

ABBREVIATIONS

Techniques:

HPLC	:	High performance liquid chromatography
FIA	:	Flow injection analysis
GC	:	Gas chromatography
UV	:	Ultra violet
CT	:	Charge transfer

Drugs:

DFS	:	Diclofenac sodium
DLZ	:	Diltiazem hydrochloride
FMD	:	Famotidine
KTR	:	Ketorolac tromethamine

Reagents:

AO	:	Acridine orange
APS	:	Ammonium persulfate
AM	:	Ammonium hydroxide
BCG	:	Bromo cresol green
BCP	:	Bromo cresol purple
BPB	:	Bromo phenol blue
BPN	:	2,2'-Bipyridine
BTB	:	Bromo thymol blue
BF	:	Basic fuchsin
CA	:	Cupric acetate
CAS	:	Ceric ammonium sulphate
CLN	:	Chloranil
CTC	:	Cobalt thiocyanate
CTR	:	Cetrimide

DDQ	:	2,3-Dichloro 5,6-dicyano 1,4-benzoquinone
DCNP	:	2,4-Dichloro-6-nitrophenol
DBH	:	Dibromo dimethyl hydantoin
DAB	:	Dimethyl amino benzaldehyde
DSS	:	Diocetyl sodium sulphosuccinate
EBT	:	Eriochrome black T
EY	:	Eosine yellow
ERY	:	Erythrosine yellow
FCL	:	Ferric chloride
HXL	:	Hydroxylamine hydrochloride
I ₂	:	Iodine
ITC	:	Iron thiocyanate
MTO	:	Methyl orange
MTC	:	Mercuric thiocyanate
MB	:	Methylene blue
NBS	:	N-Bromosuccinimide
PBT	:	Potassium bromate
PCA	:	Picric acid
SDB	:	Solochrome dark blue
SF	:	Safranine
SN	:	Sodium nitrite
SNP	:	Sodium nitroprusside
SHB	:	Sodium hypobromite
SLS	:	Sodium lauryl sulphate
TPO	:	Tropaeolin OO
TB	:	Toluidine blue

Details of the analytical methods developed

I. DICLOFENAC SODIUM

Code no.	Technique	Reagent used	λ max (nm)	Linearity range $\mu\text{g.ml}^{-1}$	Reaction used
A- 1	Spectrophotometric	CAS	450	2-16	OXIDATION
A- 2	"	DBH	385	40-400	"
A- 3	"	NBS	385	50-500	"
A- 4	"	PBT	495	50-600	"
A- 5	"	APS-DAB	450	2-12	OXIDATIVE COUPLING
A- 6	"	SHB-CTR	460	15-140	"
A- 7	"	FCL-BPN	520	10-80	REDOX
A- 8	"	AO	470	2-15	ION-PAIR COMPLEX
A- 9	"	BF	556	2-18	"
A-10	"	MB	640	3-20	"
A-11	"	SF	515	3-17	"
A-12	"	TB	630	3-30	"
A-13	"	DDQ	460	15-120	CT COMPLEX
A-14	"	DCNP	425	10-100	"
A-15	"	I ₂	360	2-20	"
A-16	FIA	DCNP	450	5-50	CT COMPLEX
A-17	HPLC	—	254	10-100	—

II. DILTIAZEM HCl

Code no.	Technique	Reagent used	λ_{\max} (nm)	Linearity range $\mu\text{g.ml}^{-1}$	Reaction used
B- 1	Spectrophotometric	DBH	386	30-320	OXIDATION
B- 2	"	NBS	386	40-450	"
B- 3	"	BCG	410	3-25	ION PAIR COMPLEX
B- 4	"	BCP	405	2-20	"
B- 5	"	BPB	410	3-25	"
B- 6	"	BTB	410	3-25	"
B- 7	"	EBT	510	4-40	"
B- 8	"	MTO	420	5-50	"
B- 9	"	PCA	404	5-50	"
B-10	"	SDB	530	5-30	"
B-11	"	TPO	410	5-40	"
B-12	"	CTC	630	60-600	METAL COMPLEX
B-13	"	ITC	495	10-100	"
B-14	"	HXL-FCL	500	50-500	METAL COMPLEX
B-15	FIA	MTC	460	5-50	METAL COMPLEX
B-16	HPLC	—	240	10-50	—
B-17	Fluorimetric	EY	365,515	5-50	ION PAIR COMPLEX
B-18	"	ERY	365,515	5-50	"
B-19	Titrimetric	SLS	-	-	ANIONIC-CATIONIC TITRATION
B-20	"	DSS	-	-	"

III. FAMOTIDINE

Codeno.	Technique	Reagent used	λ max (nm)	Linearity range $\mu\text{g.ml}^{-1}$	Reaction used
C- 1	Spectrophotometric	DBH	386	12-125	OXIDATION
C- 2	"	NBS	386	14-125	"
C- 3	"	SN-AM	440	50-500	"
C- 4	"	SNP	498	50-500	REDOX
C- 5	"	CLN	458	50-500	CT COMPLEX
C- 6	"	DDQ	460	40-450	"
C- 7	"	DCNP	425	10-100	"
C- 8	"	I ₂	360	2.5-25	"
C- 9	FIA	DCNP	450	10-80	CT COMPLEX
C-10	FIA	CA	314,630	10-50/50-500	METAL COMPLEX
C-11	HPLC	-	254	2-100	—

IV. KETOROLAC TROMETHAMINE

Codeno.	Technique	Reagent used	λ max (nm)	Linearity range $\mu\text{g.ml}^{-1}$	Reaction used
D-1	Spectrophotometric	MB	640	5-50	IONPAIR COMPLEX
D-2	"	SF	515	5-50	"
D-3	"	DDQ	392	10-80	CT COMPLEX
D-4	"	DCNP	425	10-80	"
D-5	FIA	DCNP	450	10-120	CT COMPLEX