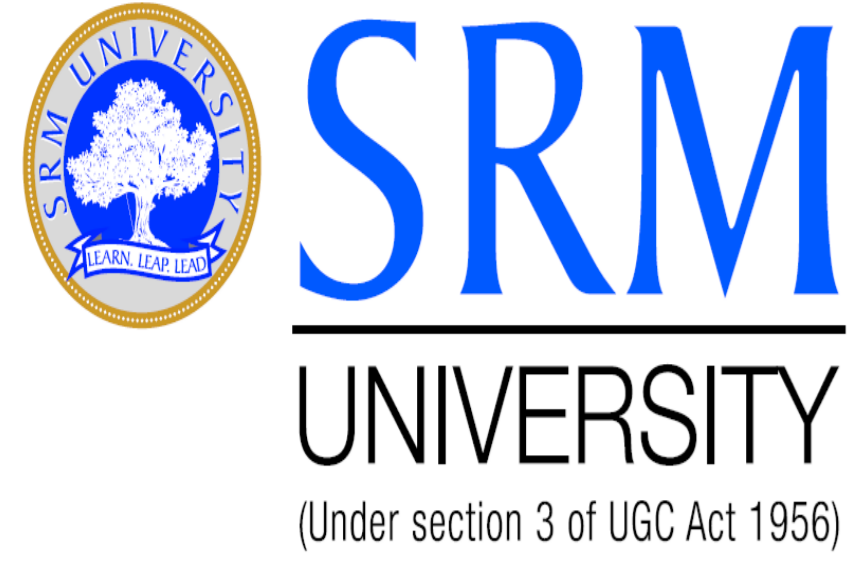


HPTLC METHOD FOR SIMULTANEOUS ESTIMATION OF ANTIHYPERTENSIVE DRUGS



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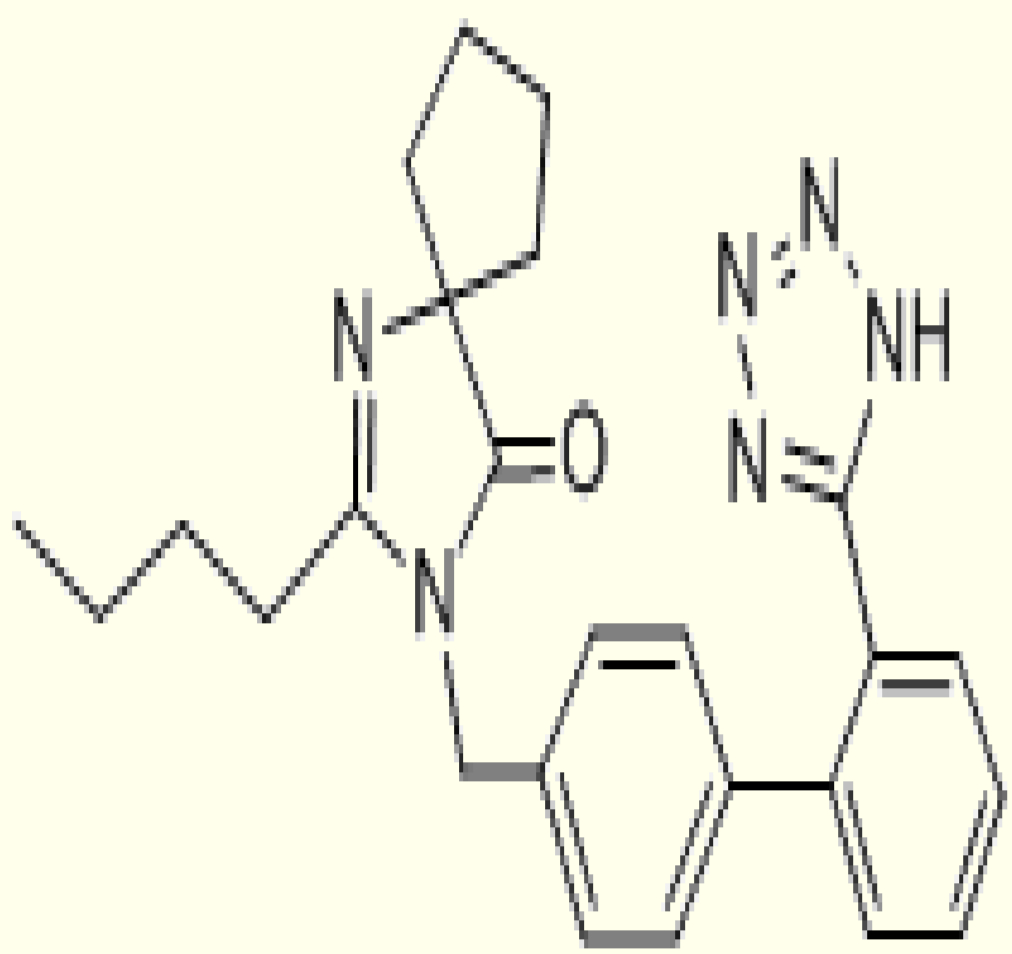


