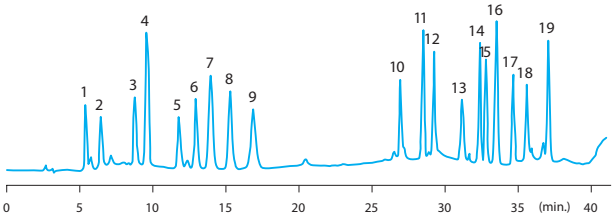
AMINO ACIDS

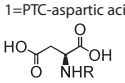
Amino acids, PTC derivatives

18 amino acids as phenylthiocarbamyl (PTC) derivatives. (ref. 7)

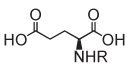


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 200 mm
Temperature: 38°C
Eluent A: 3% ACN in 0.1M sodium acetate
Eluent B: ACN:water (80:20; v:v).

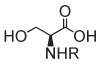
1=PTC-aspartic acid



2= PTC-glutamic acid

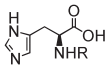


3=PTC-serine

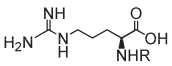


4=PTC-glycine

5=PTC-histidine



6=PTC-arginine

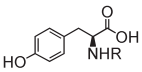


7=PTC-threonine

8=PTC-alanine

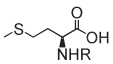
9=PTC-proline

10=PTC-tyrosine

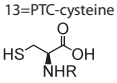


11=PTC-valine

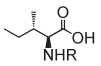
12=PTC-methionine



13=PTC-cysteine

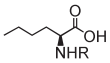


14=PTC-isoleucine

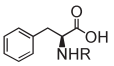


15=PTC-leucine

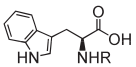
16=PTC-norleucine (I. S.)



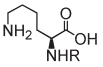
17=PTC-phenylalanine



18=PTC-tryptophan



19=PTC-lysine

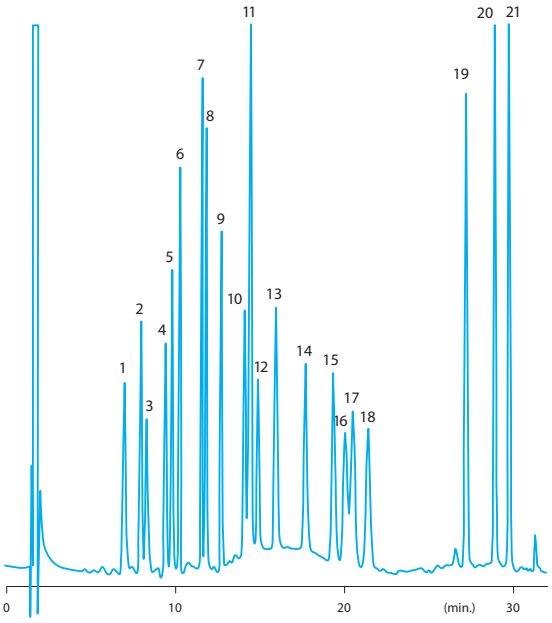


R=PTC derivative group

Gradient: Linear gradient elution. 0 min. 0% B, 13 min. 7% B, 23 min. 23% B, 29 min. 35% B, 35 min. 40% B, 40 min. 100% B, 45 min. 100% B, 47 min. 0% B
Flow rate: 1 ml/min.
Detection: UV 254 nm

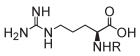
Amino acids, Fmoc-derivatives

Amino-acid analysis for protein and peptide hydrolysates with precolumn Fmoc (9-fluorenyl metylchloroformate) derivatization. (ref. 30)



Phase: Kromasil 100 Å, 5 µm, C8
Column: 4 x 250 mm
Temperature: 45°C
Eluent A: sodium acetate buffer (100 mM, pH 4.4):THF:ACN (75:15:10; v:v:v)
Eluent B: ACN:THF (85:15; v:v).
Gradient: 0 – 2.5 min. 0% B, 2.5 – 6.6 min. 7% B, 6.6 – 8.3 min. 14% B, 8.3 – 8.4 min. 21% B, 8.4 – 10 min. 21% B, 10 – 10.1 min. 17% B, 10.1 – 20 min. 19% B, 20 – 29 min. 55% B, 29 – 30 min. 100% B
Flow rate: 1.5 ml/min.
Detection: UV 263 nm

