

Waters column

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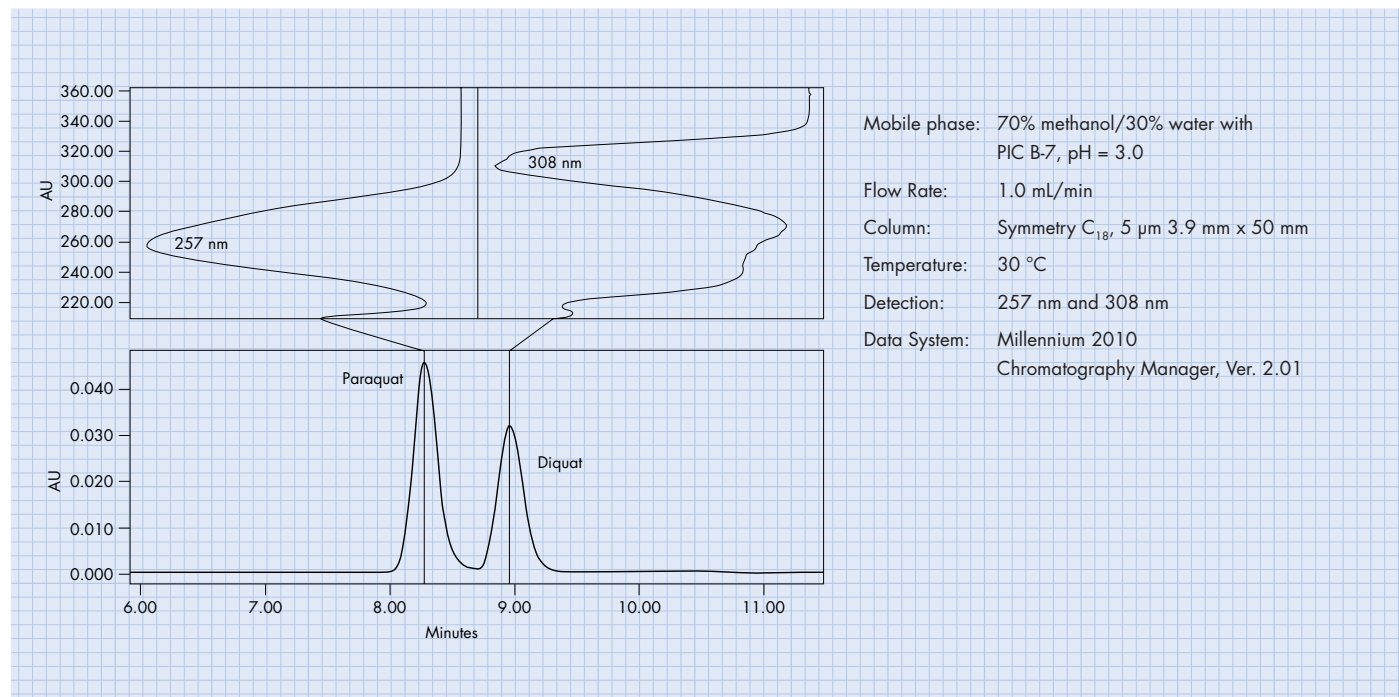
Paraquat/Diquat

Objective:

The current EPA method for analysis of aqueous samples for paraquat and diquat is method 549.1. This method specifies a photodiode array detector (PDA) because the HPLC procedure chosen in the method does not fully resolve the peaks. Paraquat is monitored at 257 nm, while diquat is monitored at 308 nm. The EPA method used a C₁₈ column and a mobile phase containing diethylamine (DEA), to maintain good peak shape. The objective was to provide an improved chromatographic separation without the need of an amine modifier.

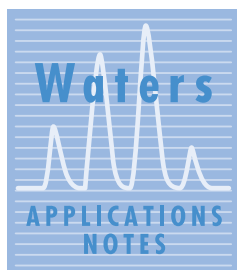
Details:

A Symmetry® C₁₈ 5µm column was used for this analysis because it does not require any amine modifier to prevent tailing. Also, its high level of retention for the analytes allowed the use of a 50 mm column. The short column, along with the elevated temperature utilized, allowed the analysis to be accomplished in under 15 minutes.



System:

A Waters 600 Multi-Solvent Delivery System with a column heater was used with a 717 Plus Autosampler and a 996 Photodiode Array Detector. System Control, data acquisition and reporting were accomplished with the Millennium 2010 Chromatography Manager, Version 2.01.



Millennium 2010 Chromatography Manager

Advanced computer technology simplifies accessing, interpreting, and reporting your results.

The productivity of today's chromatography is centered around the ability to find, generate, summarise, and report results in a way that meets your needs and complies with any regulatory requirements. The Millennium relational database lets you create your own view filters to customise the way you sort your information, such as "lotCode".

- Using the database, you can track a method history giving you audit trail capability that ensures total security of your raw data and results. In addition, you can specify "Access Type" which allows you to "lock" your methods for even greater security.
- The database keeps track of your instruments, triggering an alarm when scheduled maintenance is required. The Millennium relational database lets you view the injection information on any calibration point at any particular point in time on a processing sequence. This gives you a detailed account of the processing method for that injection, ensuring an accurate audit trail for regulatory compliance.
- The Millennium Chromatography Manager can provide acquisition and control for as many as four chromatographic systems, including three HP5890 GC.
- The Millennium Report Publisher has the capability to give you exactly what you want.

Waters 717plus Autosampler

Waters 717plus Autosampler is a fully programmable autosampler for High-Pressure Liquid Chromatography.

Waters 996 Photodiode Array Detector

Complete Spectral Data-Complete Confidence in Peak Purity and Identity.

With Waters 996 Photodiode Array Detector, you can be confident that if there is an impurity in your sample, you will find it; that your compound is really what you report it to be and not something else. Every spectral detail of your sample is rapidly, easily, and accurately detected. Every peak is analysed with mathematical precision so you can be sure to assess the purity of peaks and confirm their identity. And you will never have to trade off resolution against sensitivity.

- The 996 PDA Detector lets you look at your results in a variety of ways - even while a separation is under way.
- Absorbency measurement over the entire 190-800 nm wavelength range.
- The MaxPlot feature of the Millennium PDA Software automatically detects UV/Vis absorbing compounds anywhere within the 190-800 nm range. It measures their absorbance maxima, and plots a peak for each compound at its absorbance maximum, creating a composite chromatogram of all of the compounds it has detected.

Waters™ 600E Multisolvent Delivery System

A no-compromise approach to single pump gradient systems

Waters 600E Multisolvent Delivery System offers no-compromise high-performance in a true single pump design. By combining two Waters patented technologies, time-proven solvent delivery and innovative Random Phase Synchronization (RPS™) software, we can offer you unmatched performance compared with any other single pump gradient system.

- An exceptionally wide total flow range from 0.01 to 20.00 mL/min (with 45.0 mL/min optional) gives you the versatility to perform analytical and semi-preparative separations.

- You can centralize operations through single-keyboard system programming with either the new Waters 600E controller or with an integral, on line PC.
- For comprehensive programming of all pump, autosampler, and detector parameters directly from the controller keypad, the PowerLine™ software embedded in the 600 controller allows you to store up to 15 completed instrument methods for easy method retrieval.
- By linking your 600E to the Millennium 2010 Chromatography Manager, you can take advantage of complete system control and information management.

For more information

For more information on these products check boxes 14-18 on the Business Reply Card.