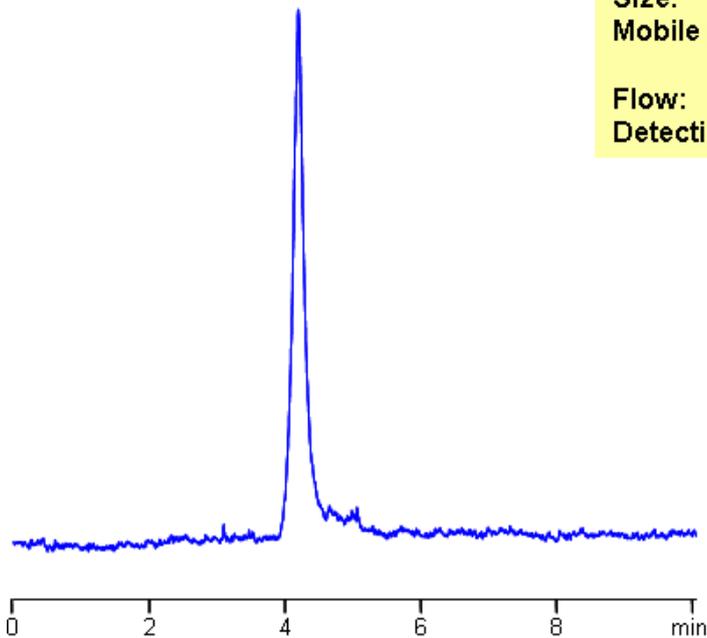


HPLC Analysis of Ethephon in Hydrogen-Bonding Mode

Column: SHARC 1
Size: 3.2 x 100 mm
Mobile phase: gradient MeCN/MeOH from 90/10 to 50/50 in 6 min, 30 mM Ammonia
Flow: 1.0 mL/min
Detection: ELSD



Ethephon is an important compound for the agricultural industry. It can be corrosive, but metabolizes to ethylene quickly in plants. Ethephon was retained on SHARC1HILIC/anion-exclusion column. Retention was controlled by adjusting methanol in mobile phase to suppress hydrogen bonding.

The SHARC™ family of innovative columns represents the first commercially available columns primarily utilizing separation based on hydrogen bonding. SHARC stands for Specific Hydrogen-bond Adsorption Resolution Column. Hydrogen bonding involves an interaction or attraction between a bound hydrogen atom and molecules containing electronegative atoms, such as oxygen, nitrogen, and fluorine.

Method Parameters

Column	Sharc 1, 3.2x100 mm, 5 µm, 100 Å
Mobile Phase	Gradient MeCN/MeOH – 90/10% to 50/50, 6 min
Buffer	Ammonia – 30 mM
Flow Rate	1.0 mL/min
Detection	ELSD

Quelle: https://sielc.com/HPLC_Analysis_of_Ethephon_in_Hydrogen-Bonding_Mode