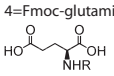
1=Fmoc-arginine



2=Fmoc-serine

3=Fmoc-aspartic acid

4=Fmoc-glutamic acid



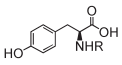
5=Fmoc-threonine

6=Fmoc-glycine

7=Fmoc-alanine

8=Fmoc-proline

9=Fmoc-tyrosine



10=Fmoc-methionine

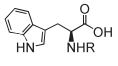
11=Fmoc-OH
R-OH

12=Fmoc-NH 2
R-NH2

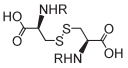
13=Fmoc-valine

14=Fmoc-phenylalanine

15=Fmoc-tryptophane



16=Fmoc-cystine

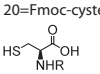


17=Fmoc-isoleucine

18=Fmoc-leucine

19=Fmoc-histidine

20=Fmoc-cysteine



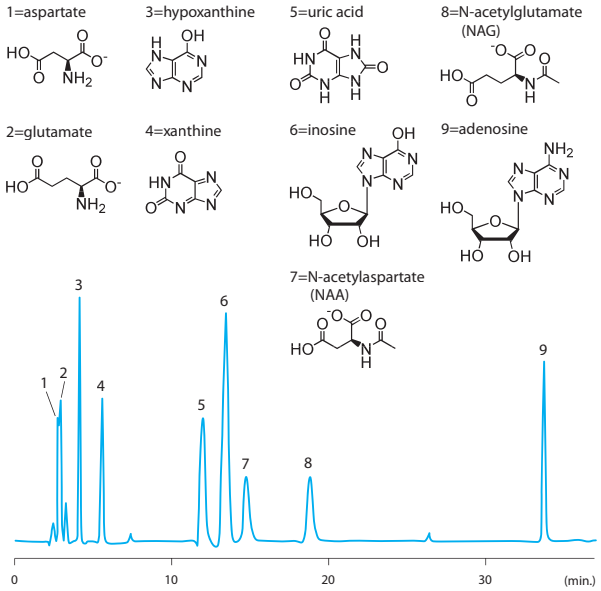
21=Fmoc-lysine

R=Fmoc derivative group

AMINO ACIDS

Amino acids

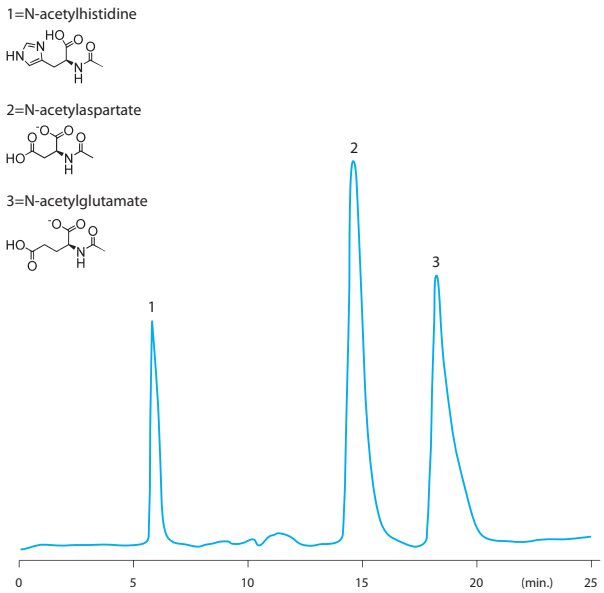
Detection of N-acetylaspartate and N-acetylglutamate in cerebral tissue extracts. (ref. 228)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: 23°C
Eluent: 2.8 mM tetrabutylammonium hydroxide, 25 mM KH_2PO_4, 1.25% MeOH (pH 7)
Flow rate: 1 ml/min.
Detection: UV 210 nm

Amino acids, N-acetylated

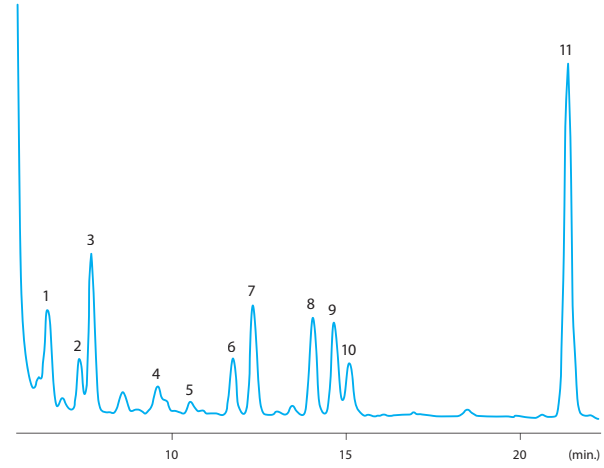
Separation of N-acetylated amino acids. (ref. 348)

