

Supplementary data

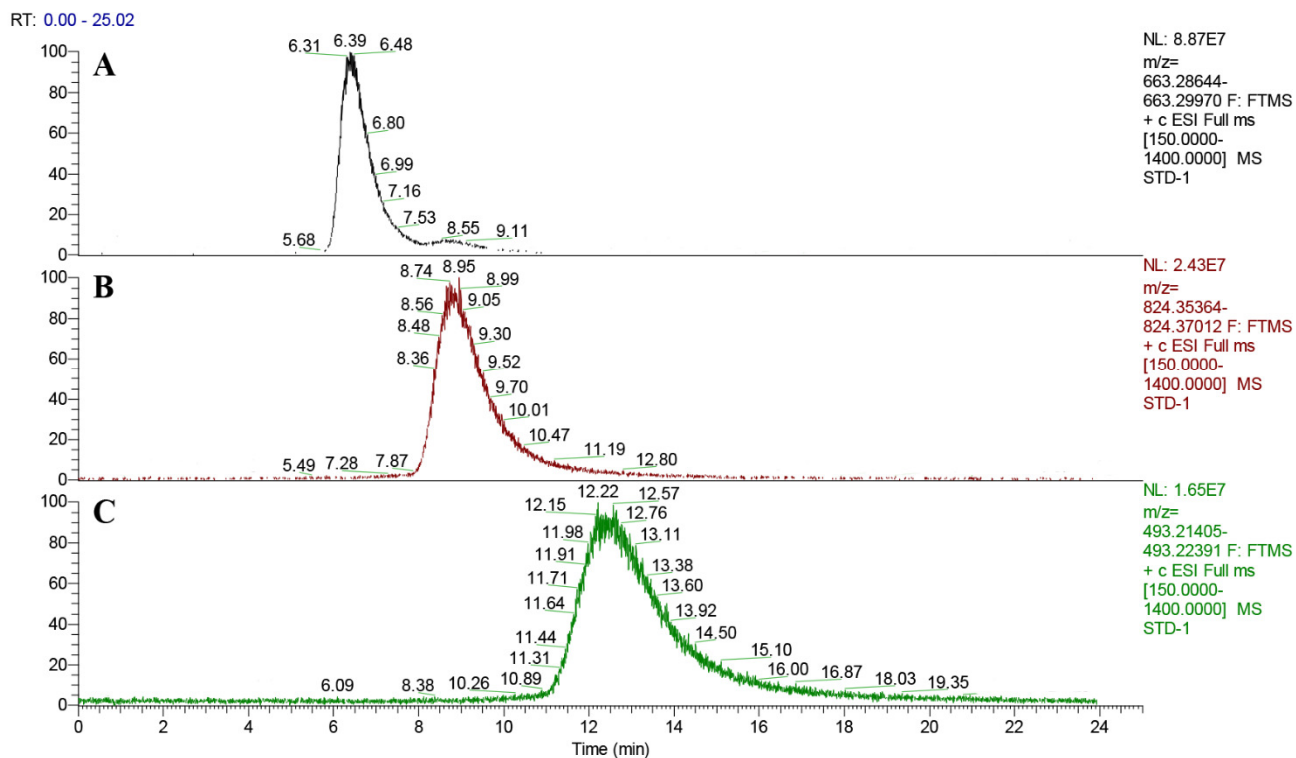


Figure S1 0.0875mg/mL COS4 (A), 0.04375 mg/mL COS5 (B), 0.05625 mg/mL COS6 (C)
chromatograms of standard products

RT: 0.00 - 25.02

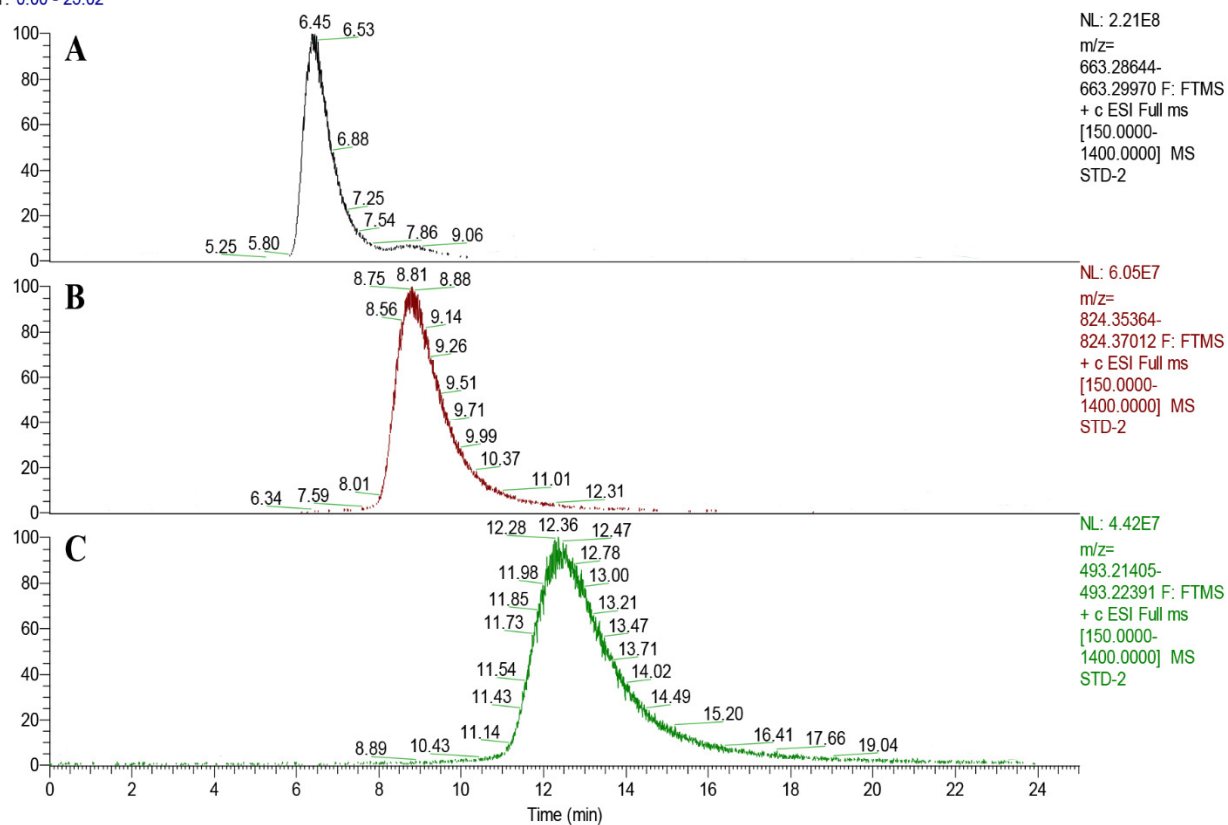


Figure S2 0.175mg/mL COS4 (A), 0.0875mg/mL COS5 (B), 0.1125mg/mL COS6 (C)
chromatograms of standard products

