

CONFIRM PESTICIDE AND ENVIRONMENTAL POLLUTANTS WITH CONFIDENCE

The Measure of Confidence



Agilent Pesticide and Environmental Pollutant Analyzer 3.0

Powered by superior technology, these factory-configured, chemically tested analyzers put you on the *fast track* to measuring trace contaminants in complex matrices

Concern about trace-level food and environmental pollutants is driving the demand for rapid, reliable identification of chemical residues. Meeting this challenge requires the fast deployment of technologies that can differentiate pesticides, PAHs, and other targets from organic interferences.

Agilent's **Pesticide and Environmental Pollutant Analyzer 3.0** lets you accurately confirm target pesticides while reducing the time required from start-up to **results**. It combines the leading-edge innovations of Agilent's 7890B GC and 7000C Series Triple Quadrupole GC/MS with a comprehensive MRM database to transform your results from *acceptable to exceptional*.

The system includes the following components that save time and maximize performance:

- 1000+ compound MRM database, with 8000+ optimized transitions
- Graphical User Interface (GUI) that facilitates the building of target compound lists and MassHunter acquisition and quantitation methods
- Retention Time Locked (RTL) method that provides reliable peak identification and quantitation
- Checkout sample for field verification of chromatographic performance
- Capillary Flow Technology (CFT) and backflush for faster cycle time and reduced maintenance
- Quick-start guide that allows you to quickly utilize Agilent's advanced technologies and get outstanding analytical results immediately after installation
- CD-ROM with system-specific methods, checkout data files, and user manual



Agilent Technologies

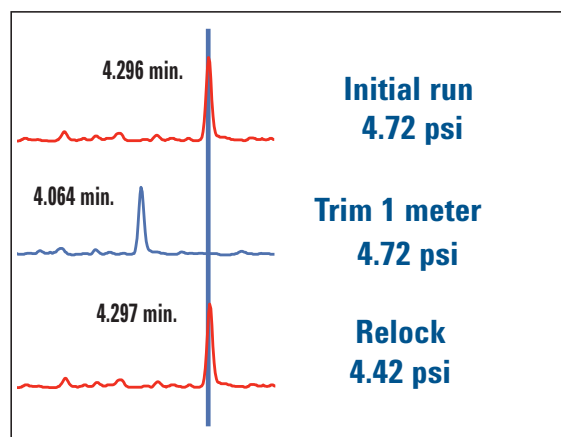
Technology innovations deliver superior analytical performance

Consistent retention times

Automated Retention Time Locking (Auto RTL)

Reliable target identification requires the precise matching of retention times (RTs) to database indices. Auto RTL precisely matches RTs from column-to-column, instrument-to-instrument, and lab-to-lab for methods that have the same nominal parameters.

Using five (5) calibration runs, Auto RTL *automatically adjusts* column flow for constant pressure and constant flow backflush methods, so you can be sure that retention times match your original analytical method.



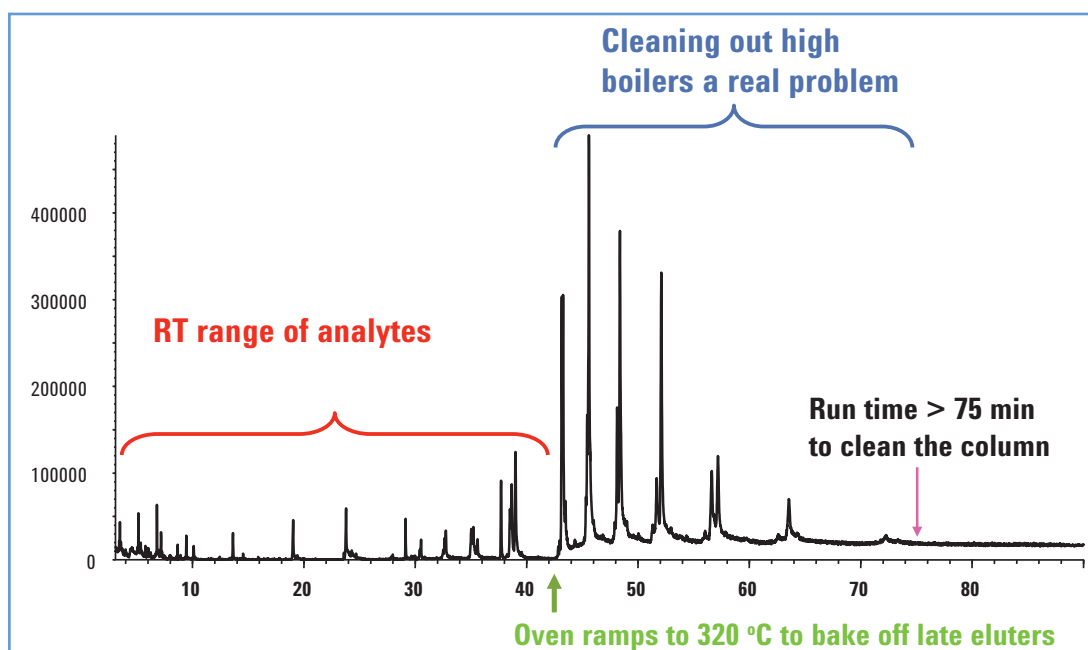
Auto RTL tuning following inlet or column maintenance enables your lab to start analyzing samples faster.