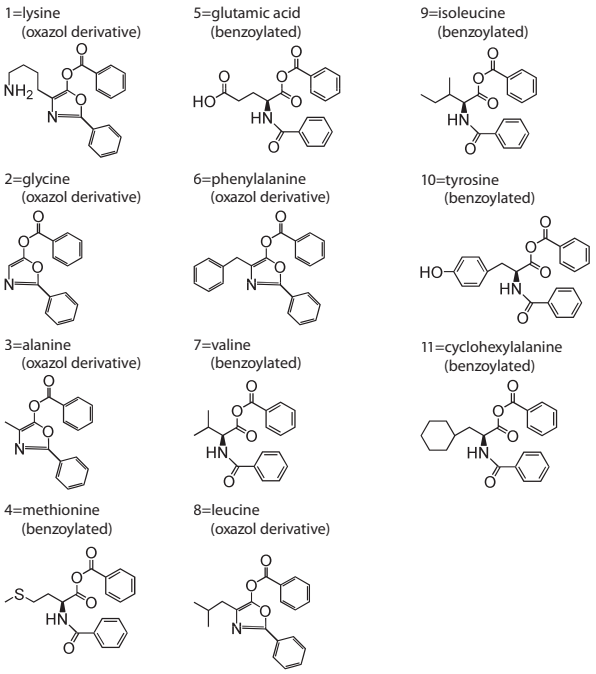


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: 23°C
Eluent: tetrabutylammonuim hydroxide 2.8 mM: KH_2PO_4 25 mM and 1.25% MeOH, pH 7
Flow rate: 1 ml/min.
Detection: UV 210 nm

Amino acids, benzoylated

Analysis of benzoylated amino acids. (ref. 51a)





Phase: Kromasil 100 Å, 5 µm, C18
Column: 4 x 250 mm
Eluent: acetonitrile-water mixtures
Gradient: 70 – 95% ACN in 30 min.
Flow rate: 1 ml/min.
Detection: UV 274 nm

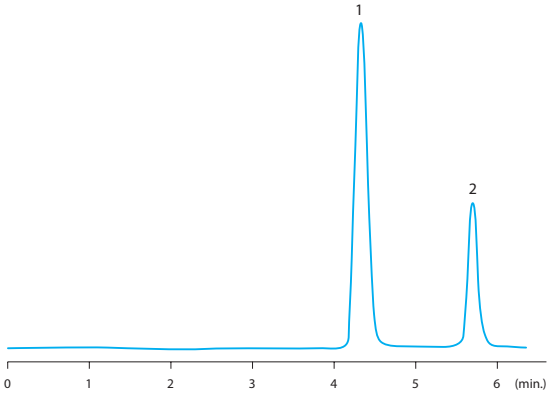
AMINO ACIDS

Aminosalicylic acids

Determination of 5-aminosalicylic acid and 3-aminosalicylic acid. (ref. 279)

1=5-aminosalicylic acid

2=3-aminosalicylic acid

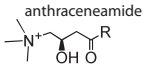


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 200 mm
Eluent: MeOH:phosphate buffer (35:65; v:v)
Flow rate: 1 ml/min.
Detection: UV 254 nm

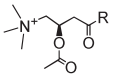
Carnitines, aminoanthracene derivatives

Determination of L-carnitine, acetyl-L-carnitine and propionyl-L-carnitine in human plasma by HPLC with post-column derivatization with 1-aminoanthracene. (ref. 66)

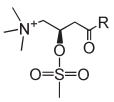
1=L-carnitine 1-amino-anthraceneamide



2=acetyl-L-carnitine 1-aminoanthracene-amide

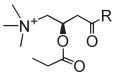


3=methansulfonyl-L-carnitine 1-amino-anthraceneamide

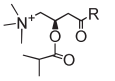


R=1-amino-anthracene group

4=propionyl-L-carnitine 1-aminoanthracene-amide



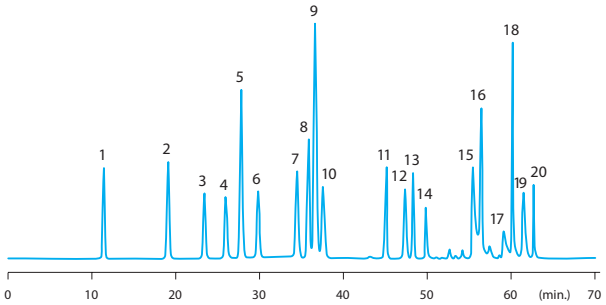
5=isobutyryl-L-carnitine 1-aminoanthracene-amide



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Eluent: ACN:ammonium acetate (0.1 M, pH 3.5) (30:70; v:v)
Flow rate: 1.3 ml/min.
Detection: spectrofluorimetric (λ_{ex} 248 mn, λ_{em} 418 nm)

