



Amino acids

Optical isomer separation of amino acids

Application Note

BioPharma

Authors

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Introduction

Gas chromatography using an Agilent CP-Chirasil Val column separates 18 optical isomers of amino acids in just over 50 minutes.



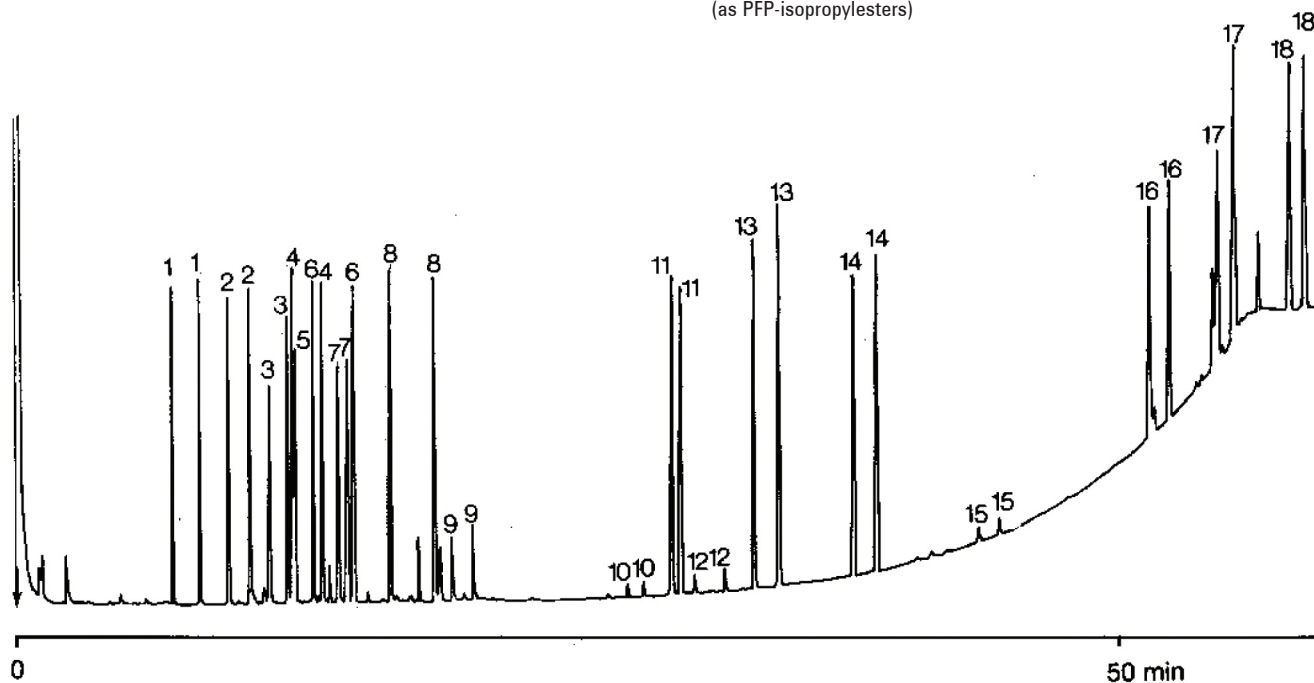
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Conditions

Technique : GC-capillary
Column : Agilent CP-Chirasil Val, 0.22 mm x 25 m fused silica
WCOT Chirasil Val (0.12 μ m) (Part no. CP7495)
Temperature : 80 °C (3 min) \rightarrow 190 °C, 3 °C/min
Carrier Gas : N₂, 60 kPa (0.6 bar), 14.5 cm/s
Injector : Splitter, 20 mL/min
Detector : FID, 16 x 10⁻¹² Afs
Sample Size : 0.5 μ L

Peak identification

1. DL-alanine
2. DL-valine
3. DL-threonine
4. DL-allo-isoleucine
5. glycine
6. DL-isoleucine
7. DL-proline
8. DL-leucine
9. DL-serine
10. DL-cysteine
11. DL-aspartic acid
12. DL-methionine
13. DL-phenylalanine
14. DL-glutamic acid
15. DL-tyrosine
16. DL-omithine
17. DL-lysine
18. DL-tryptophan
(as PFP-isopropylesters)



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