RT: 0.00 - 25.02

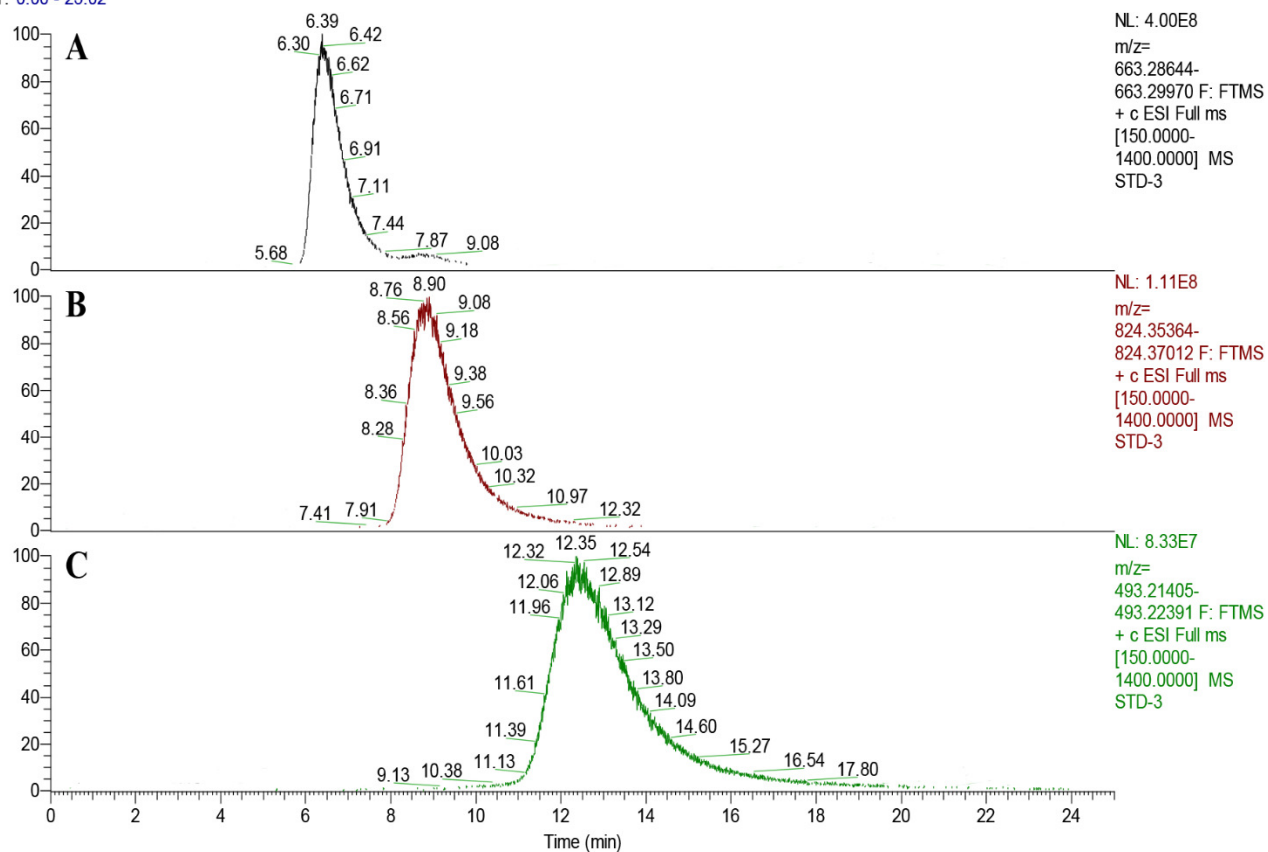


Figure S3 0.350mg/mL COS4 (A), 0.175mg/mL COS5 (B), 0.225mg/mL COS6 (C)
chromatograms of standard products

RT: 0.00 - 25.01

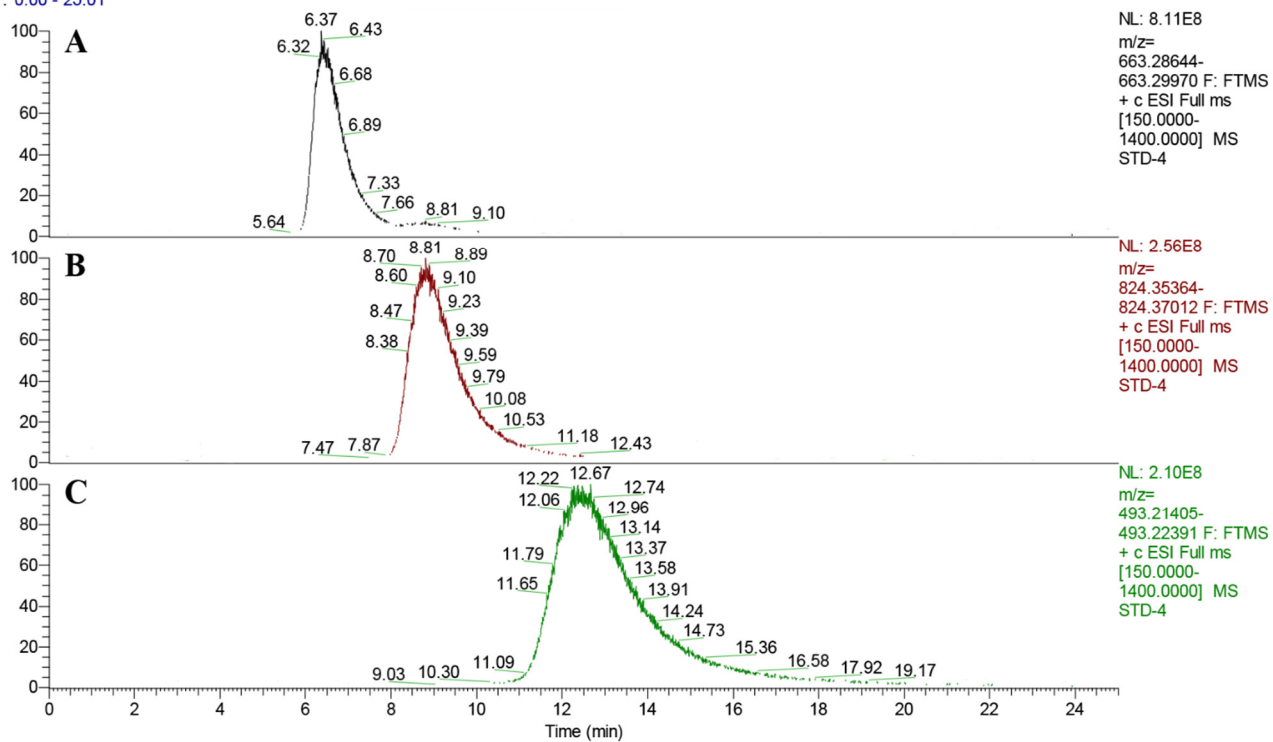


Figure S4 0.700mg/mL COS4 (A), 0.350mg/mL COS5 (B), 0.450mg/mL COS6 (C)
chromatograms of standard products

RT: 0.00 - 25.01

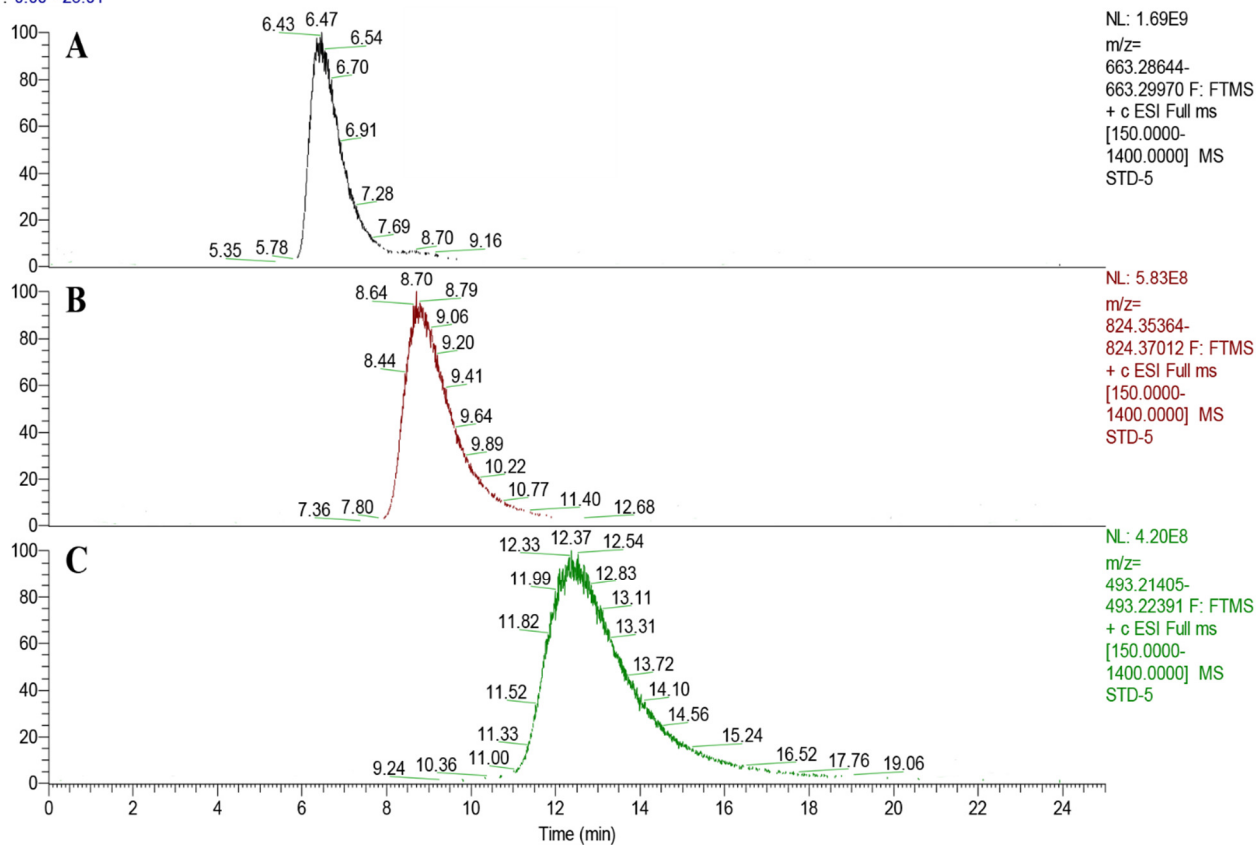


Figure S5 1.400mg/mL COS4 (A), 0.700mg/mL COS5 (B), 0.900mg/mL COS6 (C)
chromatograms of standard products

