

Easy Concentration & Analysis of Roasted Seaweed by MonoTrap - Thermal Desorption

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 1pcs

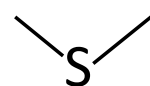
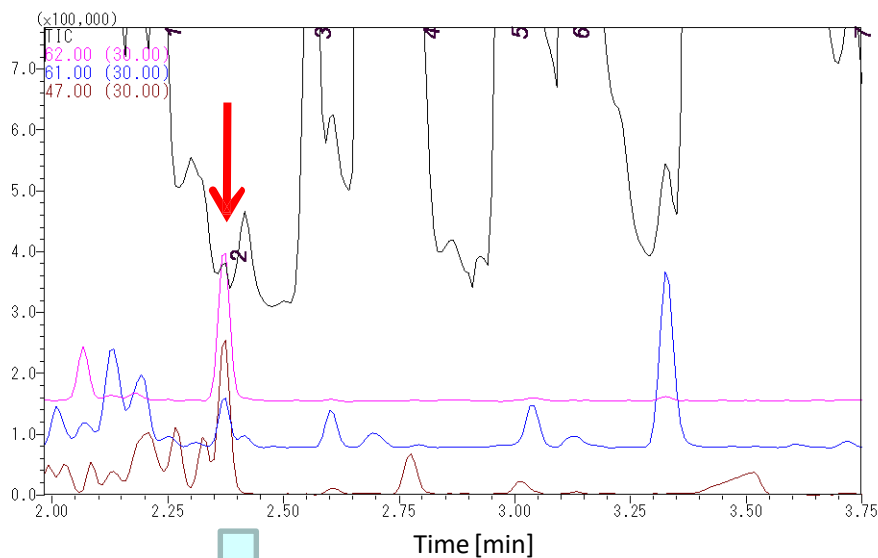
At 40 °C for 3 hours



TD/GC/MS

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

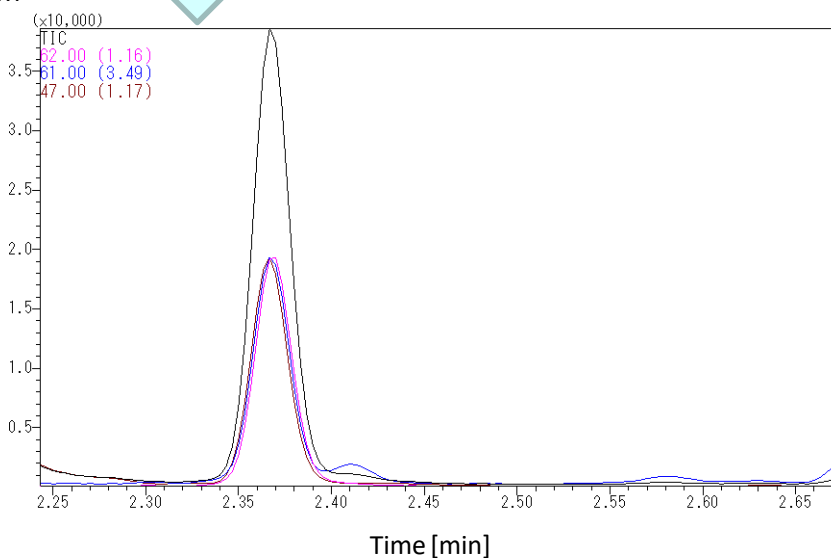
<Scan>



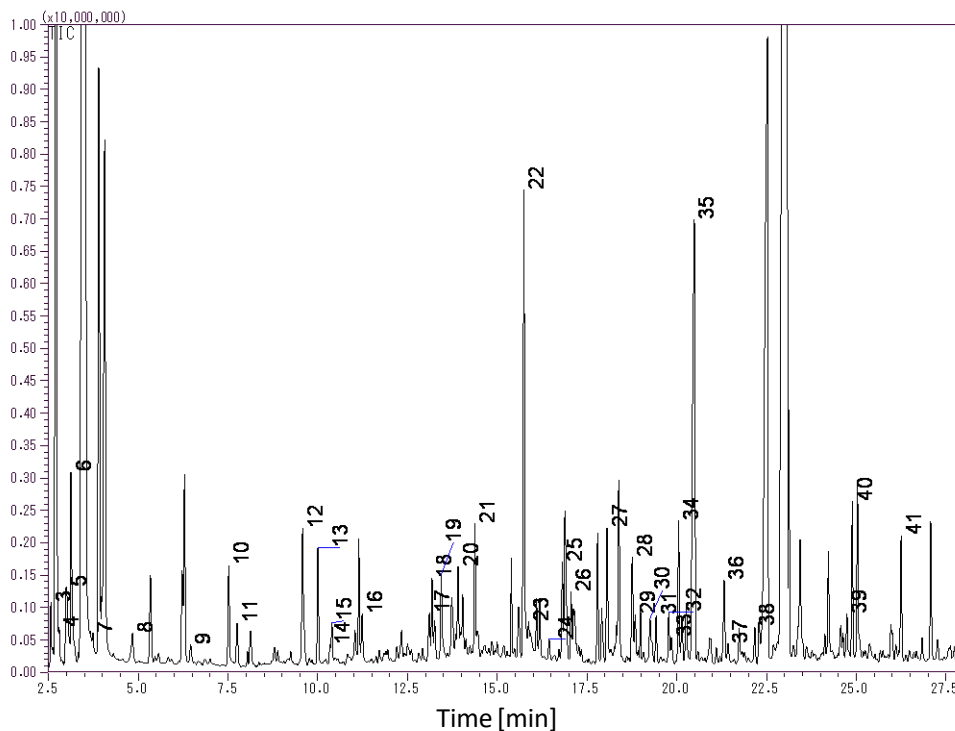
Dimethyl sulfide

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. <i>trans</i> -Geranylacetone |
| 20. 2,5-Dimethylpyrazine | 41. β-Ionone |
| 21. 6-Methyl-5-heptene-2-one | |

*Red: Compounds of Roasted Seaweed

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