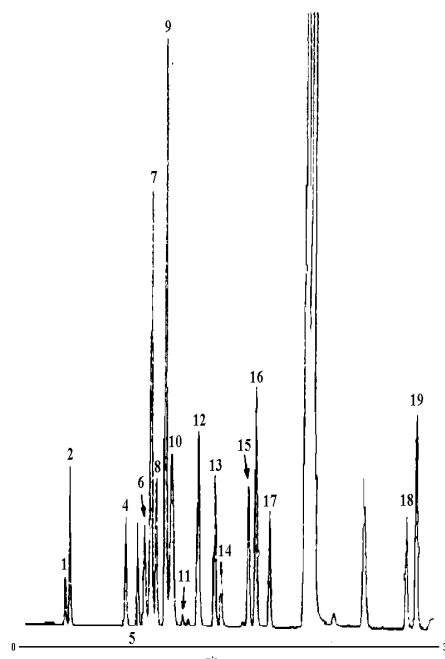


### Amino Acid Determination in Intravenous Solution with Automated Pre-column FMOC Derivatisation and Fluorescence Detection

#### Sample

- |                  |                   |
|------------------|-------------------|
| 1. Aspartic Acid | 11. Tyrosine      |
| 2. Glutamic Acid | 12. Arginine      |
| 3. OH-Proline    | 13. Valine        |
| 4. Asparagine    | 14. Methionine    |
| 5. Serine        | 15. Isoleucine    |
| 6. Histidine     | 16. Leucine       |
| 7. Glycine       | 17. Phenylalanine |
| 8. Threonine     | 18. Ornithine     |
| 9. Alanine       | 19. Lysine        |
| 10. Proline      |                   |

#### Conditions



Intravenous Solution.

#### Preparation

Diluted with derivatisation buffer (1:100), and filtered.

#### Amino Acid Analysis

These notes illustrate the flexibility of the GBC chromatography equipment in performing complicated pre-column chemistries automatically via the LC1650 and data management station. There is a need in the clinical, food, and Biotechnological industries for the analysis of different sample matrices containing amino acids. The sample matrix can provide the largest problems for most chromatography equipment. The combination of excellent chromatography, precise flow control and sensitive, selective detection, give GBC the edge over most post-column systems as well as many of the pre-column derivative systems.

Column: (150 x 4.6 mm ID)

Mobile Phase: Solvent A: 30 mM Ammonium Phosphate (pH 6.5) (85%) and Methanol (15%).  
Solvent B: Water (85%) and Methanol (15%).  
Solvent C: Acetonitrile (90%) and Water (10%).

Gradient: Equilibrate for 5 min. from 68% B and 15% C to 43.2% B and 46% C in 32 min. to 100% C in 0.01 min. at 100% C for 3 min., to 68% B and 15% C in 0.01 min.

Flow Rate: 1.0 ml/min

Temperature: 38°C.

Sample: Intravenous Solution diluted 100 fold with derivatisation buffer.

Injection Vol: 5 µl.

Setting: 263 nm and emission 315 nm.

*'...the sample is diluted with a derivatisation buffer and filtered; the system takes care of the rest...'*



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## GBC HPLC Instrumentation

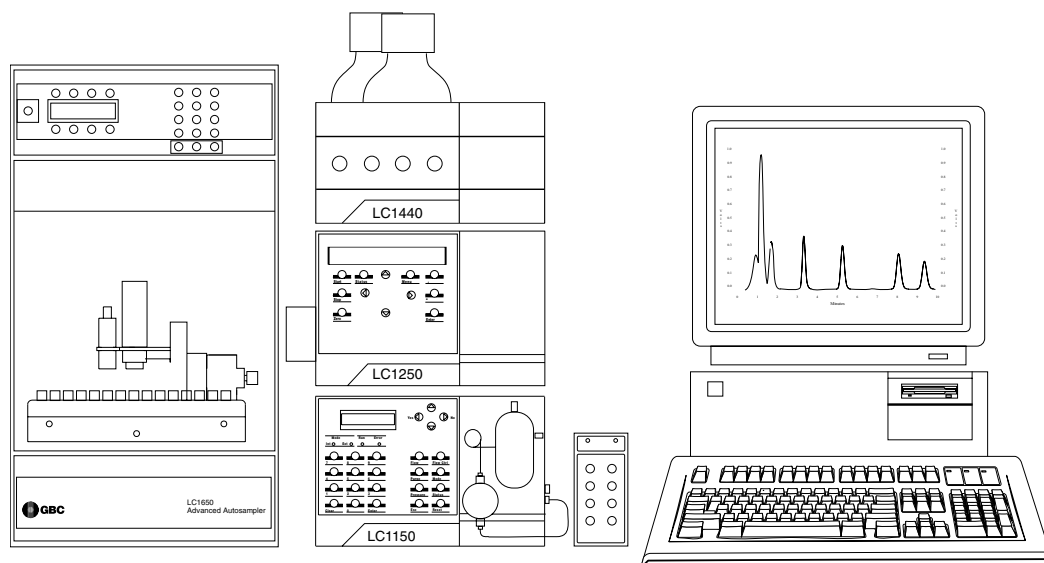
LC1150 Quaternary Gradient HPLC Pump  
LC1250 Fluorescence Detector  
LC1120/LC1150 HPLC Column Oven Option  
LC1650 Advanced Autosampler  
WinChrom Chromatography Data  
Management System

## Major Features

Resolution  
Sensitivity  
Selectivity  
Flexibility  
Precision  
Accuracy

## Relevant Industries

Biotechnological  
Pharmaceutical  
Academic (Biochemistry)  
Food (Quality Control)



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