RT: 0.00 - 25.02

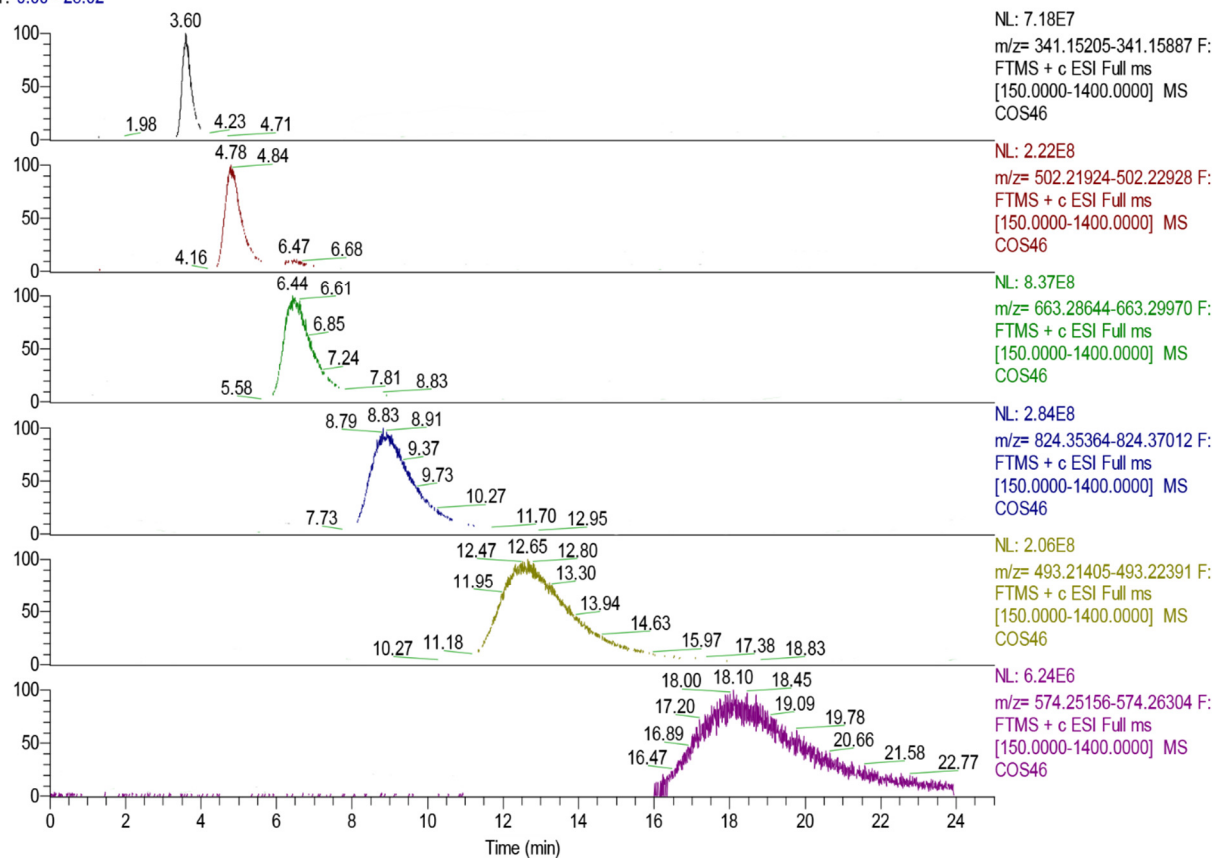


Figure S6 Liquid phase diagram of 1.820mg/mL COS46

RT: 0.00 - 25.01

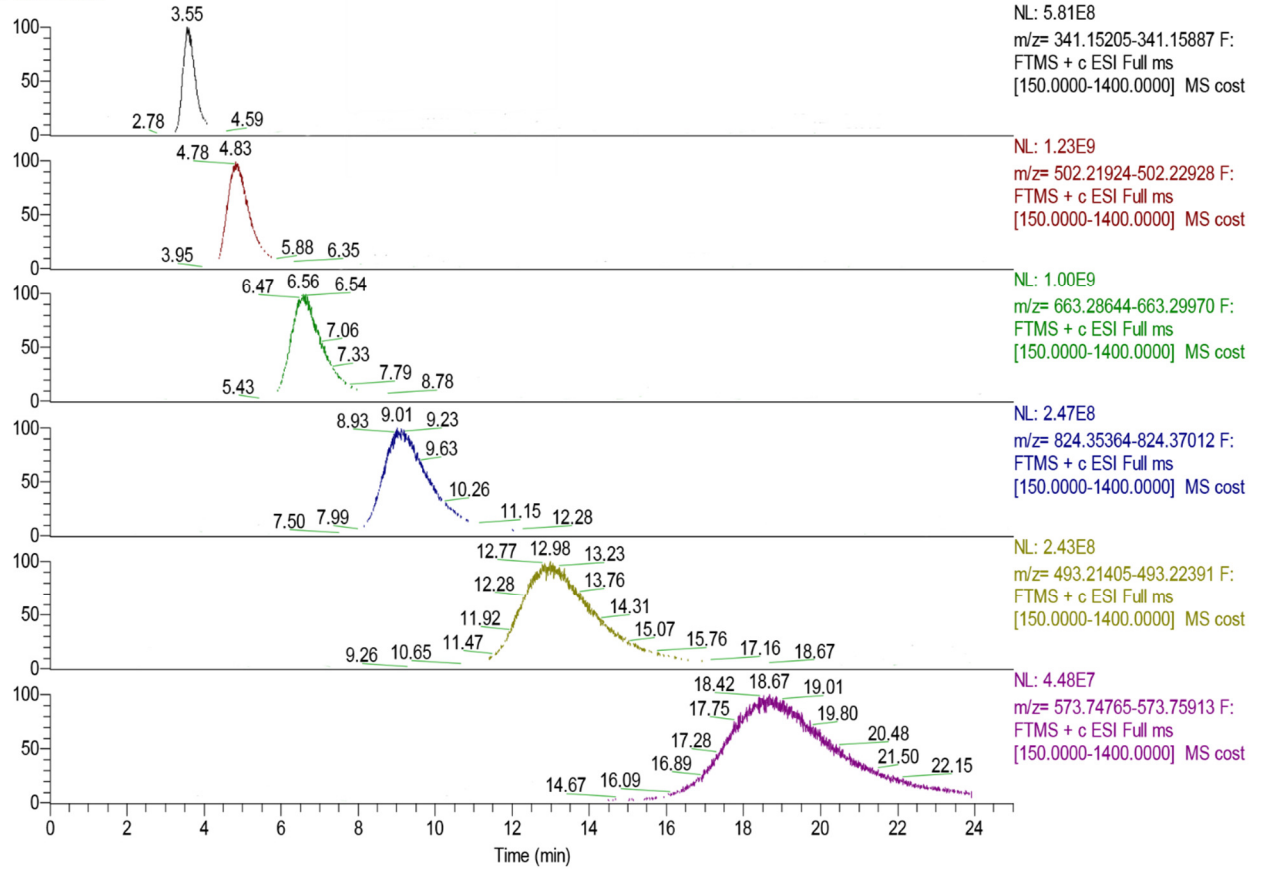


Figure S7 Liquid phase diagram of 3.440mg/mL COST

Table S1 Standard curves of retention time (RT) and concentrations of COS4, COS5 and COS6.