Remove heavy sample components

Capillary Flow Technology (CFT) Backflush

Injecting heavy matrix samples can place high-boiling compounds at the head of the column. Such materials can move slowly through the column and elute during subsequent runs, causing analyte interferences. They can also build up near the column head, which degrades chromatographic performance and increases the need for tedious column trimming.

Reversing column flow using CFT backflush eliminates the need to bake columns at the end of the run to remove heavy materials. CFT backflush also reduces system cycle time, minimizes source cleaning, and provides stable baselines and retention times for target analytes.



Here, CFT reduced the cycle time for target analytes in milk extract.

Choose from four fast configurations to meet your most complex analytical challenges

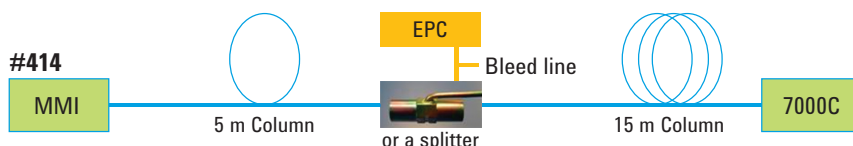
Part No	Backflush Method	Run Time	Dimensions	Backflush
G3445B#411	Flexible Constant Pressure (CP)	40 min	30 m column × 0.5 m restrictor	Post column
G3445B#415	Fast CP	20 min	15 m column × 0.5 m restrictor	Post column
G3445B#412	Fast Constant Flow (CF)	20 min	15 m column × 15 m column	Mid column
G3445B#414*	Selective CF	20 min	5 m column × 15 m column	Mid column

*Configured with a 240 V GC oven to allow rapid temperature ramps for oven and inlet programs.



Schematic diagram for the G3445B#415

Analyzer. Constant pressure (CP) backflush methods are designed for simplicity and ease of use.



Schematic diagram for the G3445B#414

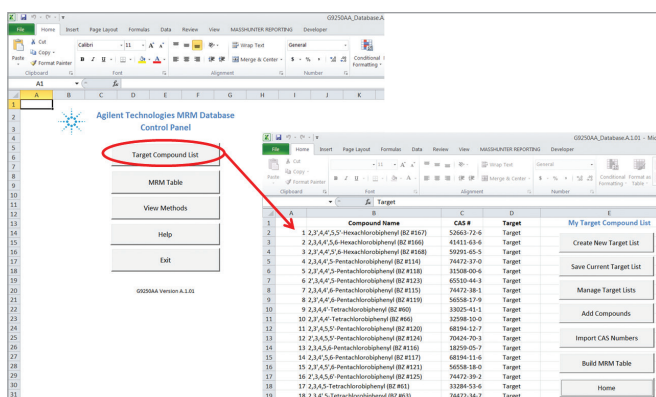
Analyzer. Constant flow (CF) backflush methods offer the highest sensitivity for trace-pesticide multi-residue analysis.

Powerful software tools simplify the creation of compound lists and analytical methods

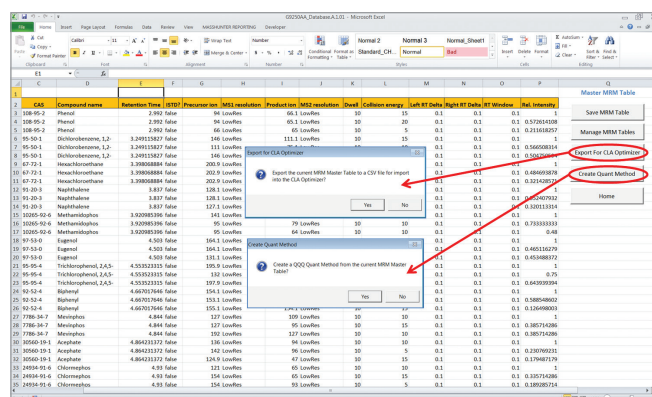
When developing acquisition and quantitation methods, you must build a target list that includes retention times and MRM transition data for specific compounds. The MRM Database simplifies this process by providing retention times and transition data for *more than 1000 compounds*.