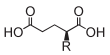
Boronophenylalanine

Determination of boronophenylalanine in biological samples after precolumn derivatization with o-phthalaldehyde (OPA). (ref. 23 7)

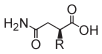


1=OPA-aspartic acid

2=OPA-glutamic acid



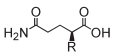
3=OPA-asparagine



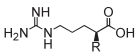
4=OPA-histidine

5=OPA-serine

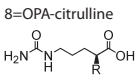
6=OPA-glutamine



7=OPA-arginine



8=OPA-citrulline



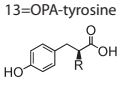
9=OPA-glycine

10=OPA-threonine

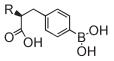
11=OPA- g-aminobuturic acid (GABA)

12=OPA-alanine

13=OPA-tyrosine



14=OPA-p-borono-phenylalanine



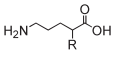
15=OPA-valine

16=OPA-phenylalanine

17=OPA-isoleucine

18=OPA-leucine

19=OPA-ornitine



20=OPA-lysine

R=OPA derivative group

Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: 23°C
Eluent A: 50 mM CH_3COONa (pH 7.4) : 50 mM $NaHPO_4$ (pH 7.4) : MeOH : THF (48:48:2:2; v:v:v:v)
Eluent B: MeOH:water (65:35; v:v).

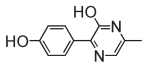
Gradient: 80% A in 3 min, 80% – 70% A in 12 min, 70% – 50% A in 15 min, 50% – 45% A in 10 min, 45% – 20% A in 10 min, 20% – 15% A in 5 min, 15% – 10% A in 3 min, 10% – 0% A in 2 min, 0% A in 15 min.
Flow rate: 1.2 ml/min.
Detection: spectrofluorimetric (λ_{ex} 330 nm, λ_{em} 430 nm)

DRUGS AND METABOLITES

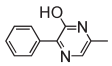
Amoxicillin

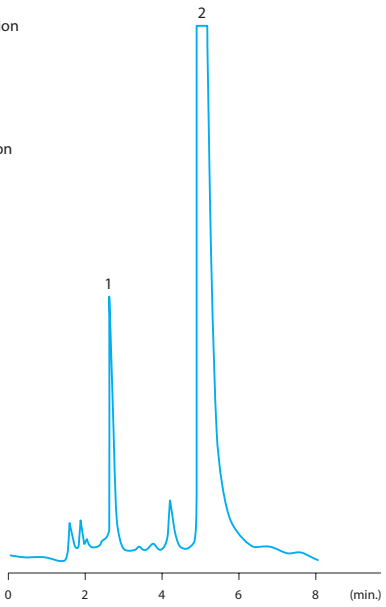
Measurement of amoxicillin in gastric tissue samples. (ref. 6)

1=amoxicillin degradation derivative



2=ampicillin degradation derivative (I. S.)



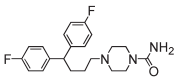


Phase: Kromasil 100 Å, 5 µm, C18
Column: 3.2 x 150 mm
Temperature: 40°C
Eluent: MeOH-water (55:45; v:v)
Flow rate: 0.4 ml/min.
Detection: fluorescence (I_{ex} 365 nm, I_{em} 445 nm)

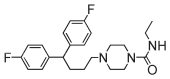
Amperozide

Separation of amperozide, derivate and metabolite. (ref. 45)

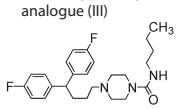
1=amperozide's N-de-ethyl metabolite (II)



2=amperozide (I)



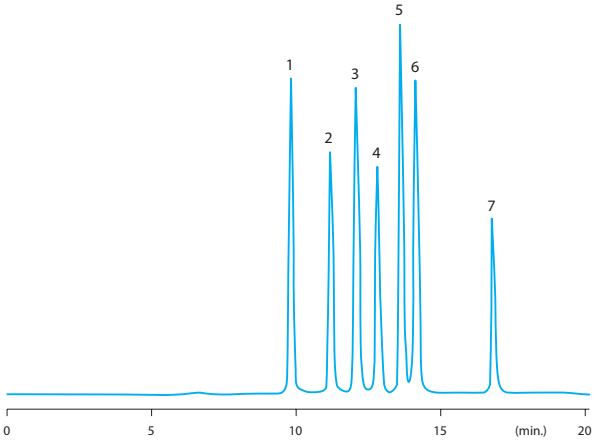
3=amperozide's N-de-ethyl-N-butyl analogue (III)



