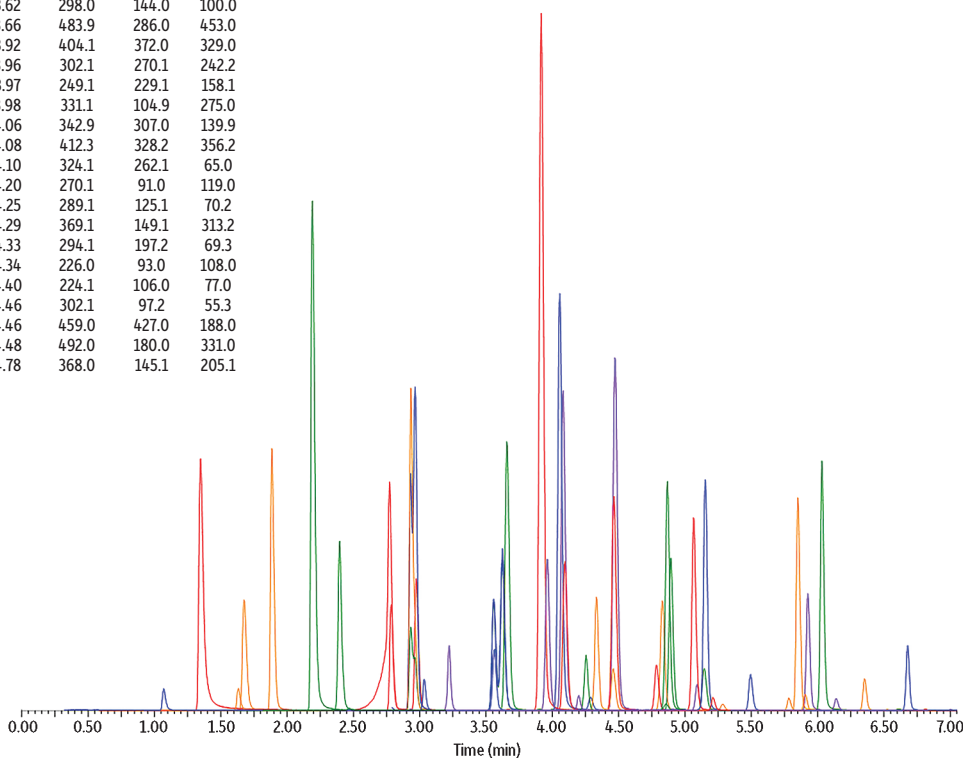


# LC Multi-Residue Pesticide Standard #4 on Raptor™ ARC-18 by LC-MS/MS

| Peaks                    | tR (min) | Precursor Ion | Product Ion 1 | Product Ion 2 | Peaks                   | tR (min) | Precursor Ion | Product Ion 1 | Product Ion 2 | Peaks                  | tR (min) | Precursor Ion | Product Ion 1 | Product Ion 2 |
|--------------------------|----------|---------------|---------------|---------------|-------------------------|----------|---------------|---------------|---------------|------------------------|----------|---------------|---------------|---------------|
| 1. Cyromazine            | 1.07     | 167.0         | 85.0          | 108.1         | 39. Rotenone            | 4.83     | 395.0         | 213.1         | 192.1         | 55. Piperonyl butoxide | 5.93     | 356.3         | 176.9         | 119.0         |
| 2. Pymetrozine           | 1.35     | 218.0         | 105.0         | 79.0          | 40. Tebufenozide        | 4.86     | 353.1         | 133.0         | 297.1         | 56. Quinoxifen         | 6.03     | 308.0         | 197.0         | 161.9         |
| 3. Dinotefuran           | 1.63     | 203.0         | 129.0         | 157.0         | 41. Dimoxystrobin       | 4.87     | 327.1         | 116.1         | 205.2         | 57. Amitraz            | 6.14     | 294.0         | 163.0         | 122.0         |
| 4. Nitenpyram            | 1.68     | 271.1         | 125.9         | 224.9         | 42. Carfentrazone ethyl | 4.89     | 412.0         | 346.0         | 266.0         | 58. Fenpyroximate      | 6.36     | 422.2         | 138.1         | 366.1         |
| 5. Flonicamid            | 1.89     | 230.0         | 203.1         | 174.1         | 43. Kresoxim-methyl     | 4.90     | 314.1         | 206.0         | 116.0         | 59. Abamectin B1b      | 6.47     | 876.6         | 553.4         | 291.0         |
| 6. Imidacloprid          | 2.19     | 256.1         | 175.1         | 209.1         | 44. Zoxamide            | 5.06     | 336.0         | 187.1         | 159.0         | 60. Eprinomectin       | 6.53     | 914.6         | 186.0         | 154.0         |
| 7. Acetamiprid           | 2.40     | 223.0         | 126.0         | 56.1          | 45. Famoxadone          | 5.09     | 392.2         | 331.1         | 238.0         | 61. Abamectin B1a      | 6.61     | 890.5         | 305.2         | 567.3         |
| 8. Cymoxanil             | 2.47     | 199.0         | 128.0         | 111.0         | 46. Prochloraz          | 5.14     | 376.0         | 308.0         | 70.1          | 62. Fenazaquin         | 6.68     | 307.2         | 161.0         | 57.2          |
| 9. Oxadixyl              | 2.77     | 279.0         | 219.0         | 132.0         | 47. Benalaxyl           | 5.15     | 326.1         | 148.0         | 91.0          | 63. Doramectin         | 6.81     | 916.6         | 331.2         | 593.4         |
| 10. Carbetamide          | 2.79     | 237.0         | 118.0         | 192.0         | 48. Clofentezine        | 5.21     | 303.0         | 138.0         | 102.0         | 64. Moxidectin         | 6.81     | 640.5         | 498.3         | 528.4         |
| 11. Secbumeton           | 2.93     | 226.2         | 100.2         | 170.2         | 49. Benzoximate         | 5.28     | 364.0         | 199.1         | 105.0         | 65. Ivermectin         | 7.00     | 892.6         | 569.4         | 551.4         |
| 12. Prometon             | 2.93     | 226.0         | 86.3          | 184.3         | 50. Trifloxystrobin     | 5.50     | 409.0         | 186.0         | 145.0         |                        |          |               |               |               |
| 13. Terbumeton           | 2.97     | 226.1         | 114.1         | 170.1         | 51. Fluazinam           | 5.77     | 464.8         | 373.0         | 338.1         |                        |          |               |               |               |
| 14. Imazalil             | 2.97     | 297.0         | 159.0         | 69.0          | 52. Metaflumizone       | 5.79     | 507.0         | 287.2         | 267.1         |                        |          |               |               |               |
| 15. Pyracarbolid         | 3.04     | 218.1         | 125.1         | 97.1          | 53. Tebufenpyrad        | 5.85     | 334.0         | 117.0         | 145.0         |                        |          |               |               |               |
| 16. Ametryn              | 3.22     | 228.1         | 68.1          | 186.1         | 54. Pyriproxifen        | 5.91     | 322.1         | 96.0          | 227.1         |                        |          |               |               |               |
| 17. Pyrimethanil         | 3.51     | 200.0         | 107.0         | 82.0          |                         |          |               |               |               |                        |          |               |               |               |
| 18. Spiroxamine isomer 1 | 3.56     | 298.0         | 144.0         | 100.0         |                         |          |               |               |               |                        |          |               |               |               |
