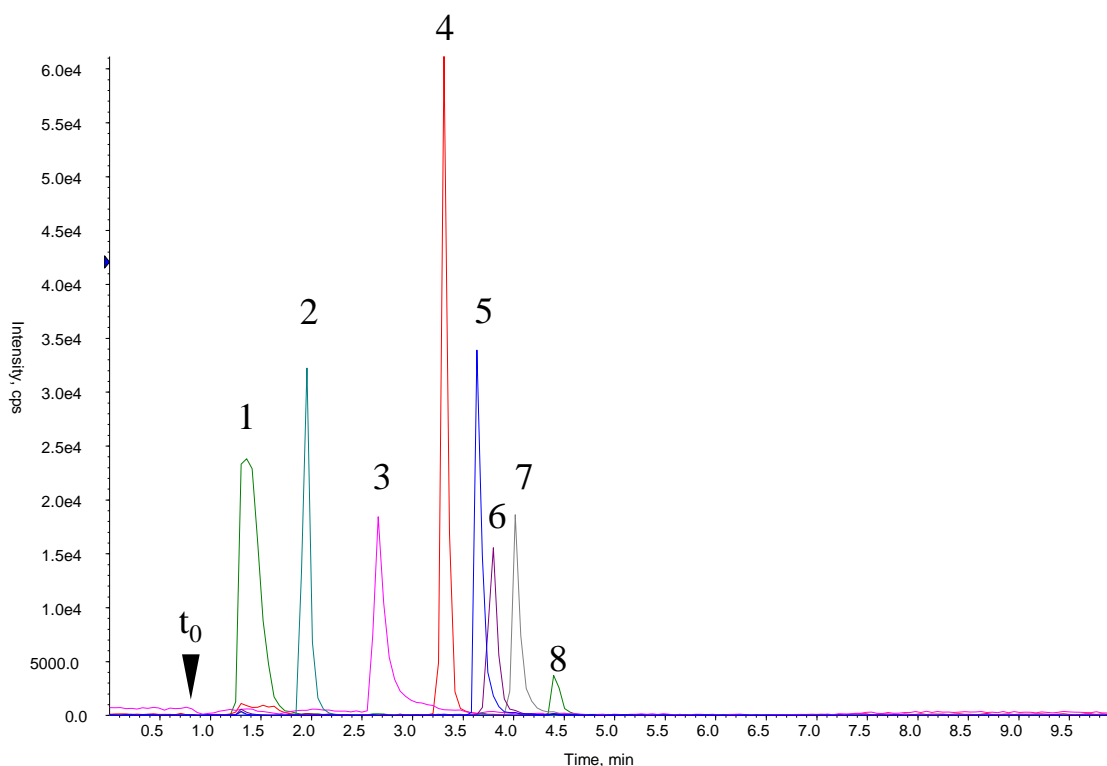


Analysis of Underivatized Glyphosate, Glufosinate and Other Polar Pesticides



Conditions

- System** : Nexera XR UHPLC system (Shimadzu)
4000 QTRAP (Sciex)
- Column** : InertSustain AX-C18 (GL Sciences Inc.)
(3 μ m, 150 x 2.1 mm I.D., Metal-free hardware)
- Column Cat. No.** : 5020-91059
- Eluent** : A) 100 mM $\text{CH}_3\text{COONH}_4$ in ($\text{CH}_3\text{CN}/\text{H}_2\text{O}=50/50$, v/v)
B) 0.5 % HCOOH in H_2O

| Time (min) | A% | B% |
|------------|----|----|
| 0.0 | 2 | 98 |
| 0.5 | 2 | 98 |
| 3.0 | 50 | 50 |
| 5.0 | 50 | 50 |
| 5.1 | 2 | 98 |
| 9.0 | 2 | 98 |

| No. | Analyte | Q1 | Q3 | Conc. ($\mu\text{g/L}$) |
|-----|---|-------|-------|---------------------------|
| 1 | (Aminomethyl) phosphonic acid (AMPA) | 109.9 | 64.5 | 100 |
| 2 | Glufosinate | 179.7 | 94.9 | 100 |
| 3 | Glyphosate | 167.8 | 149.5 | 100 |
| 4 | 3-(Methylphosphinico) propionic acid (MPPA) | 150.8 | 132.6 | 100 |
| 5 | N-Acetyl Glufosinate | 221.9 | 135.8 | 100 |
| 6 | N-Acetyl Glyphosate | 209.9 | 149.9 | 100 |
| 7 | Ethephon | 144.9 | 106.7 | 100 |
| 8 | Fosetyl | 108.9 | 64.5 | 500 |

- Flow rate** : 0.3 mL/min
- Col. Temp.** : 50 $^\circ\text{C}$
- Detection** : LC/MS/MS
(4000 QTRAP : ESI, Negative, SRM)
CUR CAD IS TEM GS1 GS2
25 12 -4500 600 80 80

- Injection Vol.** : 50 μ L
- Sample** : Standard