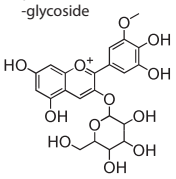
Phase: Kromasil 100 Å, 5 µm, C18
Column: 2.1 x 200 mm
Eluent: MeOH:ammonium phosphate buffer (pH 7.8) (78:22; v:v:)
Flow rate: 0.2 ml/min.
Detection: UV 265 nm

Anthocyanidins

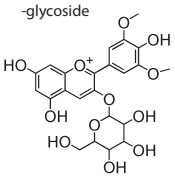
Separation of cyanidin from 3-O- b-glycosylated anthocyanidins. (ref. 347)



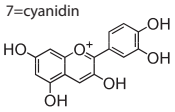
1=petunidin-3-O- b--glycoside



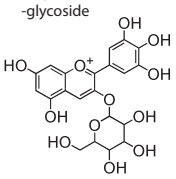
4=malvidin-3-O- b--glycoside



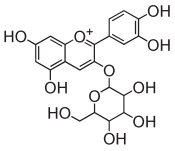
7=cyanidin



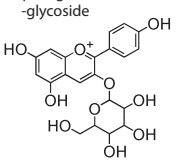
2=delphinidin-3-O- b--glycoside



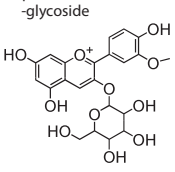
5=cyanidin-3-O- b--glycoside



3=pelargonidin-3-O- b--glycoside



6=peonidin-3-O- b--glycoside



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: 23°C
Eluent A: HCOOH:water (1:10; v:v)
Eluent B: HCOOH:water:MeOH (1:9:10; v:v:v)
Gradient: 0% – 60% A in 5 min., 60% – 45% A in 5 min., 45% – 0% A in 6 min., 0% A in 10 min.

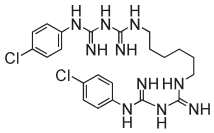
Flow rate: 1.2 ml/min.
Detection: 520 nm

DRUGS AND METABOLITES

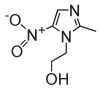
Antibacterial drugs

Determination of metronidazole, clotrimazole and chlorhexidine acetate in Shuangzo effervescent tablets. (ref. 23)

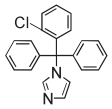
1=chlorhexidine

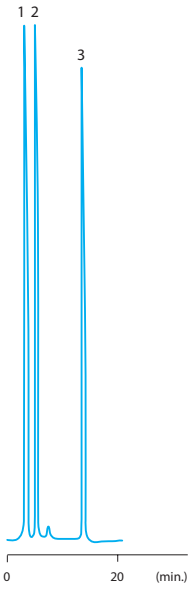


2=metronidazole



3=clotrimazole



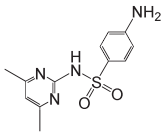


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Eluent: MeOH:buffer (70:30; v:v) (NaAc 24.4 g, HAc 80 ml, $(C_4H_9)NBr$ 4.83 g in 1000 ml water, pH 3.6)
Flow rate: 1 ml/min.
Detection: UV 260 nm

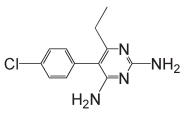
Antibacterial drugs, veterinary

Simultaneous determination of sulfaquinoxaline, sulfamethazine and pyrimethamine. (ref. 246)

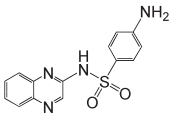
1= sulfamethazine

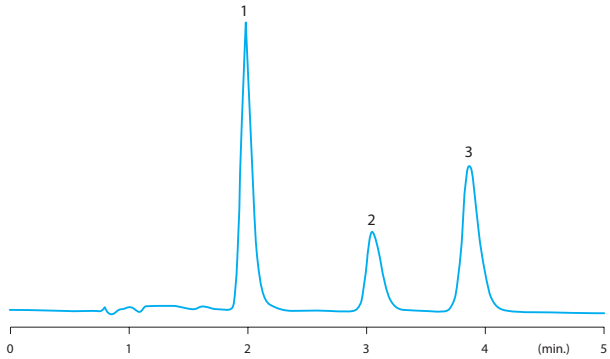


2=pyrimethamine



3= sulfaquinoxaline



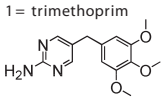


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 150 mm
Eluent: 40 mM phosphate buffer (pH 3 containing 10 mM ClO_4^-) : ACN (65:35; v:v)
Flow rate: 1.5 ml/min.
Detection: UV 270 nm

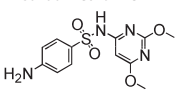
Antibacterials, sulfa drugs

Determination of sulfamethoxypyridazine, sulfamethoxazole, sulfadimethoxine and associated compounds. (ref. 267)

