SHIMADZU
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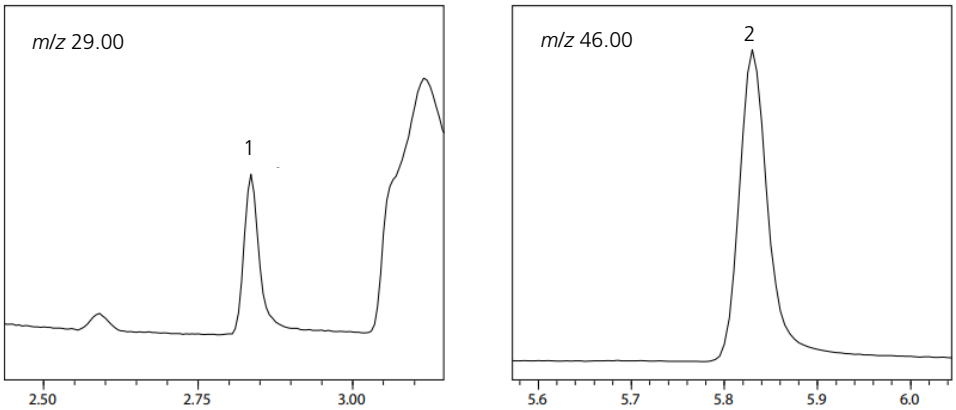
CoreFocus Report No.389

GCMS | AOC | SH Series

SH-1

Analysis of Reaction Products in Artificial Photosynthesis

Keywords: Formic acid, Form aldehyde



1. Formic acid
2. Formaldehyde (0.1 ppm each)

SIM Chromatogram of Formic acid (Left) and Form aldehyde (right)

Model	:	GCMS-QP™2020 NX
Autosampler(AOC-20i)		
Syringe	:	Elastic syringe
Injection volume	:	0.5 µL
GC		
Injection	:	SPL
Injection temp.	:	240 ˚C
Injection mode	:	Split
Split ratio	:	1:10
Carrier gas	:	He
Carrier gas control	:	Constant linear velocity (45 cm/s)
Column	:	SH-1 (60m x 0.32 mm I.D., 5.0 µm) P/N : 221-75728-60
Column oven temp.	:	40 ˚C (2 min) - 20 ˚C /min - 150 ˚C- 40 ˚C /min - 200 ˚C - 25 ˚C /min - 220 ˚C (10 min)
Purge flow	:	3 mL/min

MS		
Ion source temp.	:	200 ˚C
Interface temp.	:	200 ˚C
Ionization method	:	EI
Measurement mode	:	SIM
Event time	:	0.3 s
Monitor ion (*m/z*)	:	30, 29 (2.00 min - 4.33 min) 46, 45 (4.33 min - 8.00 min)

Source : Application News M296 (JP, ENG)

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