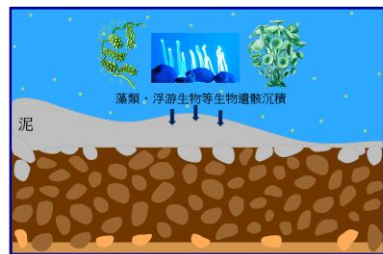
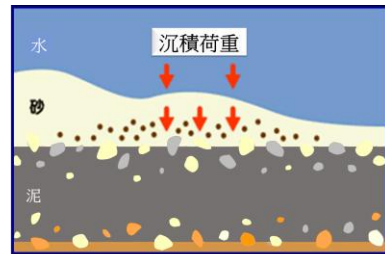


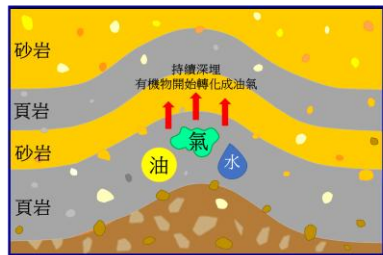
Petroleum System Laboratory



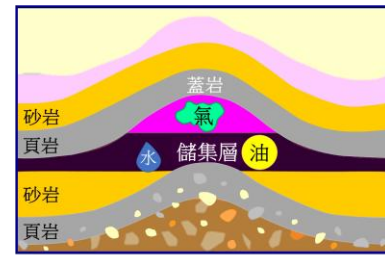
(A)



(B)



(C)

