HPLC Method for Analysis of Isoproturon on Primesep 100 Column

Separation type: Liquid Chromatography Mixed-mode SIELC Technologies

Isoproturon is classified as a phenylurea herbicide . It is used primarily for controlling annual grasses and broadleaf weeds in cereal crops such as wheat and barley. Isoproturon works by inhibiting photosynthesis in the targeted plants, which eventually leads to their death. It is absorbed by the roots and shoots of the plants and is most effective when applied before or during the early stages of weed growth.

Isoproturon can be retained, separated and analyzed using a Primesep 100 mixed-mode stationary phase column. The analysis employs an isocratic method with a simple mobile phase comprising water, acetonitrile (MeCN), and sulfuric acid as a buffer. This method allows for detection using UV 200 nm.

You can find detailed UV spectra of Isoproturon and information about its various lambda maxima by visiting the following link .

Method Parameters

Column	Primesep 100, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN – 45%
Buffer	H2SO4 -0.1%
Flow Rate	1.0 mL/min
Detection	UV 250 nm
Injection Volume	1 µl

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Quelle: https://sielc.com/hplc-method-isoproturon