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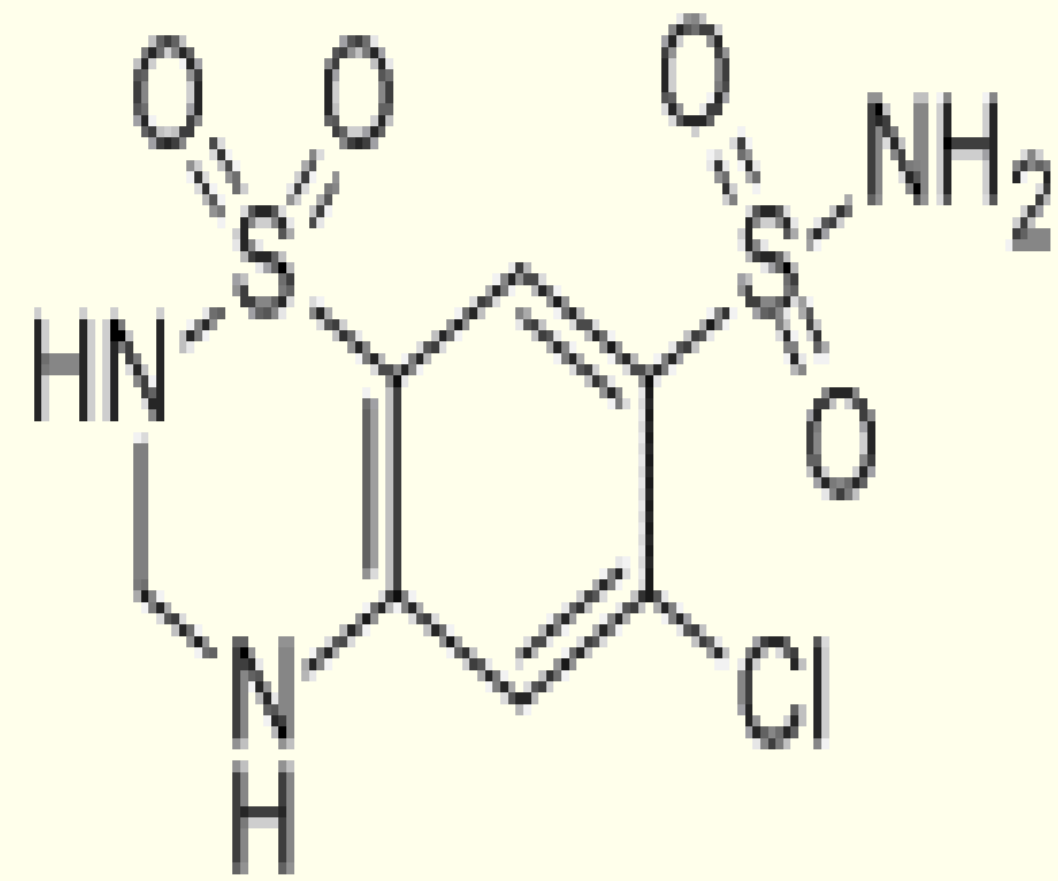
ABSTRACT