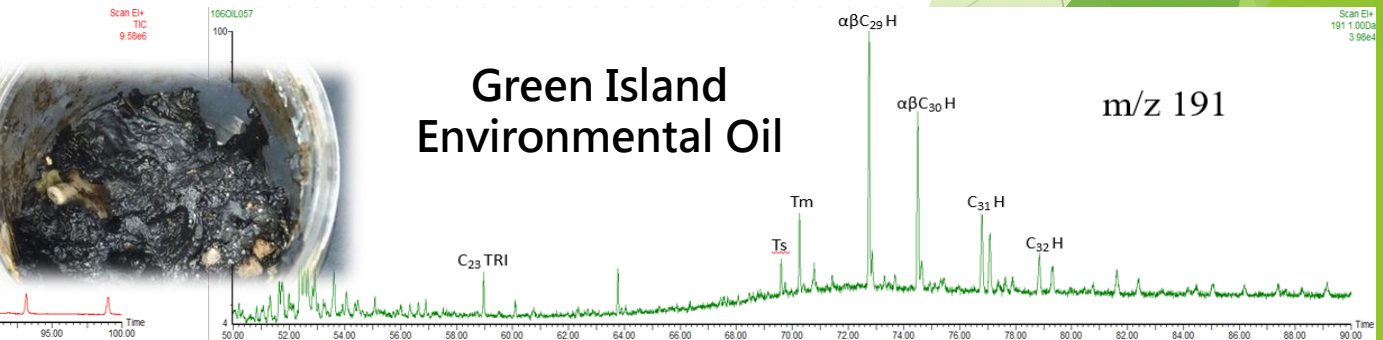
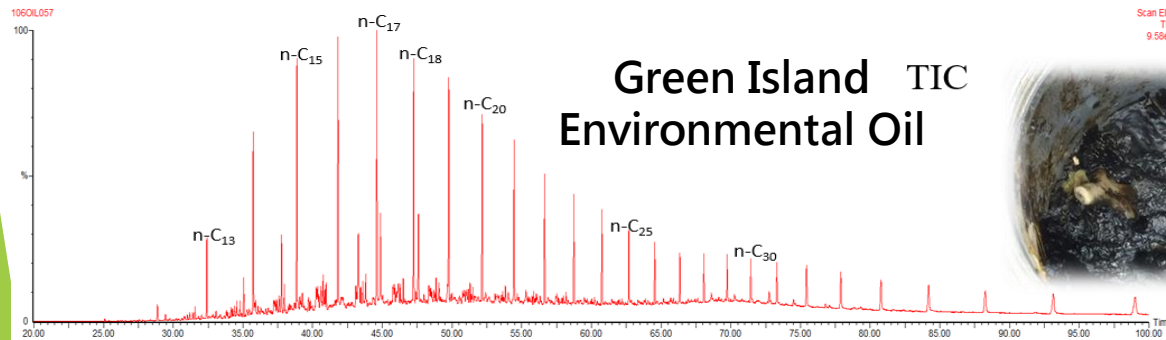
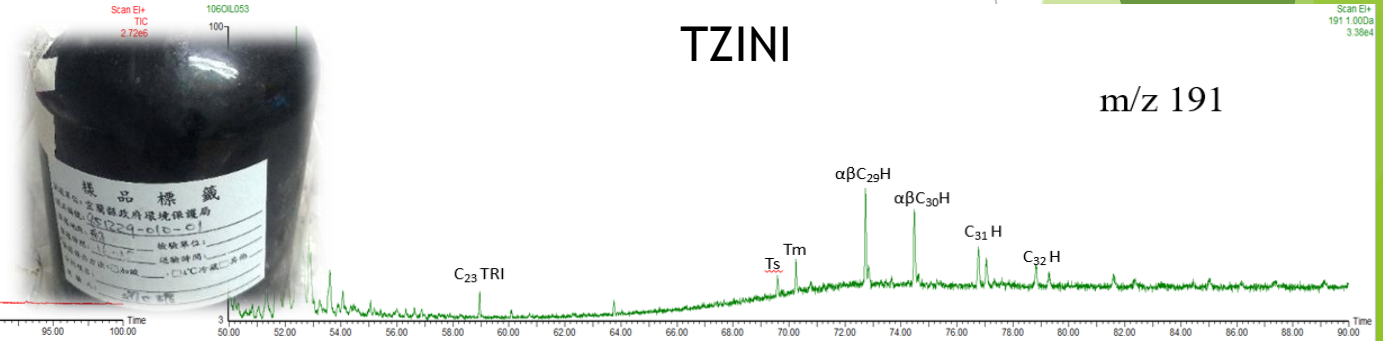
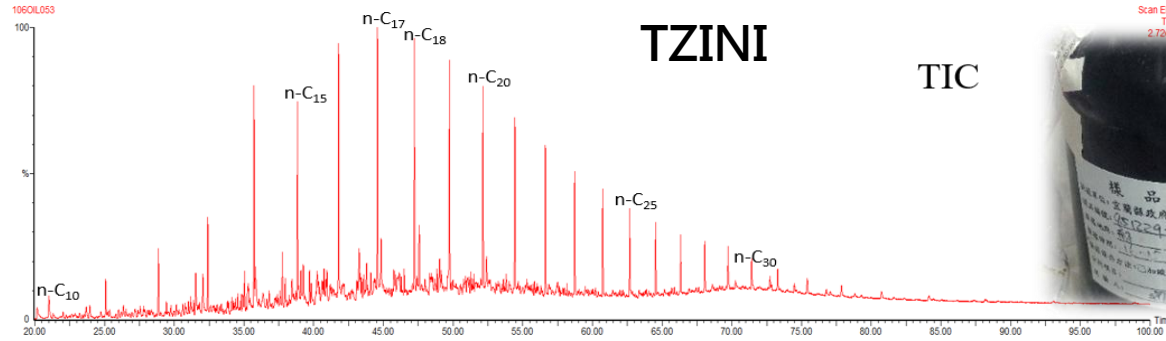
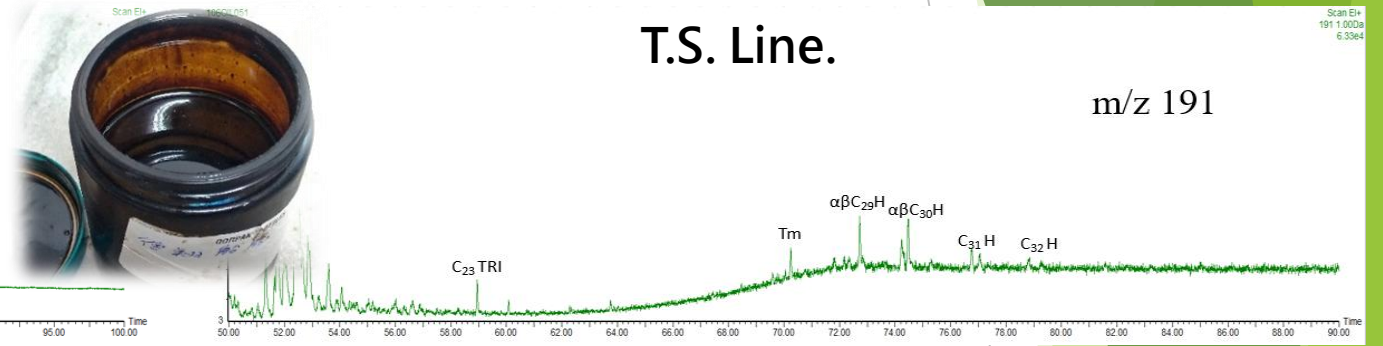
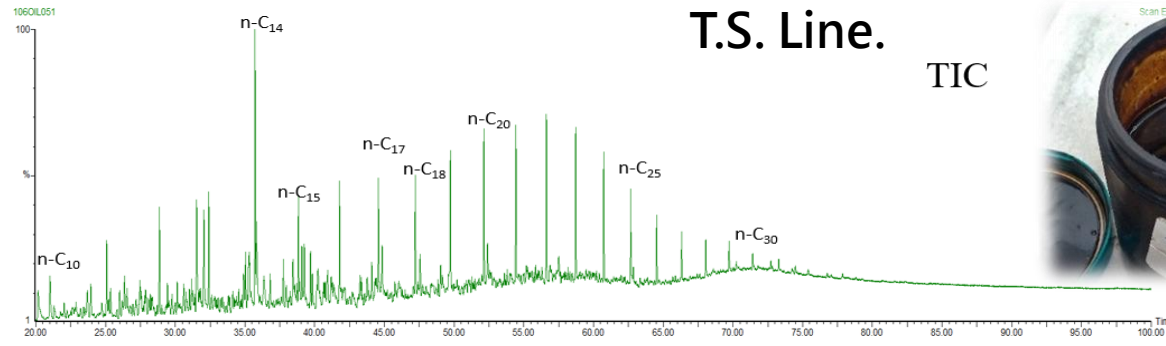


