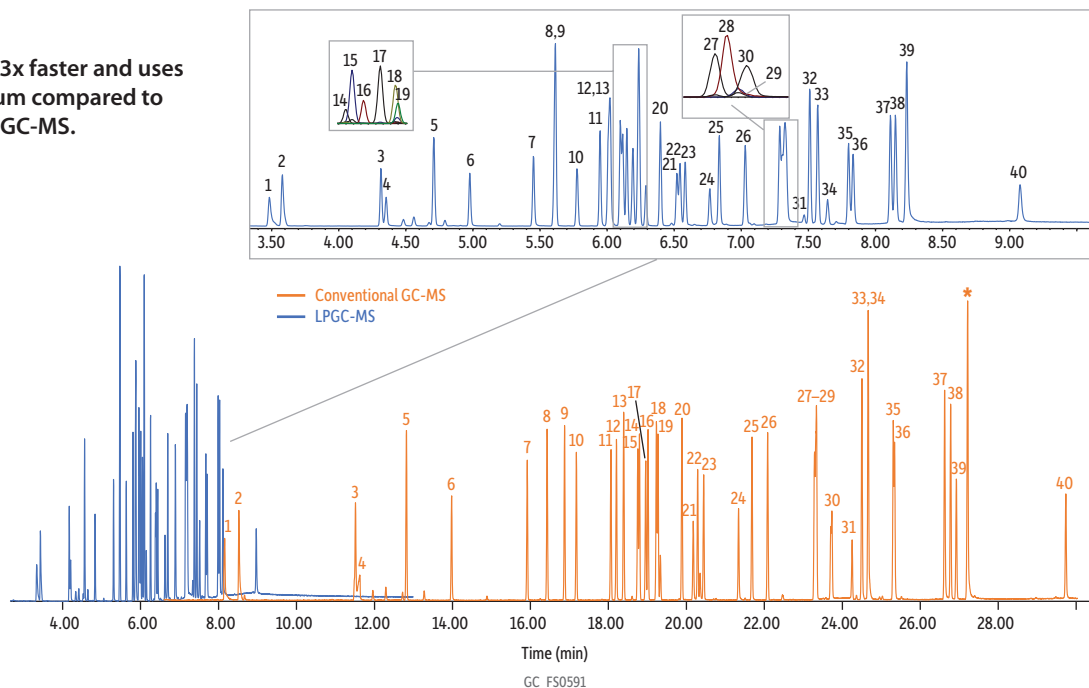


Comparison of Conventional and LPGC-MS Analysis of QuEChERS Performance Standards

LPGC-MS is 3.3x faster and uses 76% less helium compared to conventional GC-MS.



Peaks	tr (30 m)	tr (LPGC)	Conc (ppm)	Column	See notes
1. Methamidophos	8.16	3.488	6	Standard/Sample	QuEChERS performance standards kit (cat.# 31152)
2. Dichlorvos	8.52	3.582	6	Diluent:	Acetonitrile
3. Mevinphos	11.51	4.317	6	Conc.:	6 µg/mL
4. Acephate	11.62	4.356	6	Injection	
5. o-Phenylphenol	12.82	4.711	6	Inj. Vol.:	1 µL splitless (hold 0.5 min)
6. Omethoate	13.98	4.979	6	Liner:	Topaz, single taper inlet liner, 4.0 mm x 6.5 x 78.5 (cat.# 23303)
7. Dimethoate	15.92	5.453	6	Inj. Temp.:	250 °C
8. gamma-BHC	16.43	5.615	6	Carrier Gas	He
9. Diazinon	16.88	5.615	6	Detector	MS
10. Chlorothalonil	17.18	5.778	6	Mode:	Scan
11. Vinclozolin	18.07	5.95	6	Transfer Line Temp.:	280 °C
12. Carbaryl	18.21	6.023	6	Analyzer Type:	Quadrupole
13. Metalaxyl	18.39	6.023	6	Source Temp.:	230 °C
14. Pirimiphos methyl	18.80	6.101	6	Quad Temp.:	150 °C
15. Methiocarb	18.76	6.118	6	Electron Energy:	70 eV
16. Malathion	19.02	6.149	6	Tune Type:	PFTBA
17. Dichlofluanid	18.96	6.194	6	Ionization Mode:	El
18. Fenthion	19.23	6.238	6	Instrument	Agilent 7890A GC & 5975C MSD
19. Chlorpyrifos	19.27	6.238	6	Sample Preparation	The standards were combined and diluted with acetonitrile to 6 ppm; analyzed in a 2 mL, short-cap, screw-thread vial (cat.# 21143); and capped with a short-cap, screw-vial closure (cat.# 24495).
20. Cyprodinil	19.89	6.4	6	Notes	Conventional (30 m) Analysis: Column: Rtx-5ms, 30 m, 0.25 mm ID, 0.25 µm (cat.# 12623) Temp. program: 70 °C (hold 1 min) to 330 °C at 8 °C/min (hold 6.5 min) Flow: 1.4 mL/min Scan start time: 6.5 min Scan range: 45-550 amu Scan rate: 5.5 scans/sec
21. Thiabendazole	20.18	6.522	6		
22. Captan	20.29	6.545	6		
23. Folpet	20.44	6.584	6		
24. Imazalil	21.34	6.767	6		
25. Myclobutanil	21.68	6.838	6		
26. Endrin	22.09	7.033	6		
27. 4,4'-DDT	23.34	7.29	6		
28. Fenhexamid	23.34	7.317	6		
29. Endosulfan sulfate	23.29	7.317	6		
30. Propargite	23.73	7.328	6		
31. Iprodione	24.25	7.469	6		
32. Bifenthrin	24.50	7.511	6		
33. Fenpropathrin	24.67	7.572	6		
34. Dicofof	25.31	7.647	6		
35. Phosalone	25.34	7.802	6		
36. Azinphos-methyl	26.63	7.837	6		
37. cis-Permethrin	26.78	8.114	6		
38. trans-Permethrin	26.93	8.152	6		
39. Coumaphos	27.22	8.235	6		
40. Deltamethrin	29.74	9.081	6		

* Contaminant