	Concentration (mg/mL)	Apex RT	Start RT	End RT	Area	Standard curve
COS4	0.0875	6.39	5.72	8.08	433	y=6475.3x-228.46 R ² =0.9955
	0.175	6.45	5.76	8.12	1096	
	0.35	6.39	5.68	8.08	1935	
	0.7	6.37	5.69	8.15	3946	
	1.4	6.47	5.65	8.33	9012	
COS5	0.04375	8.95	7.62	12.22	192	y=6398.6x-132.42 R ² =0.9987
	0.0875	8.81	7.65	11.91	479	
	0.175	8.90	7.65	12.39	907	
	0.35	8.81	7.69	11.87	2054	
	0.7	8.70	7.67	11.93	4384	
COS6	0.05625	12.22	10.39	17.85	222	y=5917.8x-118.04 R ² =0.9938
	0.1125	12.36	10.75	17.24	567	
	0.225	12.35	10.32	17.90	1020	
	0.45	12.67	10.62	18.36	2788	
	0.9	12.37	10.68	17.32	5132	

Table S2 Liquid phase data of COS46 and COST target components

	C/(mg/mL)	Apex RT	Start RT	End RT	Area
COS46	1.82	6.44	5.67	8.24	45242102751
		8.83	7.57	12.23	23397975217
		12.65	10.32	18.33	27828611707
COST	3.44	6.56	5.21	8.58	61663275573.503
		9.01	7.08	13.00	22671467620.854
		12.98	9.92	19.64	35211985606.695

COS46 #691 RT: 3.60 AV: 1 NL: 2.24E8
T: FTMS + c ESI Full ms [150.0000-1400.0000]
305.09952
z=1

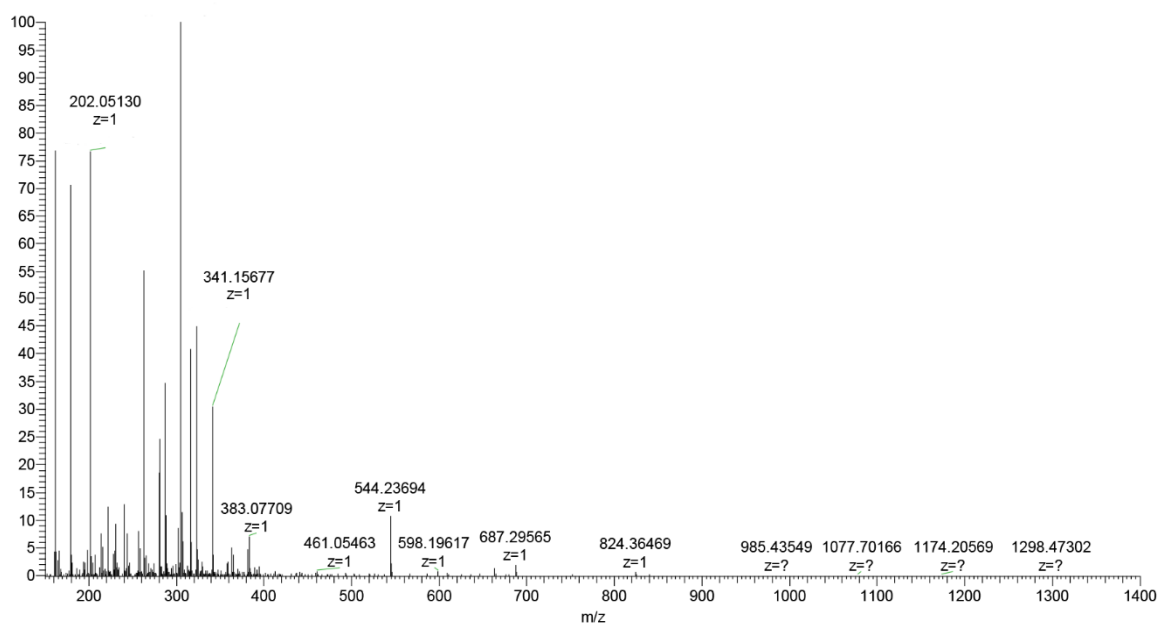


Figure S8 Mass spectrum of COS46 when RT=3.60min

COS46 #917 RT: 4.78 AV: 1 NL: 2.09E8
T: FTMS + c ESI Full ms [150.0000-1400.0000]

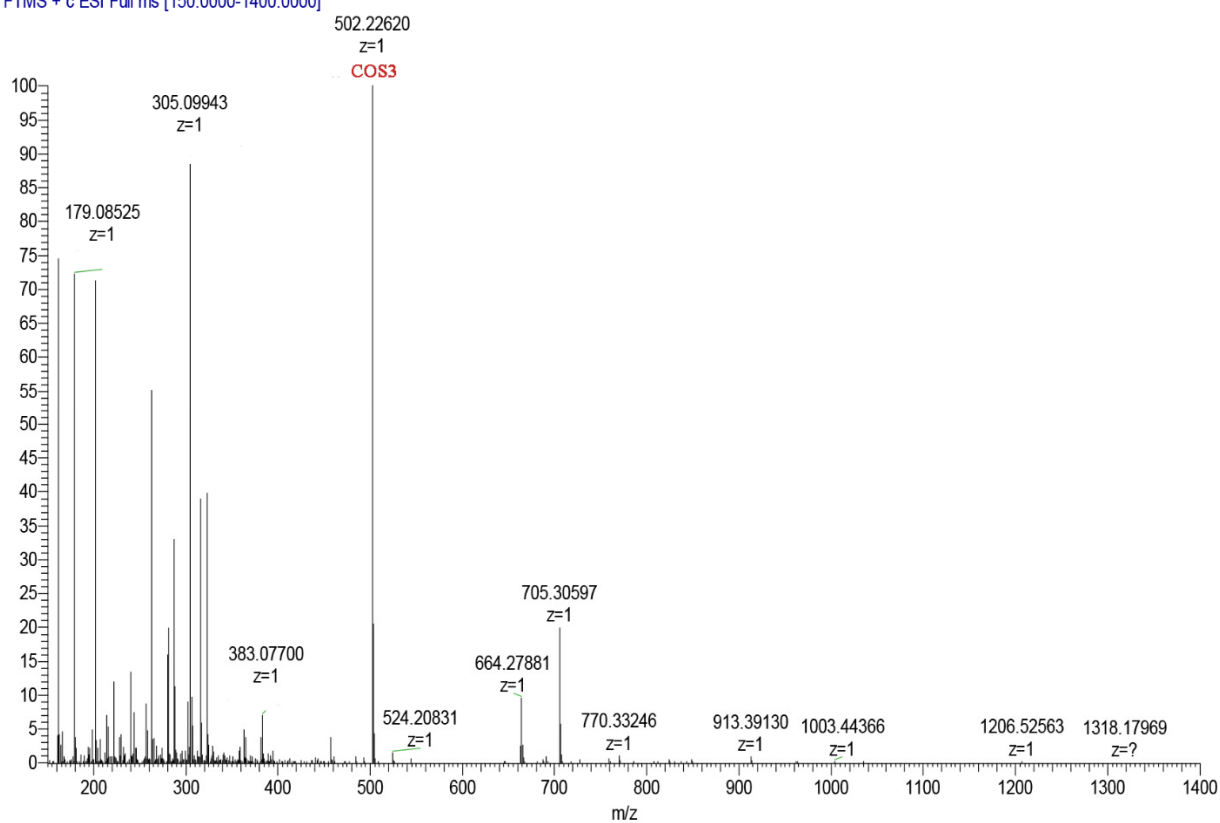


Figure S9 Mass spectrum of COS46 when RT=4.78min

COS46 #1235 RT: 6.44 AV: 1 NL: 8.37E8
T: FTMS + c ESI Full ms [150.0000-1400.0000]

