

Supplementary Materials:

Table S1. TMR-GC-MS conditions applied in this study.

Instrument		Condition
Py	Furnace	400 °C
	Interface	320 °C
GC	Inlet	320 °C, split ratio 200:1
	Oven	40 °C (3 min hold) → 20 °C/min → 320 °C (5 min hold)
	Column	UA-5 (30 m length × 0.25 mm inner diameter × 0.25 µm film thickness)
MS		Scan range, m/z 10~550
		Scan speed, 5.19 scans/sec