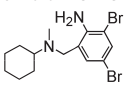
1= trimethoprim



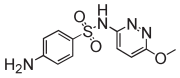
4=sulfadimethoxine



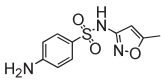
5= bromhexine



2=sulfamethoxypyridazine



3=sulfamethoxazole

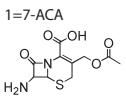


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 150 mm
Eluent: 10 mM citrate buffer (pH 3):MeOH
Gradient: 0 min. 31% MeOH, 4 min. 69% MeOH, 14 min. 69% MeOH, 16 min. 31% MeOH
Flow rate: 1 ml/min.
Detection: UV 255 nm

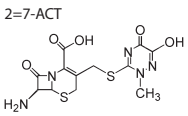
Antibiotics and intermediates

Determination of ceftriaxone, 7-aminocephalosporanic acid (7-ACA) and 7-amino-3-[[(2,5-dihydro-6-hydroxy-2-methyl-5-oxo-1,2,4-trizin-3-yl)- thio]methyl]-cephalosporanic acid (7-ACT). (ref. 129)

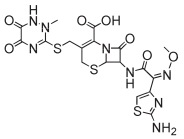
1=7-ACA

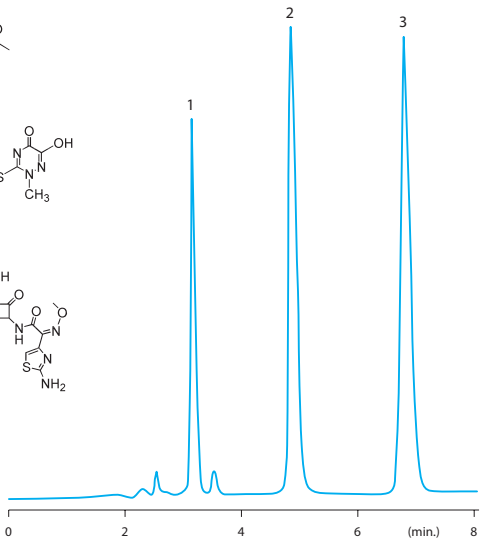


2=7-ACT



3=ceftriaxone



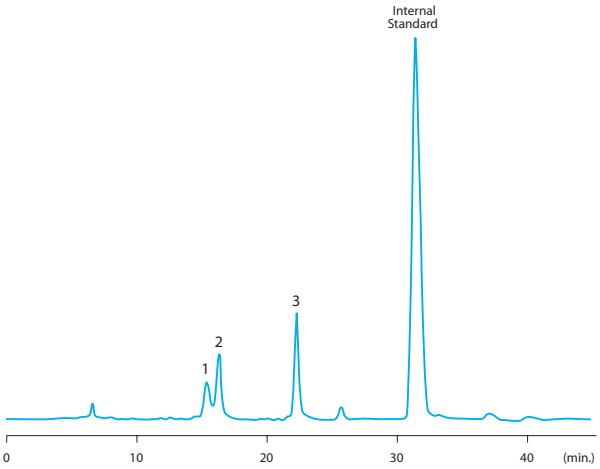


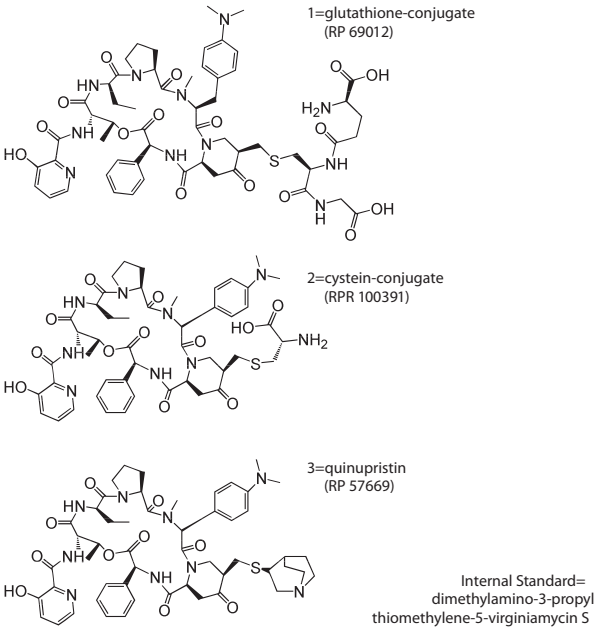
Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 200 mm
Eluent: ACN:tetrabutyl ammonium bromide:phosphate buffer (pH 7):water (32:0.32:4.4:63.6; v:v:v:v)
Flow rate: 1 ml/min.
Detection: UV 270 nm

