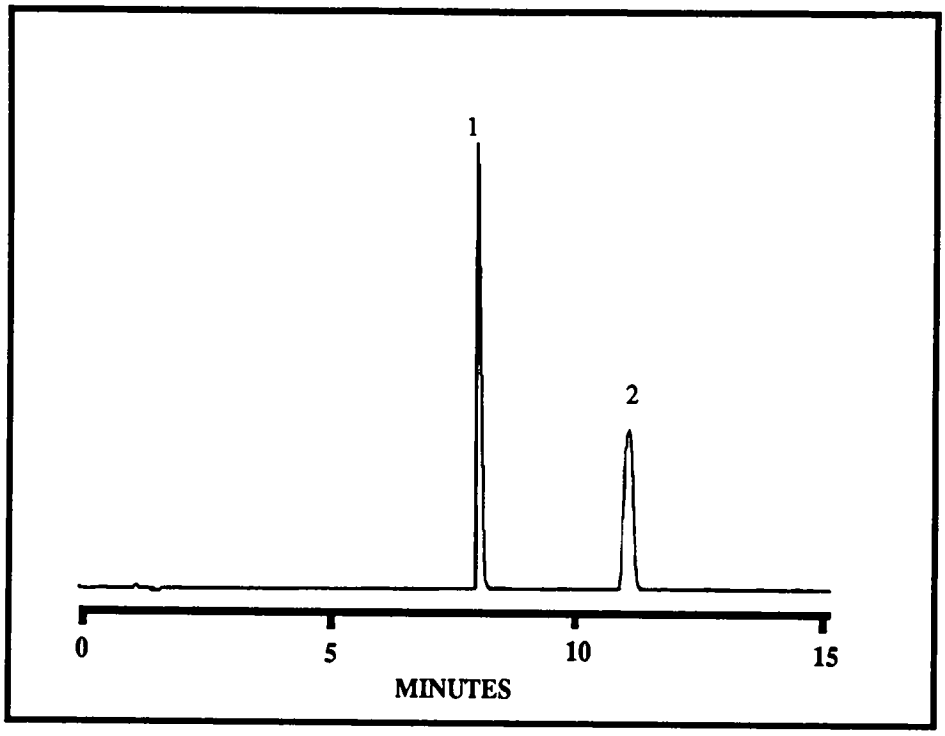
PHARMACEUTICAL Application Briefs

94-0447

Rx 013 2/90

Rx Prescription for success

ELECTROPHEROGRAM OF DIURETIC ACTIVE INGREDIENTS



CONDITIONS ON WATERS QUANTA™ 4000

MODE:	FZCE
BUFFER:	0.05M NaH_2PO_4 pH = 6 with NaOH
CAPILLARY:	60 cm x 75 um i.d.
VOLTAGE:	+ 14 KV
DETECTOR:	UV @ 214 nm
INJECTION:	Hydrostatic 10 cm x 10 sec (1.7 nl approximately)

PEAK IDENTIFICATION:

1. Triamterine 0.1 mg/ml
2. Hydrochlorthiazide 0.1 mg/ml

SAMPLE MATRIX: **Standard Solution**

REFERENCE:
Michael Swartz, Pharmaceutical Laboratory, Waters Chromatography Division

Author: Peter Rahn

INTERESTING FACTS

1. This CE separation has an elution order which is the inverse to the separation achieved with HPLC.

2. With CE, manipulating different variables can result in significant selectivity differences. The separations achieved by CE complement separations currently being performed by HPLC since the separation mechanism is similar but the results may be quite different.

3. One of the major variables which can be manipulated is the pH. With the current capillaries, pH 10 or pH 11 is not a limitation. With silica based HPLC columns the maximum working pH range is 7.8 and peak tailing has always been a problem. When developing separations on CE the pH will have a dramatic effect on peak shape and elution order. The effective range over which pH can be varied is much greater with CE versus HPLC.