Amino Acid Neurotransmitter Analysis with Star 9080 EC Detector

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Varian Application Note
Number 17

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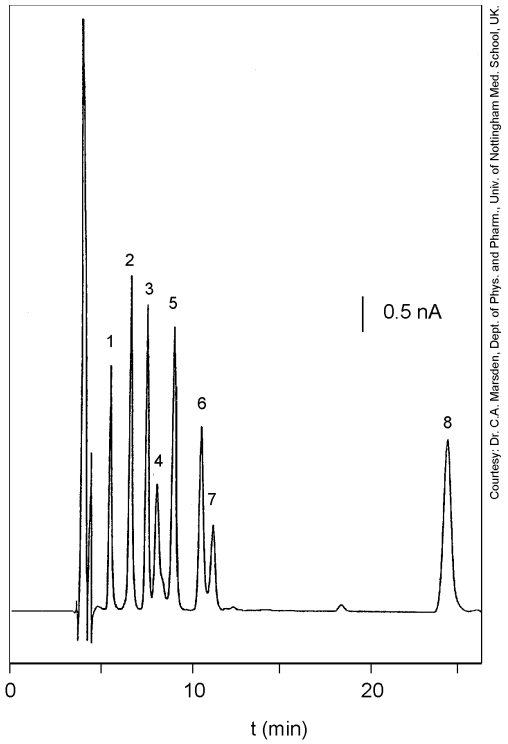
Key Words: *Star 9080, Amino Acids, Clinical, Biomedical*

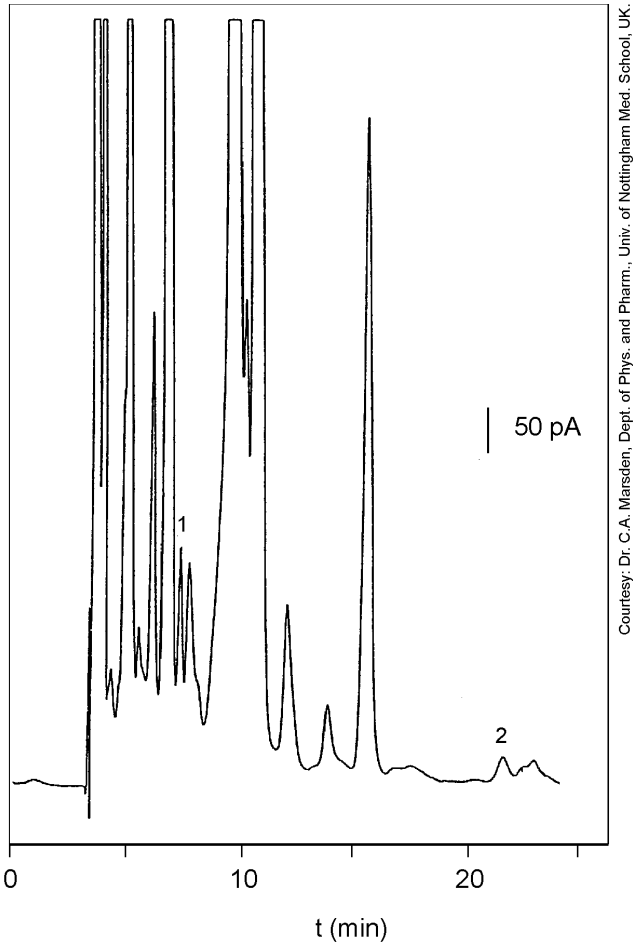
Standard Separation



Analysis of amino acid neurotransmitters after OPA-sulphite derivatisation.
The amount injected is 20 pmol (1 µmol/L) for each compound.
Peaks are: serine (1), glycine (2), taurine (3), glutamate (4), arginine (5), alanine (6), OPA reagent (7) and GABA (8).

Detector	Varian Star 9080 Amperometric Electrochemical Detector
Column	C18, 250 x 4.6 mm, 5 µ
Flow rate	0.70 mL/min
Mobile phase	100 mM Phosphate buffer, pH 4.5, 0.5 mM EDTA, 25% methanol
Sample	20 µL inj., amino acids derivatised with OPA-sulphite
Temperature	ambient
Flowcell	2.74 mm Glassy Carbon working electrode
E-cell	850 mV (*vs.* Ag/AgCl)

Analysis of Rat Hippocampal Tissue



Analysis of rat ventral hippocampal dialysate after OPA-sulphite derivatisation.
Concentrations (amounts) are: 1. glutamate 3.6 nmolL (72 fmol) and 2. GABA 1.7 nmol/L (34 fmol).