(D)

Ying-Ju Chang, Assistant Professor

Offshore oil analysis by GC-MS

- Use biomarker to source forensics of marine oil spills.
- Exploring changes in composition and residual concentrations of oil spills into different environments.

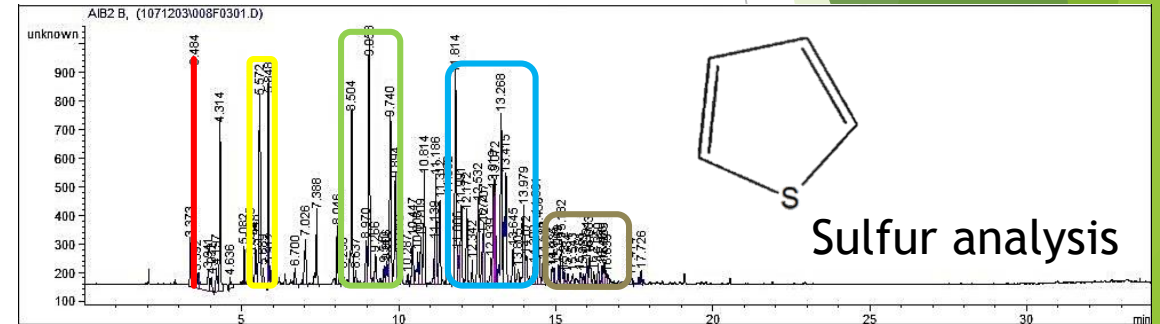
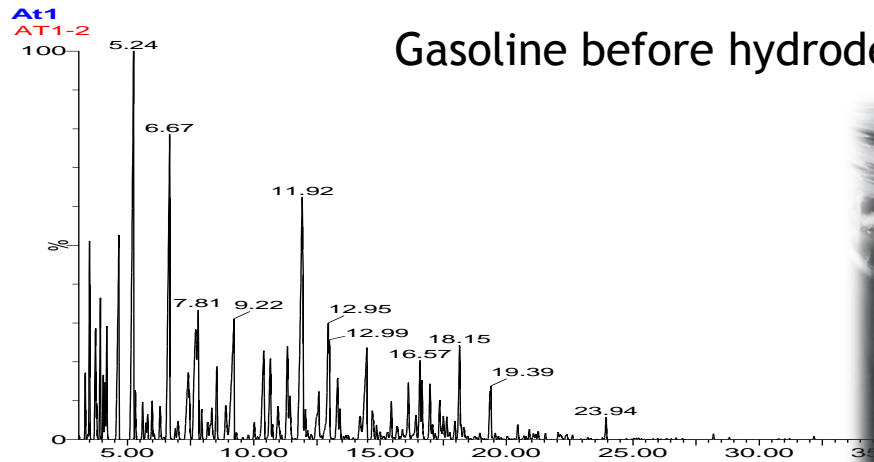


GC-MS分析 Refinery oil analysis by GC-MS

- Understand the differences in ingredients in different refining stages.
- Exploring the weathering characteristics of refined oil products in the environment.
- Degradation rate of sulfur-containing components.