| 19. Metalaxyl            | 3.56     | 280.1         | 220.1         | 192.1         |                         |          |               |               |               |                        |          |               |               |               |
| 20. Spiroxamine isomer 2 | 3.62     | 298.0         | 144.0         | 100.0         |                         |          |               |               |               |                        |          |               |               |               |
| 21. Chlorantranilprole   | 3.66     | 483.9         | 286.0         | 453.0         |                         |          |               |               |               |                        |          |               |               |               |
| 22. Azoxystrobin         | 3.92     | 404.1         | 372.0         | 329.0         |                         |          |               |               |               |                        |          |               |               |               |
| 23. Furalaxyl            | 3.96     | 302.1         | 270.1         | 242.2         |                         |          |               |               |               |                        |          |               |               |               |
| 24. Fludioxonil          | 3.97     | 249.1         | 229.1         | 158.1         |                         |          |               |               |               |                        |          |               |               |               |
| 25. Halofenozide         | 3.98     | 331.1         | 104.9         | 275.0         |                         |          |               |               |               |                        |          |               |               |               |
| 26. Boscalid             | 4.06     | 342.9         | 307.0         | 139.9         |                         |          |               |               |               |                        |          |               |               |               |
| 27. Mandipropamid        | 4.08     | 412.3         | 328.2         | 356.2         |                         |          |               |               |               |                        |          |               |               |               |
| 28. Flutolanil           | 4.10     | 324.1         | 262.1         | 65.0          |                         |          |               |               |               |                        |          |               |               |               |
| 29. Mepronil             | 4.20     | 270.1         | 91.0          | 119.0         |                         |          |               |               |               |                        |          |               |               |               |
| 30. Myclobutanil         | 4.25     | 289.1         | 125.1         | 70.2          |                         |          |               |               |               |                        |          |               |               |               |
| 31. Methoxyfenozide      | 4.29     | 369.1         | 149.1         | 313.2         |                         |          |               |               |               |                        |          |               |               |               |
| 32. Triadimefon          | 4.33     | 294.1         | 197.2         | 69.3          |                         |          |               |               |               |                        |          |               |               |               |
| 33. Cyprodinil           | 4.34     | 226.0         | 93.0          | 108.0         |                         |          |               |               |               |                        |          |               |               |               |
| 34. Mepanipyrim          | 4.40     | 224.1         | 106.0         | 77.0          |                         |          |               |               |               |                        |          |               |               |               |
| 35. Fenhexamid           | 4.46     | 302.1         | 97.2          | 55.3          |                         |          |               |               |               |                        |          |               |               |               |
| 36. Fluoxastrobin        | 4.46     | 459.0         | 427.0         | 188.0         |                         |          |               |               |               |                        |          |               |               |               |
| 37. Butafenacil          | 4.48     | 492.0         | 180.0         | 331.0         |                         |          |               |               |               |                        |          |               |               |               |
| 38. Picoxystrobin        | 4.78     | 368.0         | 145.1         | 205.1         |                         |          |               |               |               |                        |          |               |               |               |

