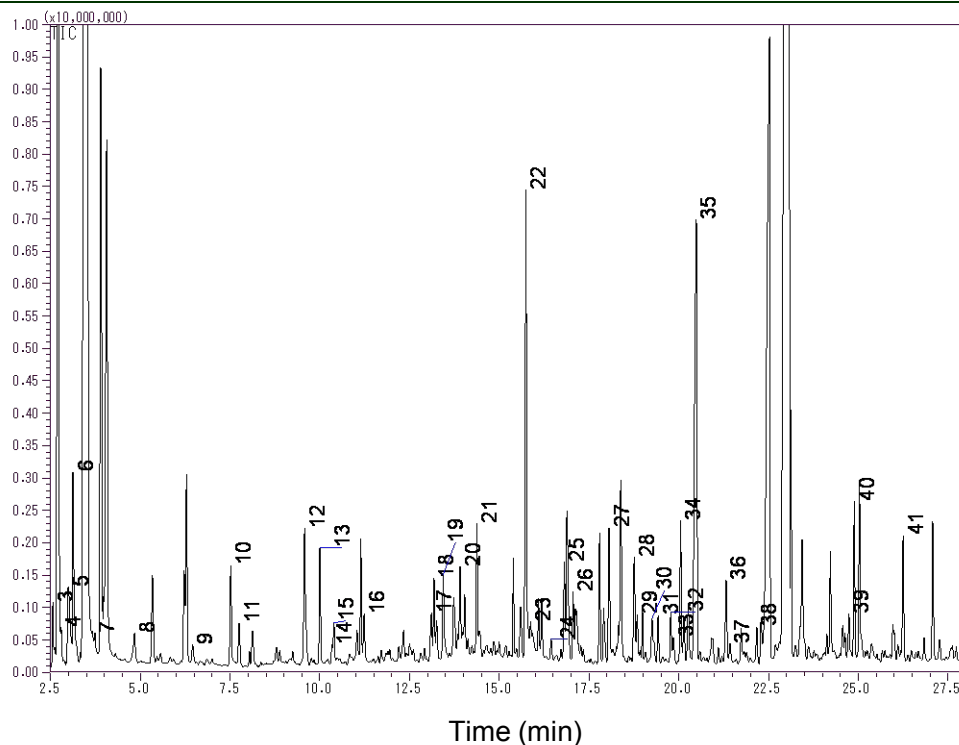


Dimethyl sulfide
m/z; 62,61,47

<SIM>



Dimethyl sulfide was well
detected by SIM



1.	Acetaldehyde	22.	Nonanal
2.	Dimethyl sulfide	23.	Trimethylpyrazine
3.	Propanal	24.	2-Octenal
4.	Methyl acetate	25.	2-Ethyl-3,6-dimethylpyrazine
5.	Trimethylamine	26.	1-Octen-3-ol
6.	Trimethylamine	27.	Decanal
7.	Isovaleraldehyde	28.	2-Nonenal
8.	Pentanal	29.	3-Caranol
9.	1-Propanol	30.	Dimethyl Sulfoxide
10.	Hexanal	31.	3,5-Octadien-2-one
11.	2-Methyl-2-butenal	32.	2,6-Nonadienal
12.	2-Ethyl-trans-2-butenal	33.	Propylene Glycol
13.	1-Penten-3-ol	34.	2,6-Dimethylcyclohexanol
14.	2-Heptanone	35.	Butyrolactone
15.	Heptanal	36.	N-Methyl-2-pyrrolidinone
16.	2-Hexenal	37.	2(5H)-Furanone, 5-methyl-
17.	Acetoin	38.	2-Dodecanone
18.	Octanal	39.	α -Ionone
19.	Acetol	40.	trans-Geranylacetone
20.	2,5-Dimethylpyrazine	41.	β -Ionone
21.	6-Methyl-5-heptene-2-one		

※Red: Compounds of Roasted Seaweed