A simple and versatile HPTLC method was developed and validated for the simultaneous analysis of Irbesartan, Telmisartan, Ramipril and Hydrochlorothiazide in bulk and tablets. Chromatography was performed on 20 x 20 cm aluminium backed plates coated with 0.2mm layers of silica gel 60 F₂₅₄. The drugs were satisfactorily resolved with the mobile phase mixture consisting acetonitrile : toluene : methanol : formic acid in the ratio of 8:10:2:0.6 v/v/v/v with R_f values of 0.35, 0.42, 0.54 and 0.60 respectively. The accuracy and repeatability of the method was ascertained by evaluating various validation parameters like linearity, precision, accuracy and specificity as per ICH guidelines.

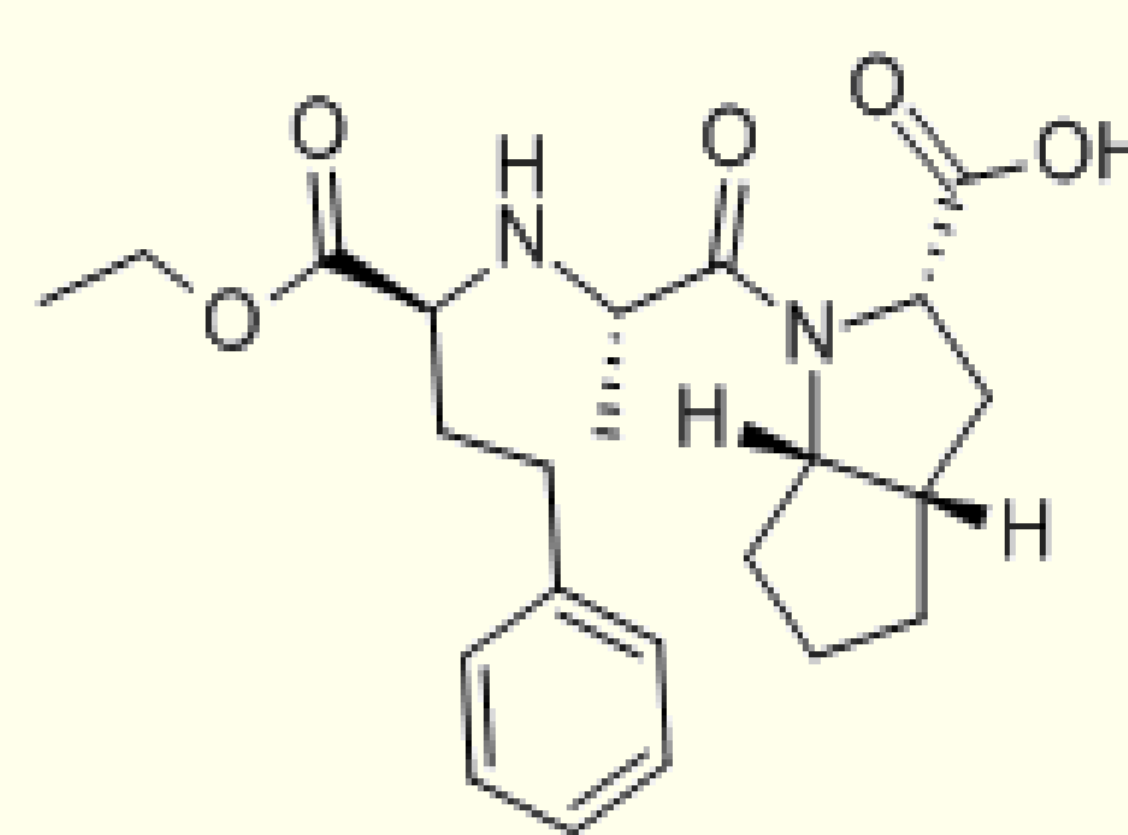
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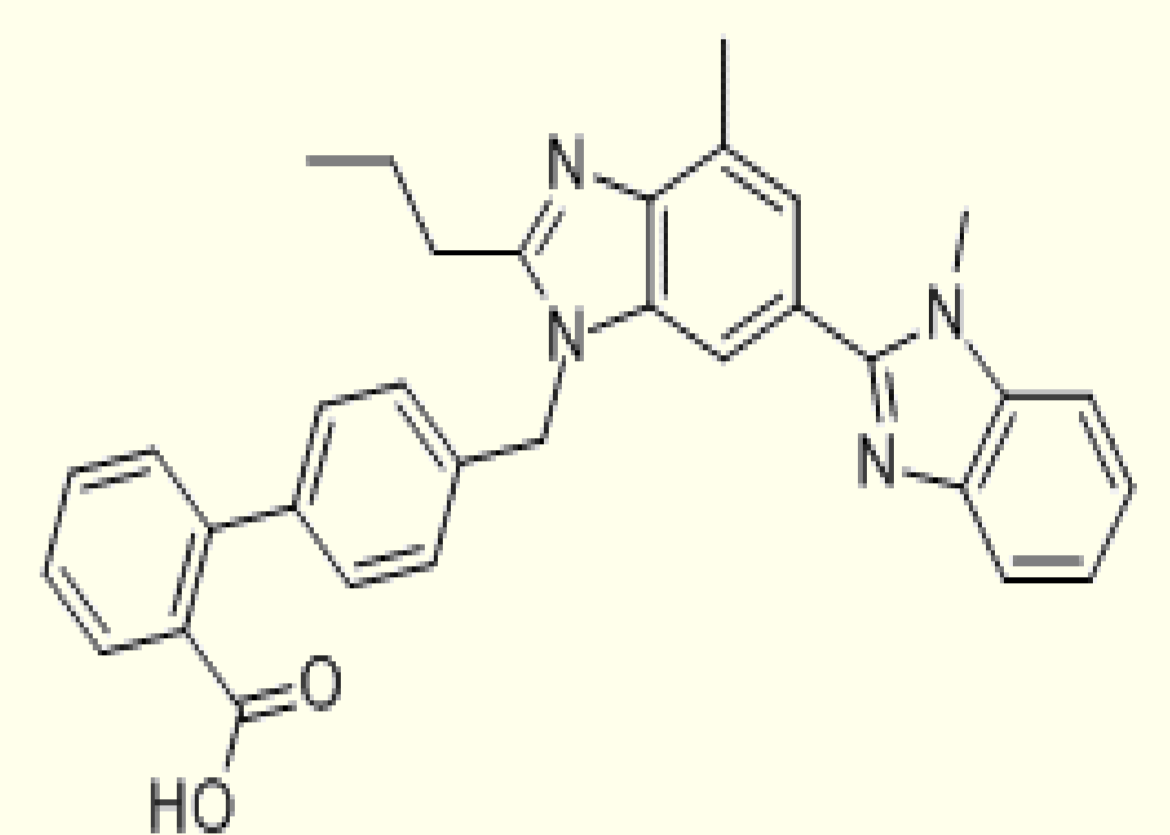
HYDROCHLOROTHIAZIDE