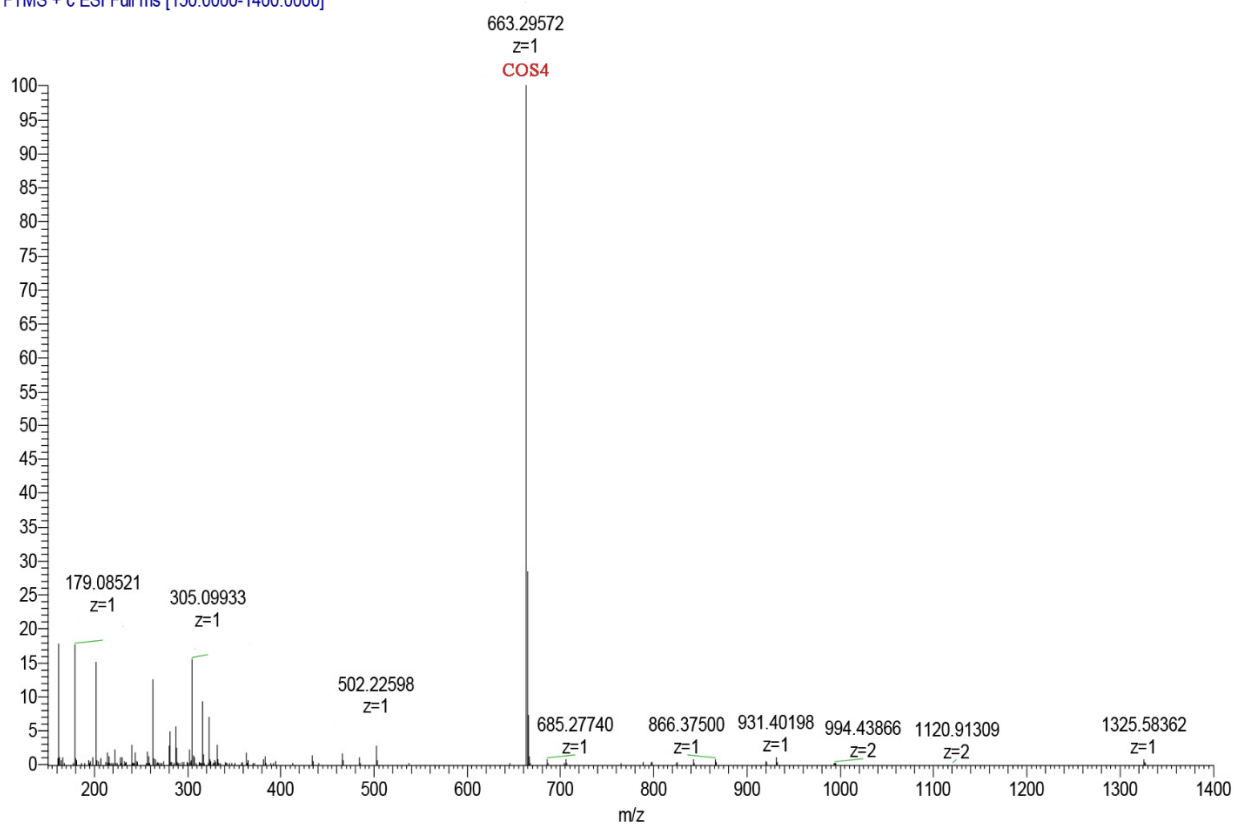


Figure S10 Mass spectrum of COS46 when RT=6.44min

COS46 #1695 RT: 8.83 AV: 1 NL: 2.84E8
T: FTMS + c ESI Full ms [150.0000-1400.0000]

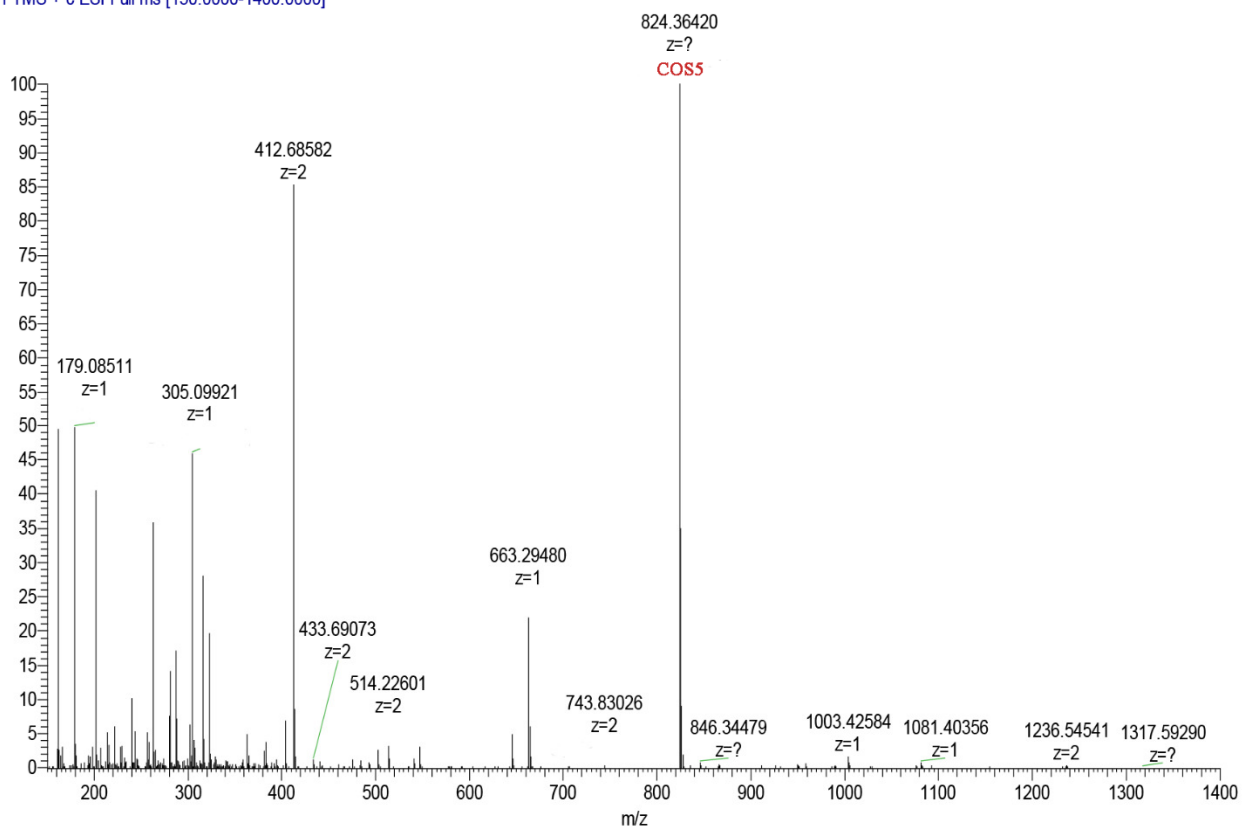


Figure S11 Mass spectrum of COS46 when RT=8.83min

COS46 #2427 RT: 12.65 AV: 1 NL: 1.86E8
T: FTMS + c ESI Full ms [150.0000-1400.0000]

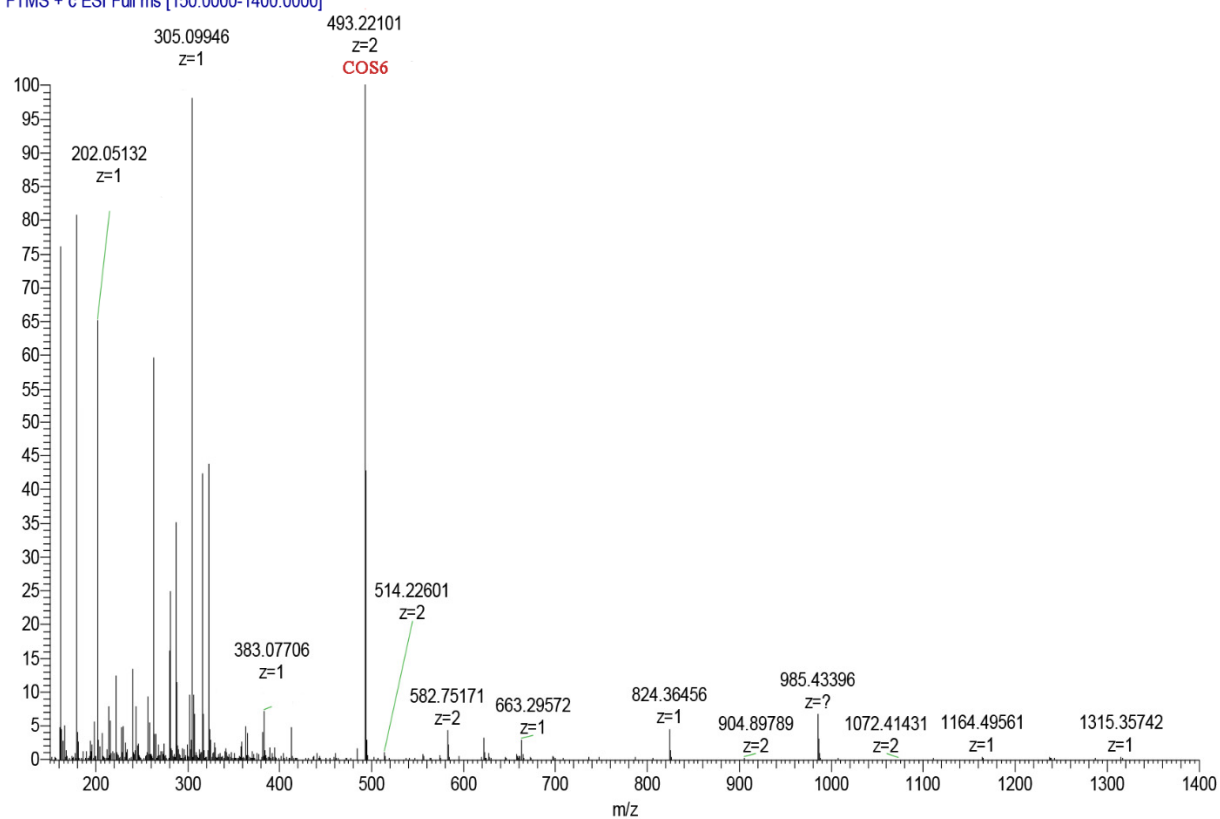


Figure S12 Mass spectrum of COS46 when RT=12.65min

COS46 #3474 RT: 18.10 AV: 1 SB: 704 20.32-24.02 NL: 7.95E6
T: FTMS + c ESI Full ms [150.0000-1400.0000]

