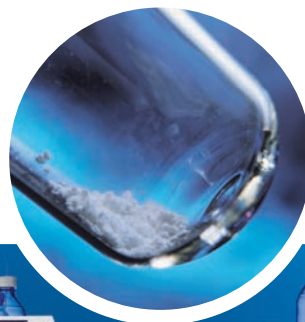


## Agilent 1200 Series Purification Systems

### Redefining HPLC purification

Preparative HPLC is the technique of choice for compound isolation and purification within the pharmaceutical and life science industries. Agilent Technologies offers purification solutions from nano gram to gram sample quantities, based on our industry leading 1200 Series HPLC system which is known for its reliability worldwide.

Agilent 1200 Series purification systems, with their modular hardware and software approach, are designed to allow you to configure your system according to your needs, without having to make compromises. Agilent has developed dedicated purification systems for different sample quantities and optimized them for the highest recovery and purity, throughput and productivity.



**Agilent 1200 Series purification system analytical scale (AS)**  
for sample amounts in the low mg range and flow rates up to 5 (10) mL/min.



**Agilent 1200 Series purification system preparative scale (PS)**  
for sample amounts < 1 g and flow rates up to 100 mL/min.



# Your first great discovery will be the system itself

With their compact and stackable design, the Agilent 1200 Series purification systems offer you scaleable choices that let you match the purification process to sample size. Choose from a wide selection of:

- Pumps with flow rates up to 100 mL/min
- Autosamplers for fast injection of high volumes
- Detectors with various flow cells
- Dedicated fraction collectors with a variety of fraction containers
- Extensive HPLC column portfolio, providing separation solutions from analytical to preparative scale



## Multiple collection modes

The system collects fractions based on time, peak or mass, or even manually with the Agilent 1200 Series instant pilot. Any combination of time windows, thresholds, up and down slopes, upper thresholds and trigger sources, such as UV and/or mass, can be used. You collect exactly the fractions you need – nothing else. To determine the right trigger parameters, simply use the fraction preview tool to simulate the fraction collection triggering process.

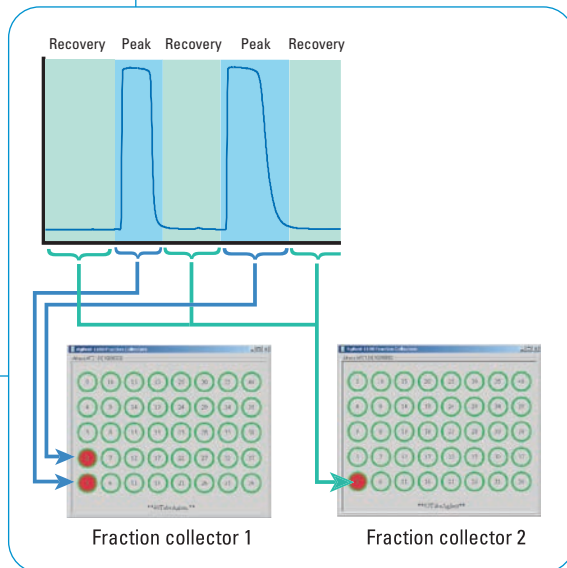
## Integrated safety features for walk-away confidence

- Leak detection and handling is standard in all 1200 Series modules
- Automatic tray recognition prevents overflow of fractions
- Solvent level control in the software will shut down the system before the pump runs dry
- Forced fume extraction in fraction collectors allows the system to be set up without a fume cupboard

Each module is equipped with early maintenance feedback (EMF) functionality which alerts the user when maintenance is due.

## Recovery strategies

If an important compound is missed during fraction collection, it is not lost but collected in the recovery location assigned to the sample. Agilent offers full software-controlled recovery solutions to make sure that your valuable compound can never be lost.



### Agilent 1200 Series preparative pump

This pump delivers a stable and reproducible flow at both low and high flow rates. By adding a second pump, a high-pressure gradient system can be assembled easily.

- Flow rates up to 100 mL/min at 400 bar without changing pump heads
- Precise high-pressure binary gradient formation with low delay volume for preparative and analytical applications with flow rates as low as 0.5 mL/min
- Automated seal wash using a peristaltic pump for extended seal lifetime
- Setting upper and lower pressure limits will turn off the pump, e.g. if the column gets blocked or leaks occur
- Automated electromagnetic purge valve for convenient system setup

### Agilent 1200 Series fraction collectors

Designed for lowest delay volumes to minimize peak dispersion and carryover between fractions.