DRUGS AND METABOLITES

Antibiotics and metabolites

Determination of quinupristin and its main metabolites in human plasma. (ref. 143)



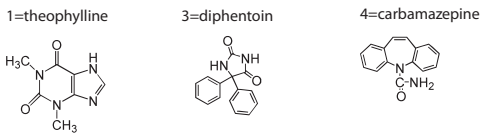


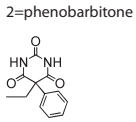
Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 125 mm
Eluent A: 0.8 ml of 70% perchloric acid (PCA) / litre water
Eluent B: ACN
Gradient: 30% B for 11 min., 32% B from 11.1 to 15 min., 40% B from 15.6 to 16 min., 38% B from 16.1 to 34 min., 80% B from 34.1 to 36 min.

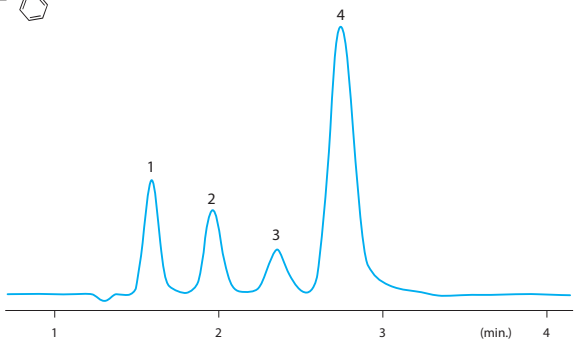
Flow rate: 0 – 11 min: 0.5 ml/min., 11 – 36 min: 1 ml/min.
Detection: fluorescence (λ_{ex} 360 nm and λ_{em} 410 nm)

Anticonvulsants

Determination of theophylline, phenobarbitone, diphentoin and carbamazepine. (ref. 301b)



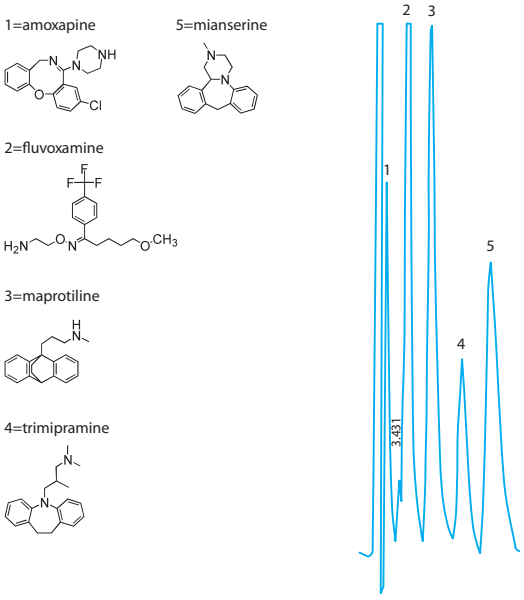




Phase: Kromasil 100 Å, 5 µm, C18
Column: 0.8 x 150 mm
Eluent: MeOH:water (70:30; v:v)
Flow rate: 35 µl/min
Detection: UV 210 nm

Antidepressants

Determination of antidepressant drugs and metabolites. (ref. 49)



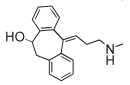
Phase: Kromasil 100 Å, 5 µm, C18
Column: 2.1 x 150 mm
Eluent: ACN:phosphate buffer (40:60; v:v) (pH 6.5)
Flow rate: 0.35 ml/min.
Detection: UV 220 nm

DRUGS AND METABOLITES

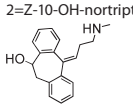
Antidepressants

Analysis of amitriptyline and nortriptyline in plasma. (ref. 58)