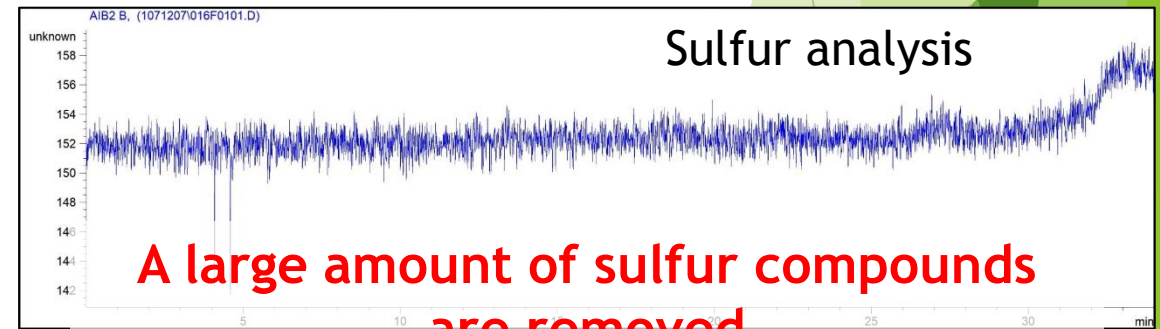
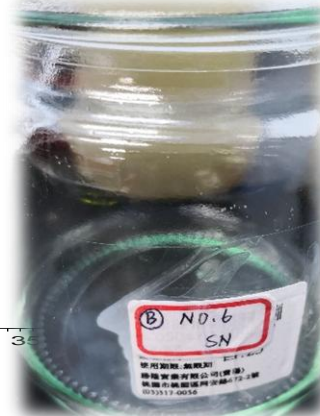
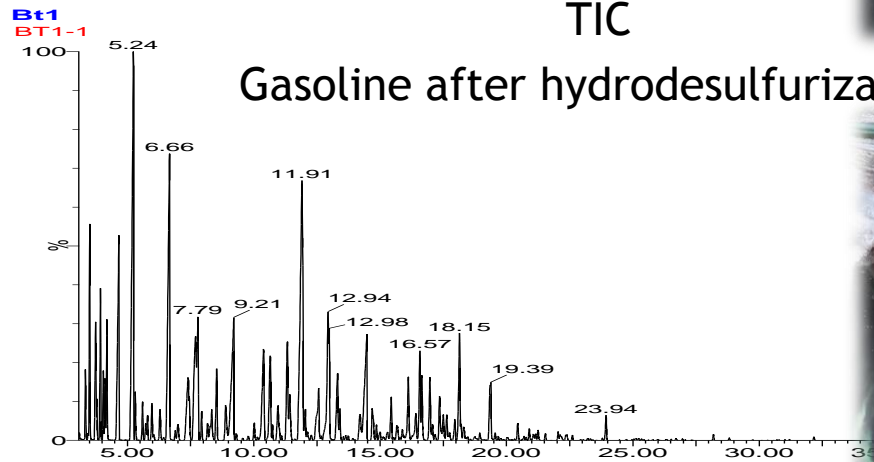
TIC

