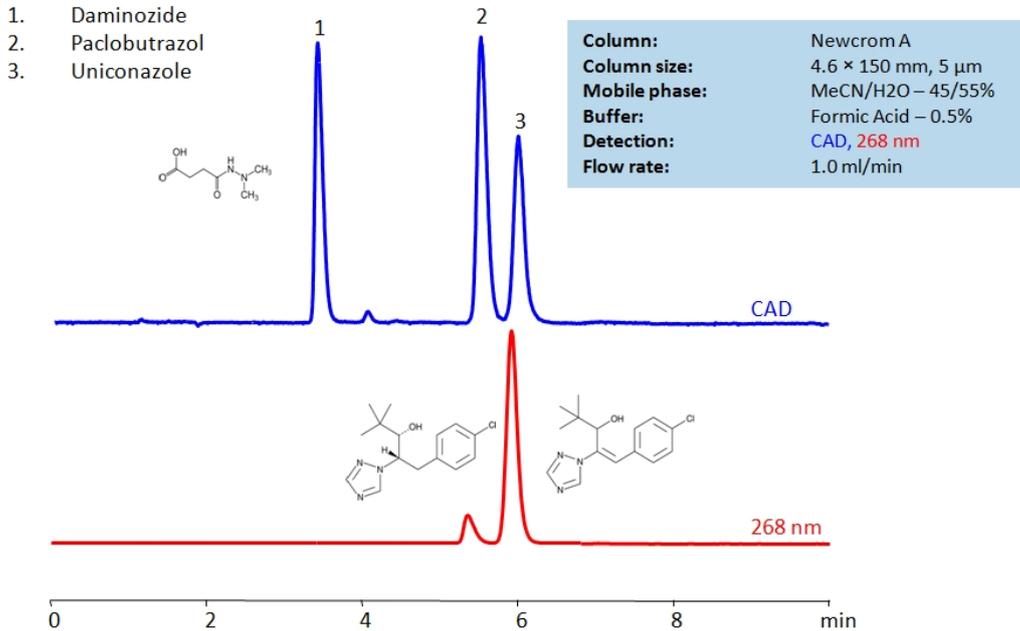


HPLC Separation of Growth Regulators (Paclobutrazol, Uniconazole, Daminozide) on Newcrom A Column



High Performance Liquid Chromatography (HPLC) Method for Analysis of Paclobutrazol , Uniconazole-P , Daminozide .

Daminozide is a plant growth regulator with the chemical formula C₆H₁₂N₂O₃ . It has a variety of alternate names including: aminozide, Alar, Kylar, SADH, B-995, B-nine, and DMSA. As a pesticide, works through inhibiting the production of gibberellins. It was typically used in trees that produced fruit for consumption, but was withdrawn due to concerns of it being a carcinogen. It is still occasionally used in ornamental plants.

Paclobutrazol (PBZ) is an organic fungicide with the chemical formula C₁₅H₂₀ClN₃O . It works through inhibiting the production of gibberellins, which are plant growth hormones. Through reducing reducing internodal growth, it causes stronger stems, greater root growth, and earlier fruitset. It can also reduce frost sensitivity in plants.

Uniconazole is a plant growth regulator with the chemical formula C₁₅H₁₈ClN₃O . As a pesticide, works through inhibiting the production of gibberellins, which are plant growth hormones. It is typically used in perennials and ornamental plants to ensure they are a marketable size before they bloom.

Paclobutrazol , Uniconazole-P , Daminozide can be retained and analyzed using the Newcrom A stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water and acetonitrile (MeCN) with a Formic Acid buffer. Detection is performed using CAD.

Method Parameters

Column	Newcrom A, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN/H2O
Buffer	H2SO4
Flow Rate	1.0 mL/min
Detection	UV 210 nm

Quelle: <https://sielc.com/hplc-separation-of-growth-regulators-on-newcrom-a-column>