

# VWR Hitachi LA8080 high speed amino acid analyser

HIGH-PERFORMANCE, COMPACT AND RELIABLE



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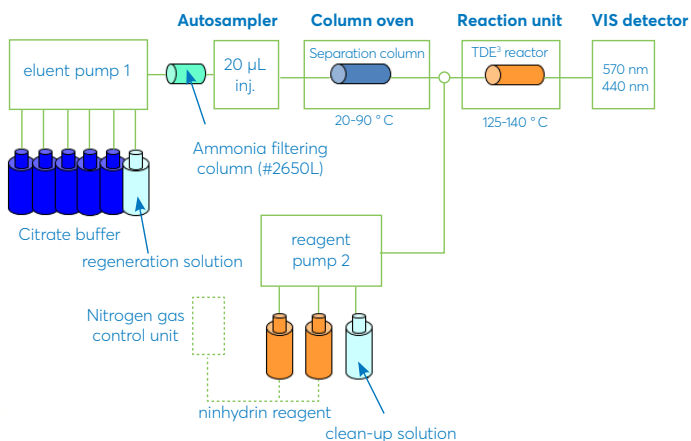
The LA8080 amino acid analyser by VWR Hitachi combines the robustness and quality of Hitachi LC products with the performance of post-column ninhydrin application. Based on components of VWR Hitachi HPLC instruments, the new bench top design gives scientists new possibilities in their analysis workflow.

- Easy access to buffers
- Rapid addition of new samples
- Reduced total cost of ownership with high quality materials and structured service concept
- Reduced footprint (30%)
- Improved accessibility for daily tasks
- High safety functionality with improved leak sensor positioning

Full package with Agilent™ Openlab CDS (Chromatography Data Software) enables the LA8080 to be used in regulated labs.

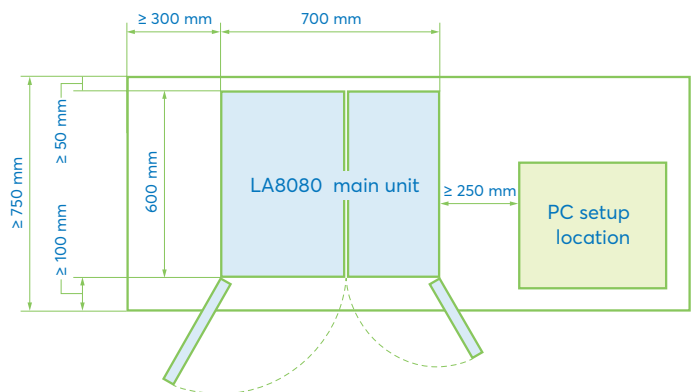
- CFR 21 part 11 compliance (FDA ready) including all requirements regarding data integrity, audit trail and user control
- Easy method and sequence creation
- Reduced lab time
  - Automated injection/sequence procedure
  - Pre-defined and adaptable templates for individual reports
- Connectivity to LIMS systems and data export

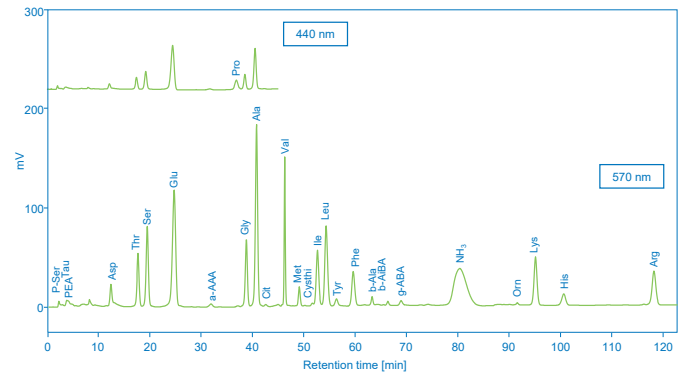
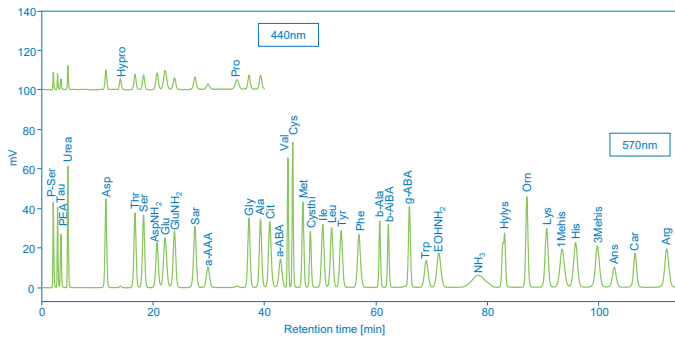
## Flow line diagram



## SETUP EXAMPLE

Table height:  $\geq 600$  mm  
Load limit of table:  $\geq 150$  kg





## APPLICATION 1

### IMPROVE BEER QUALITY CONTROL

The flavour of beer is the result of a specific mixture of compounds including alcohols, free amino acids and aldehydes. These compounds are formed during the fermentation process after adding brewer’s yeast to the wort. Since the amino acid content plays a key role in the regulation of the complex processes occurring there, the analysis of amino acid composition is very helpful for quality control in breweries.

### CHOOSE YOUR APPLICATION

The LA8080 amino acid analyser provides you with a ready to use solution for various samples.

- Feedstuff
- Food and beverage
- Cell culture media
- Pharmaceutical drug precursors

### HIGHLIGHTS

- Amino acid screening or amino acid analysis
- Full AAA solution
- Easy sample preparation
- Fast separation of physiological fluid amino acids (free amino acids) and protein hydrolyzate amino acids

### TOTAL COST OF OWNERSHIP

- Based on standard LC maintenance parts
- No mass detector required
- Applications include buffers, column and ready to use methods

## APPLICATION 2

### ‘THE UMAMI-TASTE’ - AMINO ACIDS IN SOY SAUCE

Seasoning sauces like soy sauce, fish sauce or Worcestershire sauce are the results of a fermentation process. Natural ingredients like soybeans, fish, grain or yeast extract are a source for free amino acids, mainly glutamate, causing the so called ‘Umami’ taste.

## SPECIFICATIONS

System performance (by protein hydrolysate analysis method)	
Analysis time	30 min (Net)
Reproducibility of peak retention time	CV 0.3 % (Arg)
Reproducibility of peak area	CV 1.0 % (Gly, His)
Detection limit	2.5 pmol (S/N=2, Asp)
Analyzer	
Column	Size: 4.6 mm ID x 60 mm Resin: Hitachi custom ion exchange resin
Pump	Flow rate range: 0.001 – 1.000 mL/min Discharge pressure: 0 – 34 MPa Gradient elution method with 6 solutions
Autosampler	Injection method: Direct injection method Sample vial capacity: 1,500 µL No. of vials accommodated: 120 (with optional cooler installed: 100) Sample injection volume: 0.5 – 100 µL
Column oven	System: Peltier Temperature setting: 20 – 90 °C (in 1 °C steps)
Reaction unit	System: Electronic heating Temperature setting: 50 – 140 °C (in 1 °C steps)
Detector	Spectrophotometer: Aberration-corrected concave diffraction grating Wavelength: 570 nm, 440 nm
Others	
Dimensions (excluding PC)	700 (W) x 600 (D) x 850 (H) mm
Weight (excluding PC)	Approx. 130 kg
Temperature range	15 - 35
Power supply	*100, 115, 220, 230, 240 V ± 10 V, 800 VA, 50 or 60 Hz*
Nitrogen gas	Nitrogen gas source must be prepared.

\*Standard column

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