Gasoline before hydrodesulfurization



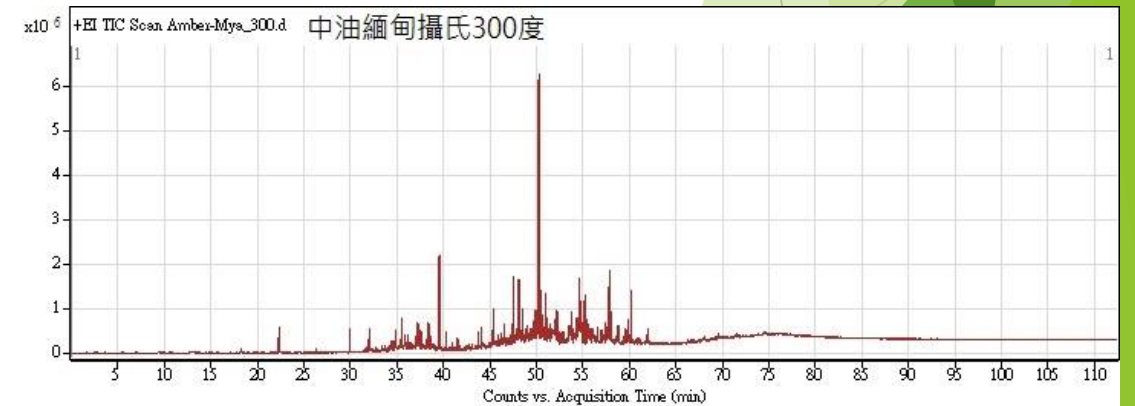
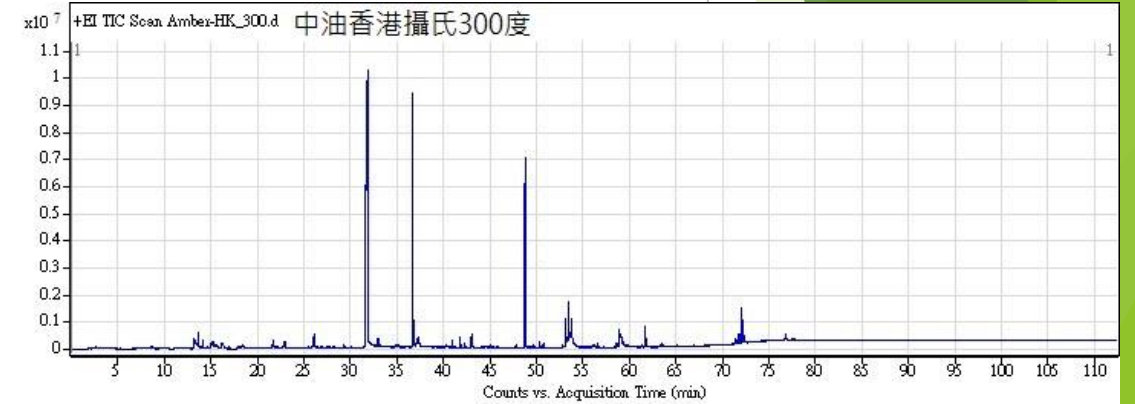
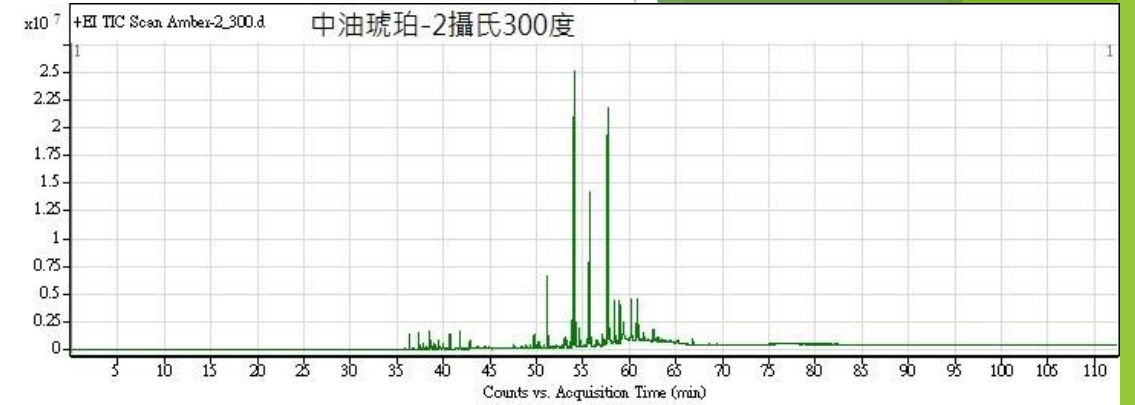
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Gasoline after hydrodesulfurization