Isomers are numbered sequentially based on elution order.



LC\_FF0546

**Column** Raptor™ ARC-18 (cat.# 9314A12)  
**Dimensions:** 100 mm x 2.1 mm ID  
**Particle Size:** 2.7 µm  
**Temp.:** 50 °C  
**Sample** LC multi-residue pesticide standard #4 (cat.# 31975)  
**Diluent:** Water  
**Conc.:** 20 ng/mL  
**Inj. Vol.:** 5 µL  
**Mobile Phase**  
**A:** Water + 2 mM ammonium formate + 0.2% formic acid  
**B:** Methanol + 2 mM ammonium formate + 0.2% formic acid

| Time (min) | Flow (mL/min) | %A | %B  |
|------------|---------------|----|-----|
| 0.00       | 0.4           | 95 | 5   |
| 2.00       | 0.4           | 40 | 60  |
| 4.00       | 0.4           | 25 | 75  |
| 6.00       | 0.4           | 0  | 100 |
| 7.00       | 0.4           | 0  | 100 |
| 7.01       | 0.4           | 95 | 5   |
| 9.50       | 0.4           | 95 | 5   |

**Detector** Waters Xevo TQ-S  
**Ion Source:** Waters Zspray™ ESI  
**Ion Mode:** ESI+  
**Mode:** MRM  
**Instrument** Waters  
**Notes** Autosampler Temp. = 5 °C