- Patented delay sensor for easy determination of delay volume calibration
- System intelligence with control area network (CAN) processes data in real time for instantaneous and precise fraction collection
- Trays for a variety of well-plates, vials and test tubes, as well as unlimited fraction volumes by using funnel collection in up to 120 external vessels
- Extended fraction collection capacity with collection in up to three fraction collectors
- Optional Peltier thermostating to protect thermally labile compounds

### Agilent 6100 Series single quadrupole LC/MS

- MS-based fraction collection can be combined with any analog detector signal (and/or logic) for higher specificity and flexibility
- Molecular weight and structural data complement UV spectral information for improved confidence
- Unique multimode source for simultaneous ESI and APCI combined with rapid positive and negative polarity switching provides more universal detection capabilities

### Agilent 1200 Series valves solutions

- Higher throughput with alternating column regeneration
- Flow path selection for analytical and preparative applications in a combined system
- Column selection for greater flexibility

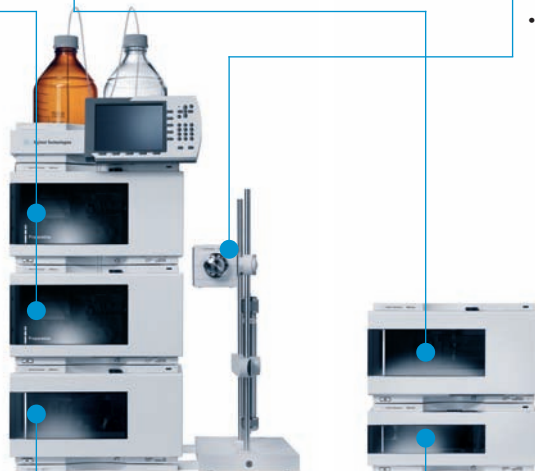


### Agilent purification software packages

- Standard, advanced or walk-up solutions
- Data Browser for fast and easy data review

### Agilent active splitter

- Broad range of variable split ratios
- Constant, accurate split ratios
- Minimal post-column delay volumes minimizes dispersion and delay times
- Split ratio does not influence fraction collection delay times, eliminating the need to re-calibrate the system



### Agilent 1200 Series dual loop autosampler (PS)

Flexible sample handling and high sample throughput from analytical to preparative scale purification.

- Dual fixed-loop design for injection volume flexibility (analytical or preparative)
- Fast injection of high volumes
- Multi-draw function for very large sample volumes
- Internal and external needle wash mechanism for lowest carryover
- Optional Peltier thermostating to protect thermally labile compounds
- Injection from a variety of sample containers

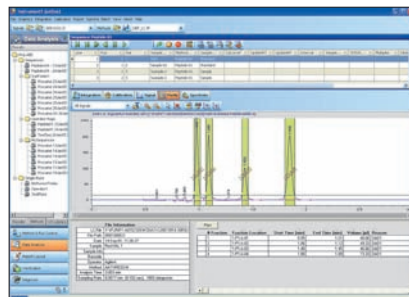


### Agilent 1200 Series UV detectors

- Detection range from 190 to 950 nm
- Up to five signals simultaneously (MWD) and full spectra acquisition and analysis (DAD)
- Verification of separation quality with peak purity, multiple signals and spectral libraries

# Software solutions for different user needs

Standard solution	Advanced solution	Walk-up solution
Standard functionality for easy system usage. Security Pack for 21 CFR Part 11 compliance.	Easy management of large numbers of samples, flexible workflow integration.	System management for secure access. Ideal for novice users.
<b>Agilent ChemStation Software</b>	<b>Agilent Purification Software</b>	<b>Agilent Easy Access Software</b>
Remote data browsing and purity reports at your desk. <b>Agilent Data Browser</b>		



**Agilent ChemStation Software – fraction task screen.**

Software solutions for different user needs.

## The standard purification solution provides:

- Full system control via graphical user interface
- Standard purification functionality for easy system usage
- Sophisticated trigger options
- Fraction preview helps to identify the right trigger parameters
- Fraction task screen provides straightforward purification data review
- ChemStation Security Pack supports 21 CFR Part 11 compliance

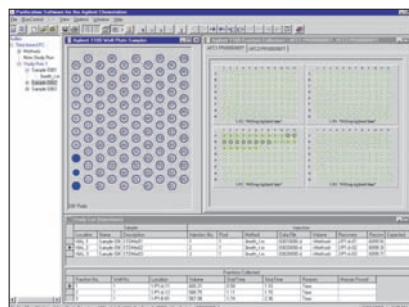
## The advanced purification solution additionally provides:

- Color-coded graphical user interface for easy sample setup and sample/fraction tracking
- Sophisticated export/import functionality integrates the system into the workflow
- Extended reporting capabilities
- Navigation panel for fast data review

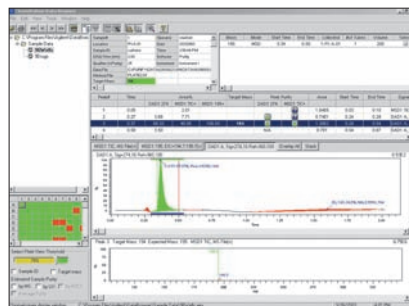
## The walk up solution provides:

- Flexible administrator tools to set up user access, queue tracking and project management
- Simple sample submission and status checking
- E-mail notification of results
- Rapid confirmation of molecular weight and target ion presence

Easy Access Software simplifies sample submission, while the Agilent Data Browser makes data review equally easy. Chemists can review large numbers of samples for compound confirmation and purity evaluation.



**Agilent Purification Software – autosampler and fraction collector plate layout.**



**Agilent Data Browser software – main screen.**

[www.agilent.com/chem/purification](http://www.agilent.com/chem/purification)

Published July 1, 2006  
Publication Number 5989-5400EN  
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