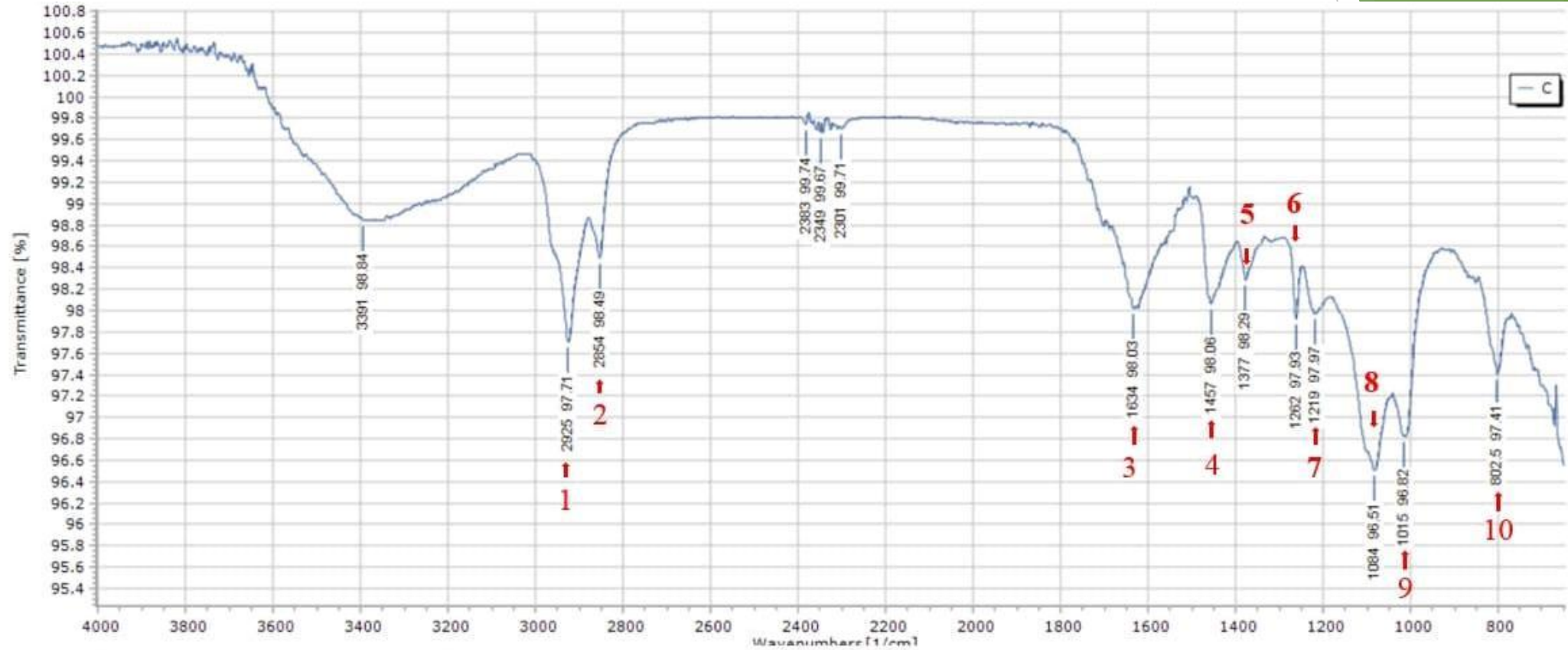


Amber analysis by GC

- Explore the differences in organic components of the world's major amber deposits.
- Identification of amber source organisms.
- Identification of amber, corals and synthetic diamonds by organic geochemistry.
- Explore the cause of blue amber coloration.



Kerogen analysis by FT-IR



- | | |
|--------|---------------|
| 1. C-H | 6. C-O |
| 2. C-H | 7. C-O or C-N |
| 3. C=C | 8. C-O |
| 4. C=C | 9. C-F or C-O |
| 5. C-O | 10. C-H |

Luxembourg's Kerogen

地質旅遊者傾向程度初步調查— 以陽明山小油坑遊憩區為例

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環境態度量表 (Environmetal Attitude Scale , EA)	3.28	5.48	5.98	0.00
您同意或不同意以下的陳述?				
● 當人們干涉了大自然，大自然時常引起災難性的後果	3.27	5.36	5.96	0.00
● 人們正在嚴重的濫用環境	3.32	5.45	6.00	0.00
● 植物和動物和人們一樣擁有存在的權利	3.35	5.70	6.00	0.00
● 大自然的平衡是非常脆弱和容易被打亂的	3.19	5.53	5.96	0.00
● 如果目前的狀況繼續，我們很快就會經歷較大的生態大 災難	3.27	5.36	5.96	0.00

- Participation in the editorial board of the Aletheia University of Tamsui Oxford Journal of Tourism, which can integrate geological knowledge into life and sightseeing, bringing geological knowledge closer to the people. Let the public understand the special nature of Taiwan's geology and achieve the goal of education.
- This study attempts to distinguish the characteristics of tourists with different geological tourist tendencies. As a reference for the future development of geological tourism or management visits to tourists in the recreation area.