Purely Better  Capable and Efficient
Agilent SD-2 Purification System
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*Capable and efficient*

- Agilent 325 UV/VIS Dual WL Detector
- Agilent SD-2 Solvent Delivery Modules
  1 – 1200 ml/min
  Exchangeable Pump Heads
- Agilent 530 OPTO Control Module
- Agilent 530 Fluidics Module
- Easy LC ReSponder Software
Agilent LC ReSponder User Interface

Easy process control software
Agilent SD-2 Solvent Delivery Modules

*Maximum capacity for large scale throughput*

- High flow consistency, reliability and low pulsation for high-flow applications – interactive key-board control or fully automated PC control

- Low or high pressure mixing setup for binary gradient work

- **Exchangeable pump heads** for flow rates of 200, 800 and 1,200 mL/min for 1 to 8 inch ID columns

Extended power range above 500 mL/min
Agilent 7725i Manual Injector

Robust make before break design

- Mounted in Organiser or Mast Assembly
- Available with Prep LC loops of 50 mL or 100 mL volume
- ≤ 5 samples and large volume up to 100 mL
- With internal switch for stand-alone use
Agilent 218 or SD-1/SD-2 Injection Pump

*Convenient large scale sampling*

- **Extremely flexible solution** – when the sample volume is too high to inject through an autosampler or manual injector

- **Variable injection volume range** – by choice of pump and pump head
Agilent 325 UV-Vis Detector

Unique dynamic range

- **Ideal to cover extremely high and low concentrations without flow cell change** – dual path length flow cells
  - 9 x 1 mm flow cell has useable absorbance up to 13 AU
  - 4 x 0.15 mm flow cell has useable absorbance up to 80 AU
- **Maximum sensitivity** over the wavelength range from 190 to 900 nm

The dual path length cell maximizes sensitivity for analytical applications whilst preventing “flat top peaks” for preparative runs. The dual path cell is as described – its two cells merged into one!

Achieve up to 80 AU when moving from analytical to preparative operation, without changing the dual pathlength flow cell. Above shows dynamic range from 2 to 21 AU of 5-hydroxytryptophan sample.

Column: Varian Pursuit XRs C18; Mobile phase: 85% water, 15% methanol; Detection: UV at 230 and 280 nm; Flow: 21 mL/min
Agilent 530 OPTO Control Module

*Single point fluid control*

- **Independent control module** - serving as computer interface to PC
- **Safe valve control** - separated electronics from solvent management
- **Fully automated operation** - under LC ReSponder Software control
- **Enables full documentation** of all process steps and interactions
  - Sample injection
  - Solvent selection
  - Gradient formation – high pressure and low pressure
  - Fractionation and collection of peaks
Agilent 530 Fluidics Module

*Fully integrated valve-based fractionation*

- **Safe pneumatic valves** diverting flow to appropriate solvent or collection vessel
- **Full electronic control** of air-driven valves (90 psi air supply) by 530 OPTO control module
- **Minimized carryover** - air purges residual solvent out of the fraction lines after each collection and into the collection vessel
- **Flexible solvent supply** - up to 8 solvent inlets: 4A + 4B channels
- **Automatic large sample injection** – full control of additional injection pump
- **Valve based fractionation** - up to 10 fraction outlets + 1 waste valve
- **Recycle valve and/or low pressure gradient valve** - available with SD-2 pump
LC ReSponder Control Software
For Chemists and Process or Chemical Engineers

- **Process control focused** Data Acquisition and Control Package

- **Automated** solvent selection, gradient control, + fraction collection

- **Automated system control**, data collection and reporting.

- **Programmable** sample loading, gradient formation, fraction collection and column switching.

- **Flexible signal display** - 3 detector traces, while monitoring nine separate analog inputs.
LC ReSponder Control Software
For Chemists and Process or Chemical Engineers

• Two levels of 21 CFR Part 11 LC security capabilities

  • Basic 21 CFR Part 11 features - automated internal documentation (methods, data, and run files) and password protection

  • Enhanced 21 CFR Part 11 features - all the basic features, plus: Release Methods Signatures, Networking functions – local and corporate, and E-mail notification of potential system violators entry

• Configurable multi-level password protection

• 21 CFR Part 11 Electronic Signatures and Security Package

• Validation support documentation
Agilent Load & Lock Columns & Self-Packer

Leading innovative DAC column & self-packer technology

- **Highest Performance** – achieve superior results with the unique flow distribution system.
- **Maximum Flexibility** – perform both Dynamic or Static “locked” axial compression (DAC/SAC) at 1 inch up to 3 inch ID.
- **Greater Convenience** – pack your own column in a few minutes.
- **Maximum Mobility** – column and packing station are combined in one easy-to-move skid, wherever it’s needed.

Impact on profile C: with Agilent plate

Unmatched reproducibility of self-packed columns
Agilent SD-2 Purification System

*Capable and efficient*

- **Bench-top system design offering pilot scale capacity** – limited bench space requirements

- **Pilot scale high throughput capability** – up to 1,200 mL/min flow rate which is compatible with 8 inch ID columns *without sacrificing the needed pressure capacity at 1,500 psi*

- **Production oriented for chemists and chemical or process engineers** – interactive LCR ReSponder software and solvent handling

- **Freeing up hands-on operator time** – full automated computer-based operation and documentation for 21 CFR Part 11 compliance support