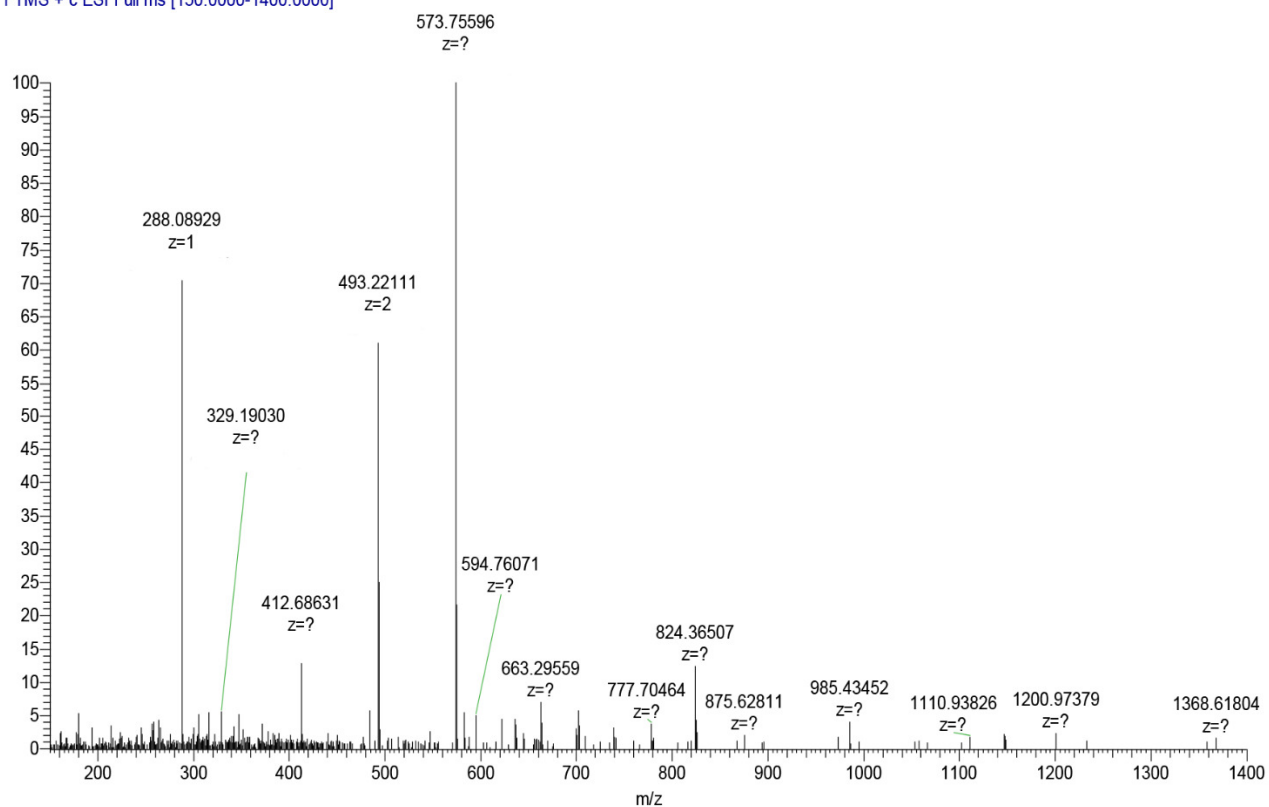


Figure S13 Mass spectrum of COS46 when RT=18.10min

cost #685 RT: 3.55 AV: 1 NL: 5.81E8
T: FTMS + c ESI Full ms [150.0000-1400.0000]

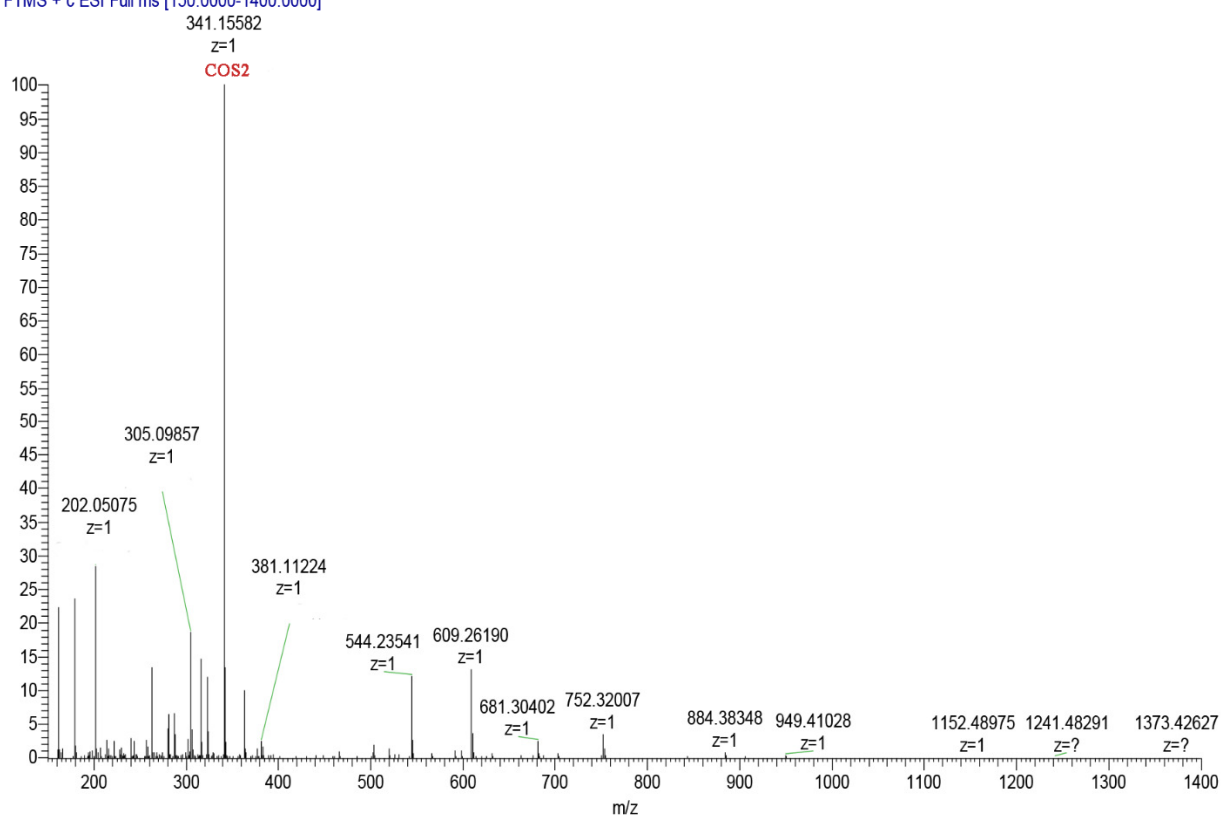


Figure S14 Mass spectrum of COST when RT=3.55min

cost #930 RT: 4.83 AV: 1 NL: 1.23E9
T: FTMS + c ESI Full ms [150.0000-1400.0000]

