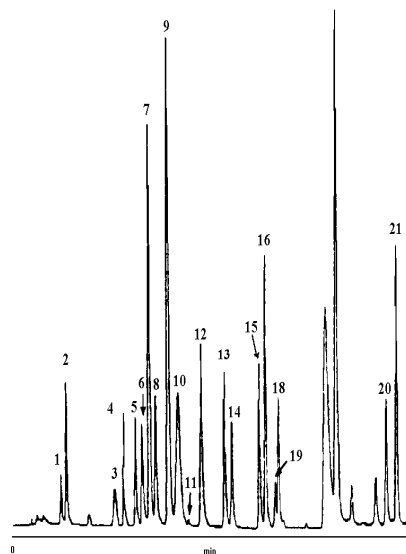


Amino Acid Determination in Intravenous Solution with Automated Pre-column FMOC Derivatisation and UV Detection

Sample

- | | |
|------------------|-------------------|
| 1. Aspartic Acid | 12. Arginine |
| 2. Glutamic Acid | 13. Valine |
| 3. OH-Proline | 14. Methionine |
| 4. Asparagine | 15. Isoleucine |
| 5. Serine | 16. Leucine |
| 6. Histidine | 17. Tryptophan |
| 7. Glycine | 18. Phenylalanine |
| 8. Threonine | 19. Cystine |
| 9. Alanine | 20. Ornithine |
| 10. Proline | 21. Lysine |
| 11. Tyrosine | |

Conditions



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

Intravenous Solution.

Preparation

Diluted with derivatisation buffer (1:100), 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.

AMINOMATE 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. 0.00 to 2.00 min 42% B and 16% C, to 39% B and 22% C in 1.0 min, to 38.5% B and 23% C in 3.0 min, to 31% B and 38% C in 10 min, to 27.5% B and 45% C in 1.0 min, at 27% B and 45% C for 3 min, to 22.5% B and 55% C in 2 min, to 100% C in 1 min, at 100% C for 4 min, to 42% B and 16% C in 1 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.



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Major Features

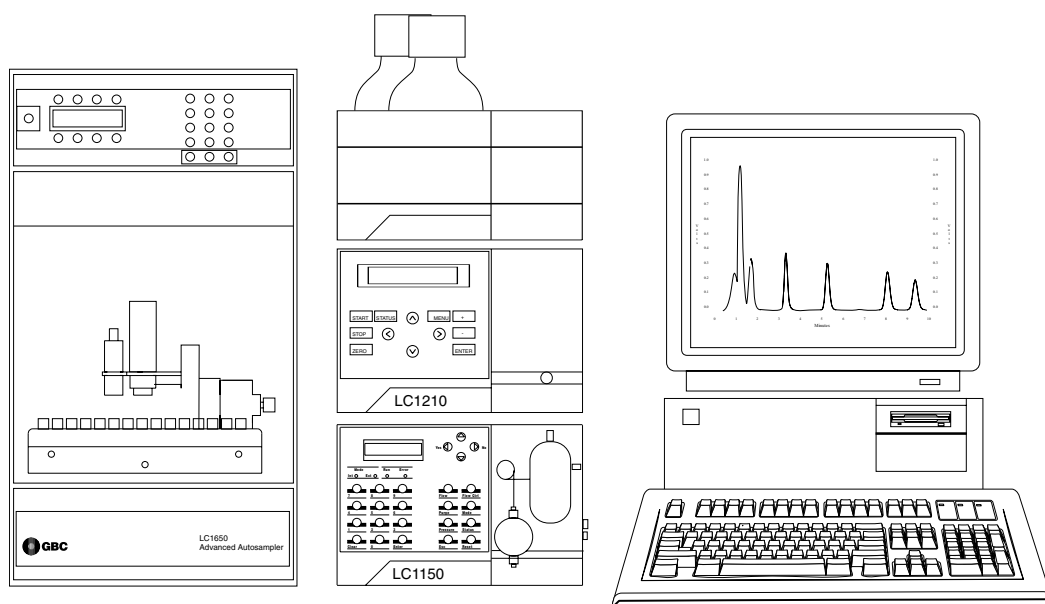
Resolution
Sensitivity
Selectivity
Flexibility
Precision
Accuracy

Relevant Industries

Biotechnological
Pharmaceutical
Academic (Biochemistry)
Food (Quality Control)

GBC HPLC Instrumentation

LC1150 Quaternary Gradient HPLC Pump
LC1210 Programmable Dual Wavelength
Scanning UV/Vis Detector
LC1120/LC1150 HPLC Column Oven Option
LC1650 Advanced Autosampler
WinChrom Chromatography Data
Management System



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