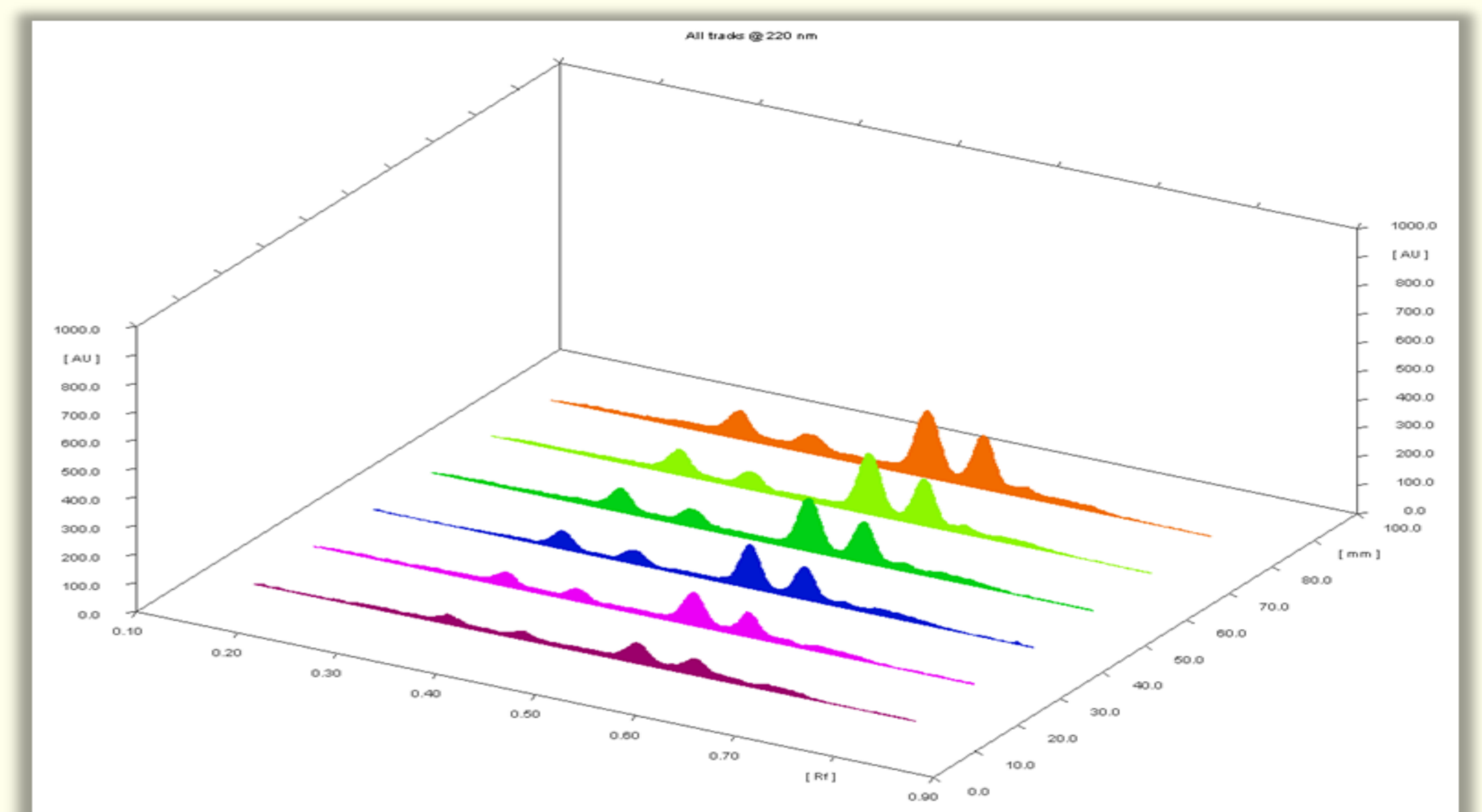
RAMIPRIL



TELMISARTAN

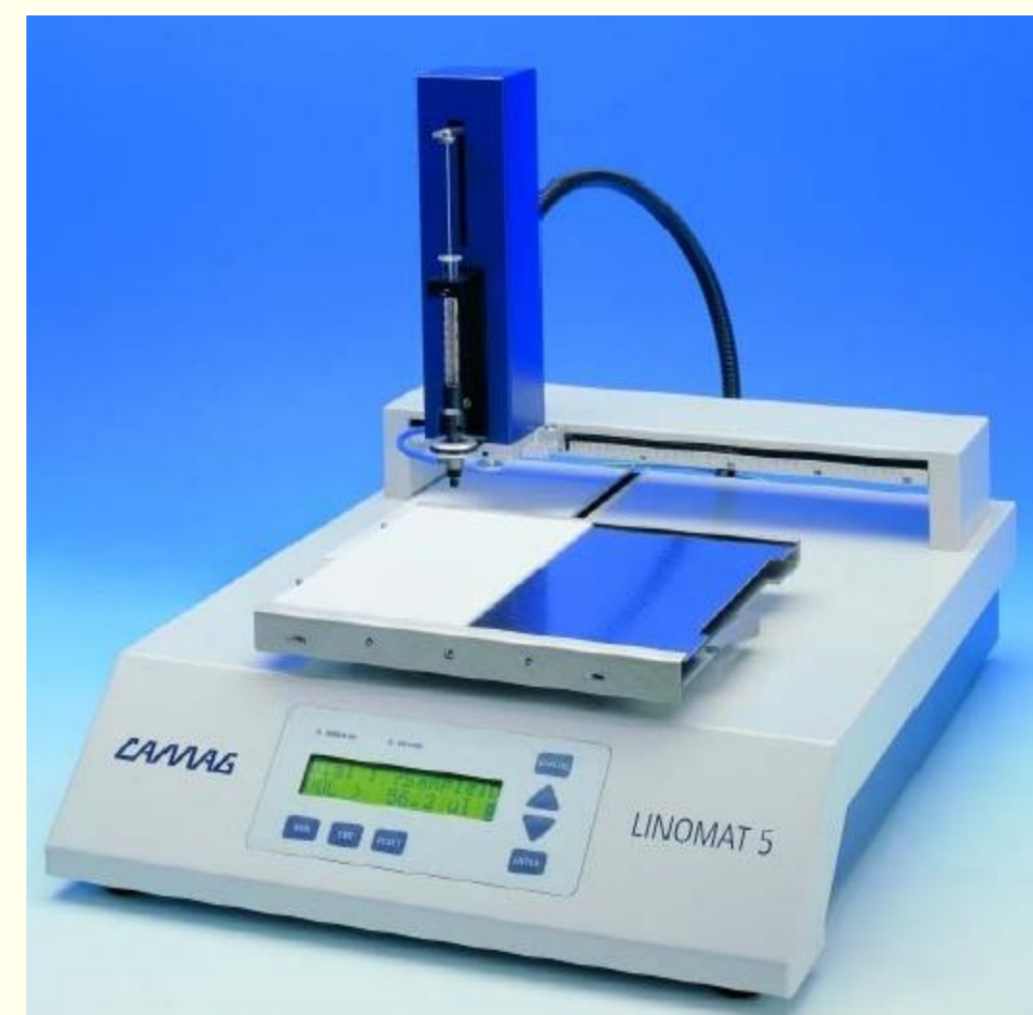


DENSITOGRAM



CHROMATOGRAPHIC CONDITIONS

Instrument used:
CAMAG Linomat V TLC applicator



Software:
Win CATS

Stationary Phase:
 Aluminium plates coated with silica gel G 60 F 254



Chamber:
Twin trough

Detector:
UV-VISIBLE

Detection wavelength: **210nm**



Mobile phase:
Acetonitrile: Toluene: methanol: formic acid in the ratio 8:10:2:0.6 v/v/v/v

RESULTS & DISCUSSION

Parameters	Results			
	Ramipril	Telmisartan	Hydrochlorothiazide	Irbesartan
R _f	0.35	0.42	0.54	0.60
Linearity Range (ng/spot)	250 - 1250	250 - 1250	500 - 1500	250 - 1250
Correlation coefficient	0.9992	0.9991	0.9991	0.9990
Slope	510.85	394.11	1200.7	800.14
Intercept	51.568	25.279	93.564	96.021
Precision (%RSD)	0.21	0.04	0.08	0.09
Assay (%purity)	101.20	100.35	100.56	100.28
% Recovery	100.08	99.98	98.85	99.28

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