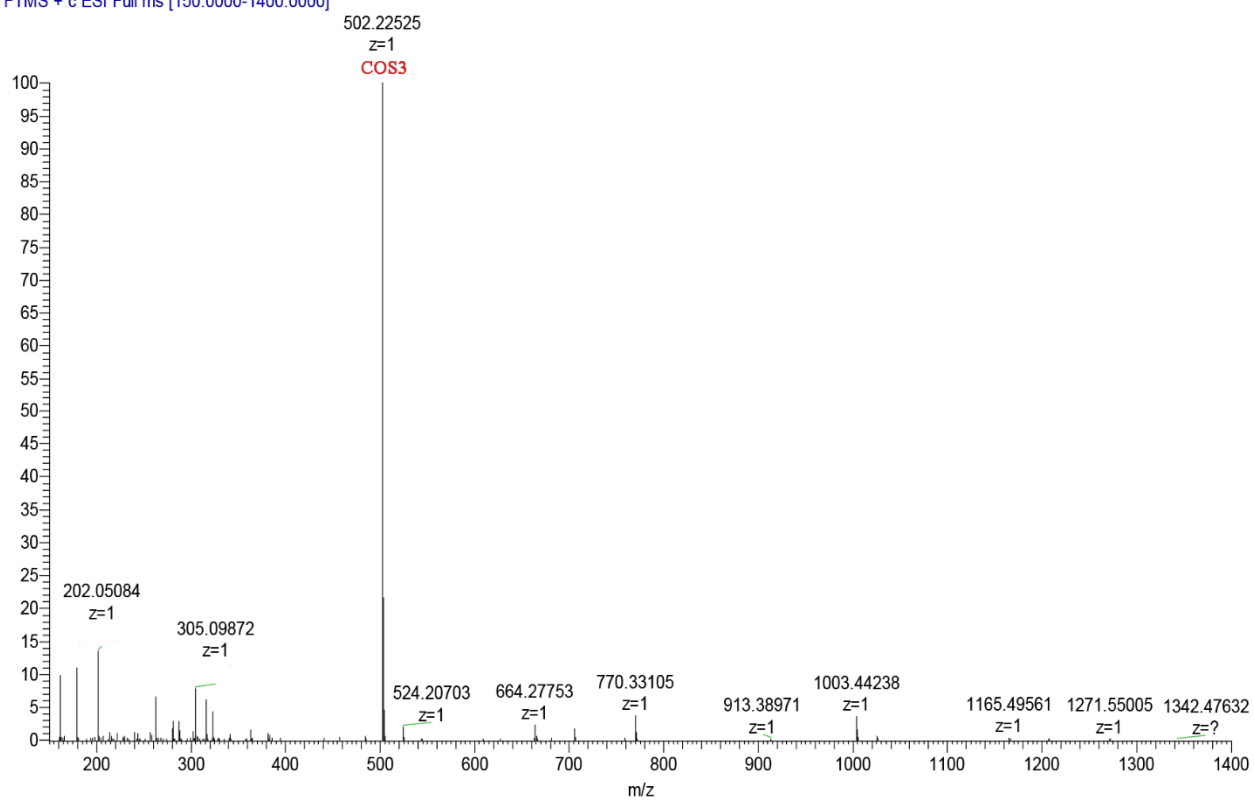


Figure S15 Mass spectrum of COST when RT=4.83min

cost #1264 RT: 6.56 AV: 1 NL: 1.00E9
T: FTMS + c ESI Full ms [150.0000-1400.0000]

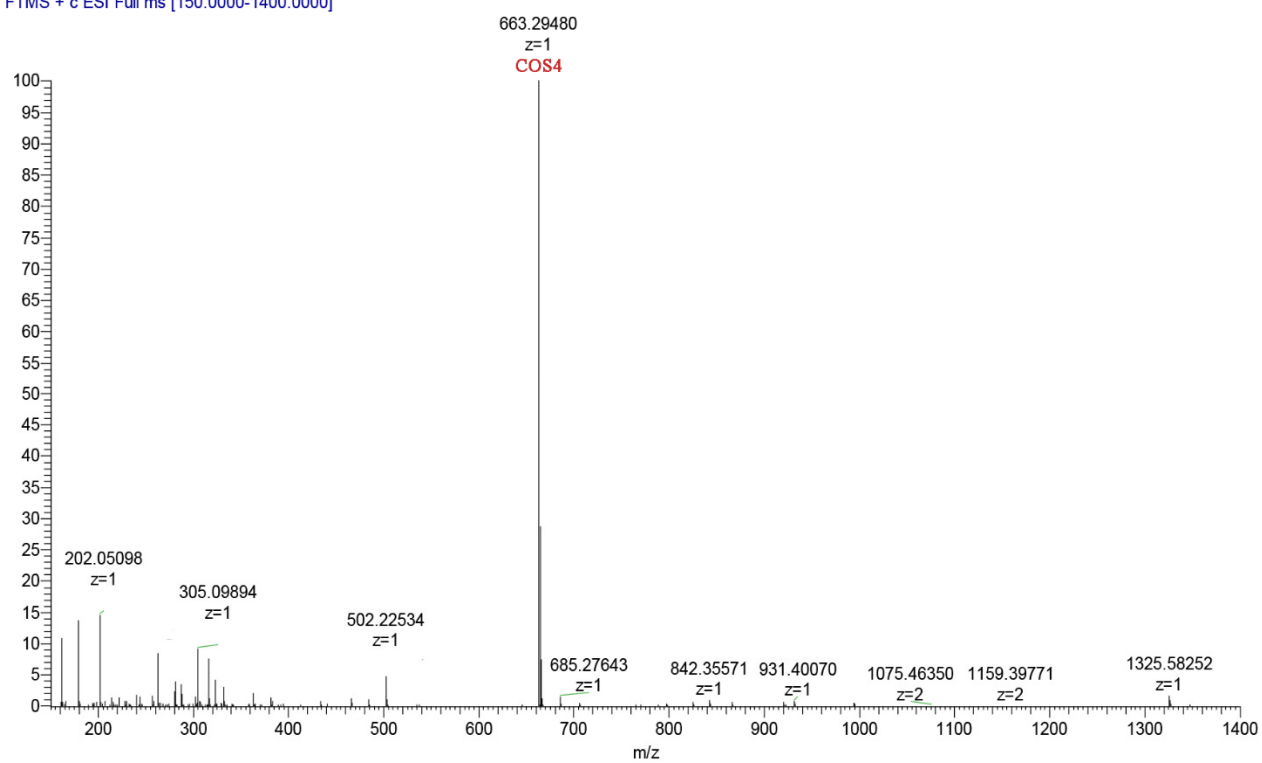


Figure S16 Mass spectrum of COST when RT=6.56min

cost #1734 RT: 9.01 AV: 1 NL: 2.30E8
T: FTMS + c ESI Full ms [150.0000-1400.0000]

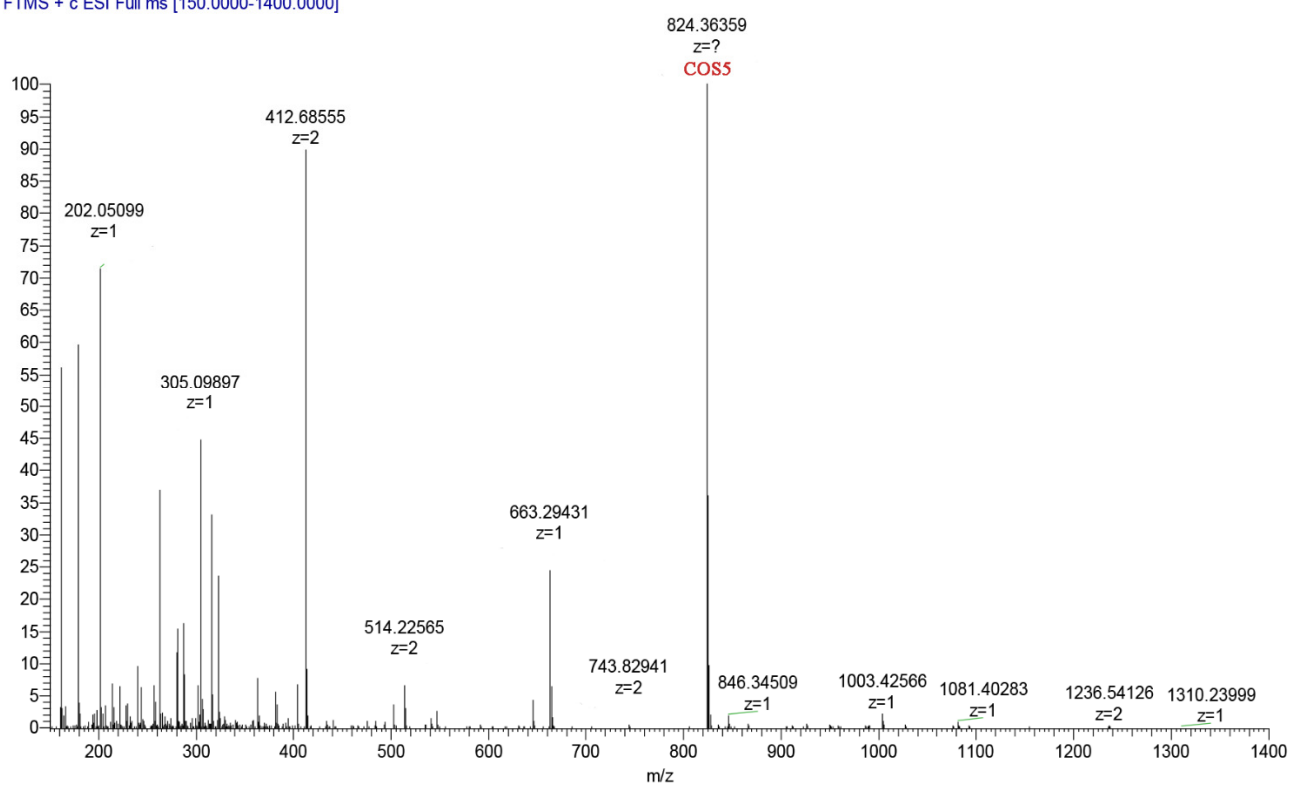


Figure S17 Mass spectrum of COST when RT=9.01min

cost #2495 RT: 12.98 AV: 1 NL: 2.32E8
T: FTMS + c ESI Full ms [150.0000-1400.0000]