In addition, a new Graphical User Interface (GUI) guides you through the creation of methods for your specific analysis. You can then use MassHunter's Compound List Assistant to optimize time segments and dwell times.

User-friendly menus help you build a target compound list



Quickly create MassHunter Acquisition and Quantitation methods

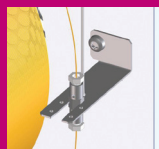


To review our full line of analyzers, visit agilent.com/chem/appkits

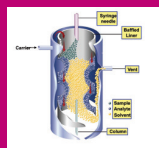
Perform highly sensitive, multi-residue target analysis in complex matrices using these built-in features:



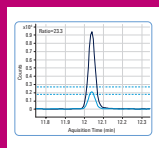
Flexible, comprehensive MRM Database contains over 1000 pesticides and pollutants, and is optimized with up to 8 MRM transitions to minimize matrix interference. It also includes a tool that makes it easy to build methods based on *your own* list.



Integrated Capillary Flow Technology (CFT) backflush promotes shorter analysis times, lower chemical background, longer column life, and less frequent ion source cleaning to improve uptime.



Multimode inlet (MMI) with large-volume injection enhances trace-level detection and adds flexibility by including hot or cold split/splitless capabilities.



Superior GC/MS/MS selectivity and sensitivity eliminates false results, and simplifies data review for improved productivity.



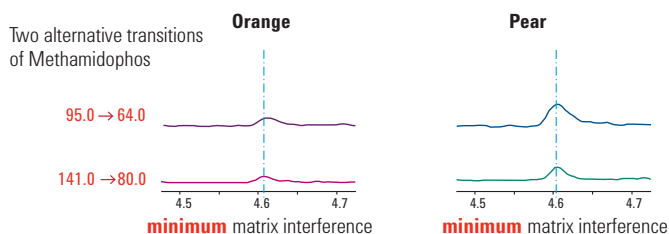
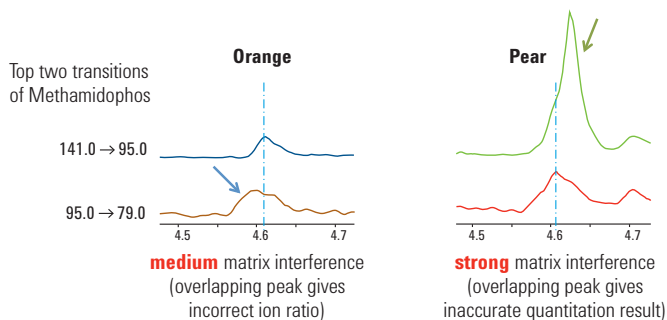
Productivity tools to help you make the most out of every analysis: Agilent autotune, batch-at-a-glance data review, and parameter-less integrator streamline your data review and processing.

Put your lab on the productivity *fast track*.

Contact your local Agilent Representative or Agilent Authorized Distributor

Call **800-227-9770** (in the U.S. or Canada) or visit **agilent.com/chem/apkpkits**

Boost your multi-residue screening productivity with the Agilent Pesticide and Environmental Pollutant Analyzer 3.0



The G9250AA database has up to 8 transitions for each compound. This allows the user to choose alternative transitions to minimize matrix interferences and improve quantitation results.

Ordering information:

Choose one of the following options when you order an Agilent **7000C Series Triple Quadrupole GC/MS** with an Agilent **7890B GC analyzer system**:

Flexibility-driven setup:

- **G3445B#411:** 40-minute run, 30 m column × 0.5 m restrictor, post column backflush
- **G3445B#415:** 20-minute run, 15 m column × 0.5 m restrictor, post column backflush

Performance-driven setup:

- **G3445B#412:** 20-minute run, 15 m column × 15 m column, mid column backflush
- **G3445B#414:** 20-minute run, 5 m column × 15 m column, mid column backflush

For customers who already own an Agilent GC/MS/MS system:

- **G9250AA (rev. A.1.01):** Pesticides and Environmental Pollutants MRM database with Graphical User Interface

Agilent also offers Single Quadrupole GC/MSD pesticide analyzers for broad screening at 5 to 100 ppb. Each is equipped with CFT Backflush, Deconvolution Reporting Software, and RTL Pesticide and Endocrine Disruptor library. Go to **agilent.com/chem/library**, brochure 5990-5310EN, for details.