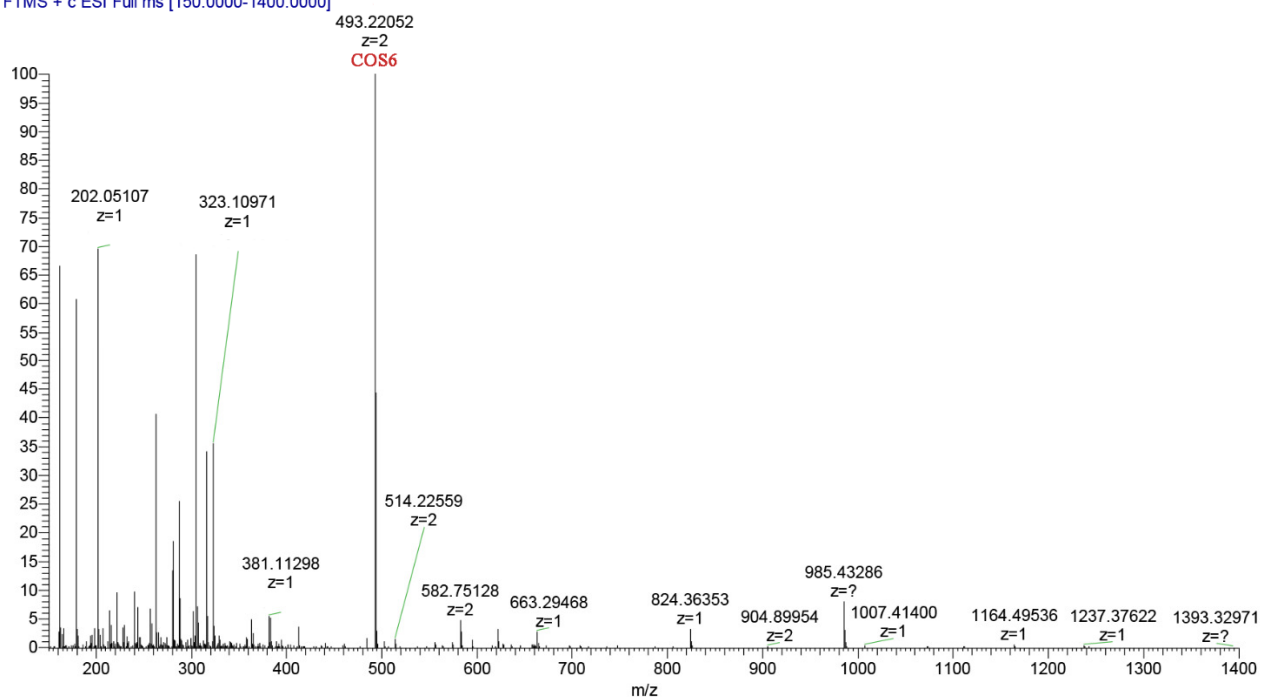


Figure S18 Mass spectrum of COST when RT=12.98min

COST #3587 RT: 18.67 AV: 1 SB: 1212 17.58-23.90 NL: 2.39E7
T: FTMS + c ESI Full ms [150.0000-1400.0000]

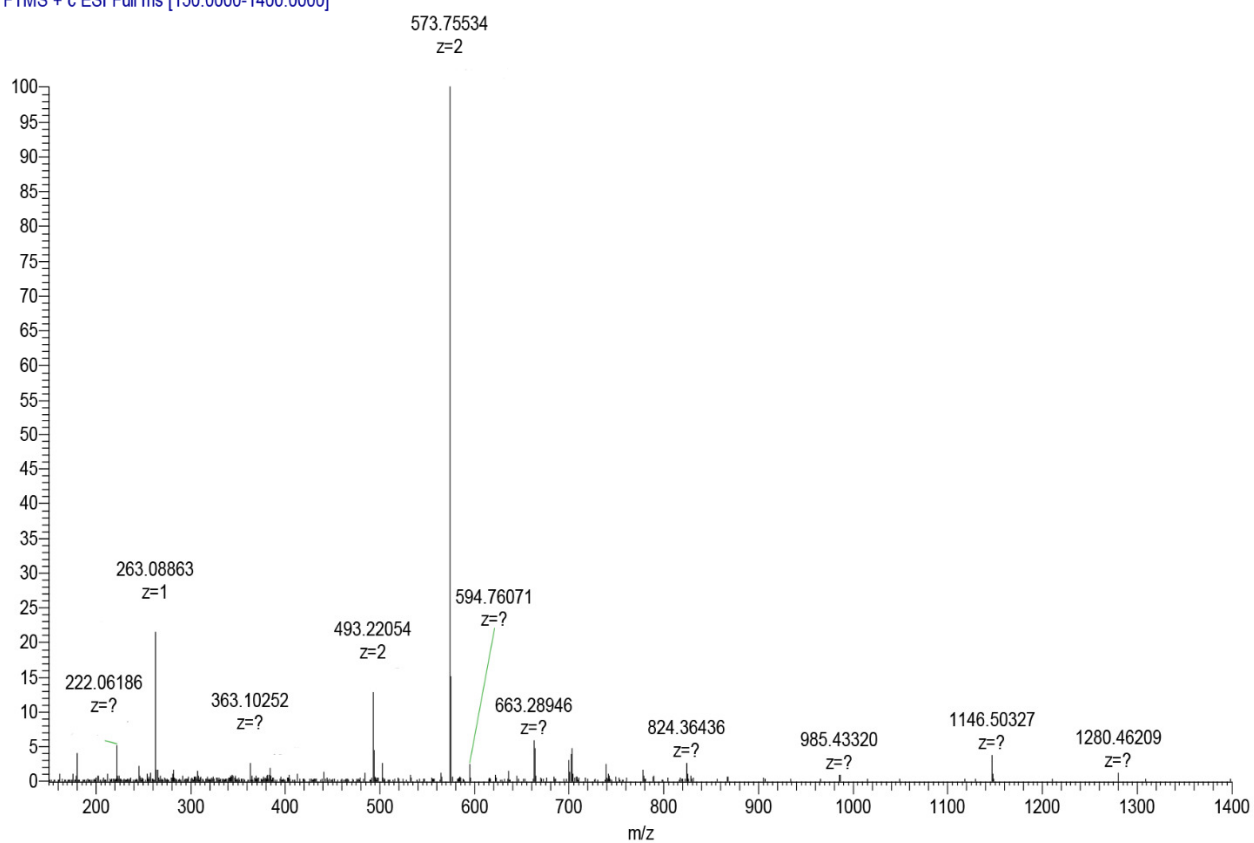


Figure S19 Mass spectrum of COST when RT=18.67min

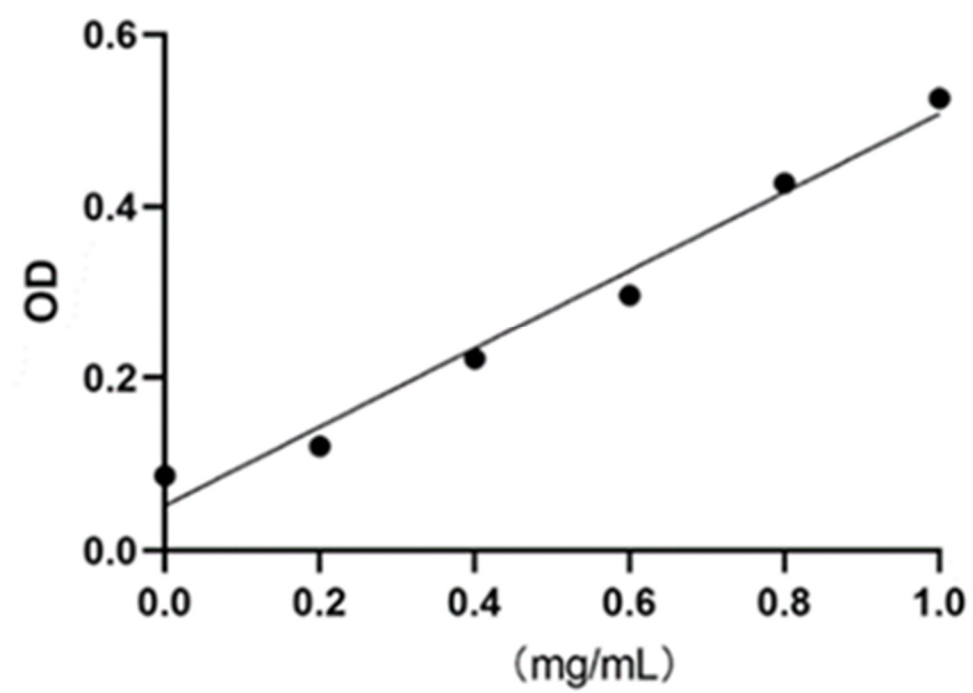


Figure S20 Standard curve of photometric method