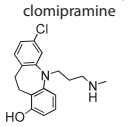
1=E-10-OH-nortriptyline



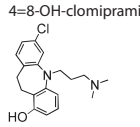
2=Z-10-OH-nortriptyline



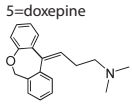
3=8-OH-desmethyl-clomipramine



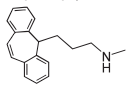
4=8-OH-clomipramine



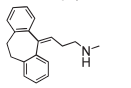
5=doxepine



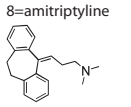
6=protriptyline



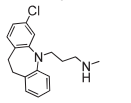
7=nortriptyline



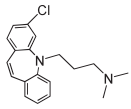
8=amitriptyline

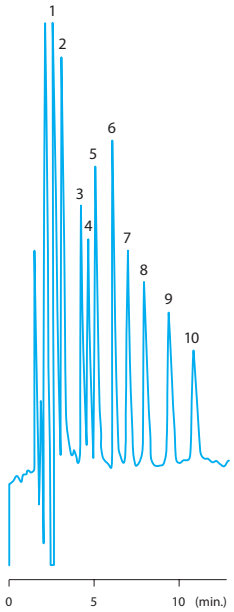


9=desmethyl-clomipramine



10=clomipramine

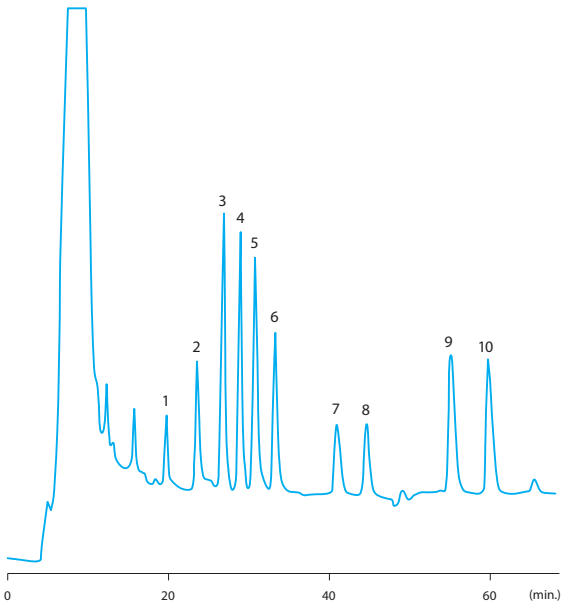




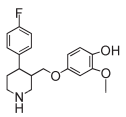
Phase: Kromasil 100 Å, 5 µm, C8
Column: 4 x 250 mm
Temperature: ambient
Eluent: ACN:KH_2PO_4 (0.04 M) (40:60; v:v)
Flow rate: 1 ml/min.
Detection: UV 240 nm

Antidepressants and metabolites

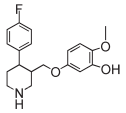
Simultaneous determination of citalopram, fluoxetine, paroxetine and their metabolites in plasma. (ref. 309)



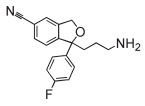
1=(-)-trans-4-(4-fluorophenyl)-3-(4-hydroxy-3-methoxy-phenoxymethyl)piperidine



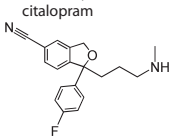
2=(-)-trans-4-(4-fluorophenyl)-3-(3-hydroxy-4-methoxy-phenoxymethyl)piperidine



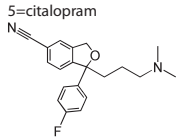
3=didesmethylcitalopram



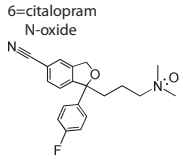
4=desmethyl-citalopram



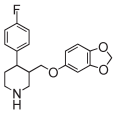
5=citalopram



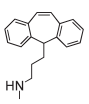
6=citalopram N-oxide



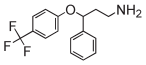
7=paroxetine



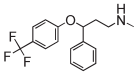
8=protriptyline



9=norfluoxetine



10=fluoxetine

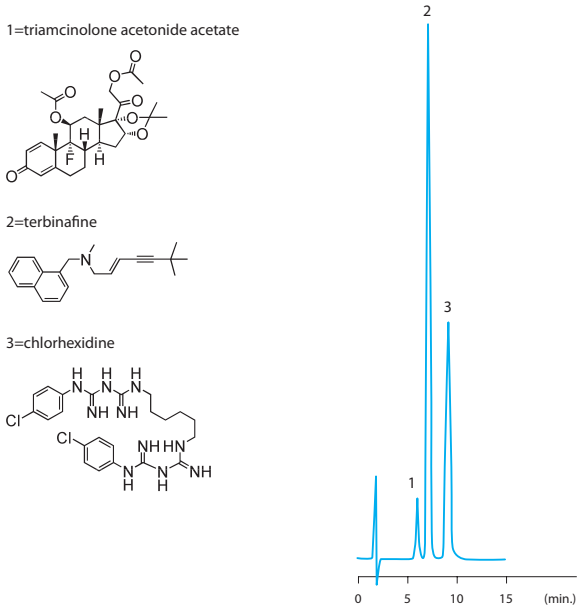


Phase: Kromasil 100 Å, 3.5 µm, C18
Column: 0.32 x 300 mm
Temperature: gradient: 35°C (3 min.) prior to ramp of 1.3°C/min. to 100°C (10 min.)
Eluent: ACN:NH_4HCOO (45 mM, pH 4) (25:75; v:v)
Flow rate: 5 µl/min
Detection: UV 230 nm

DRUGS AND METABOLITES

Antifungals

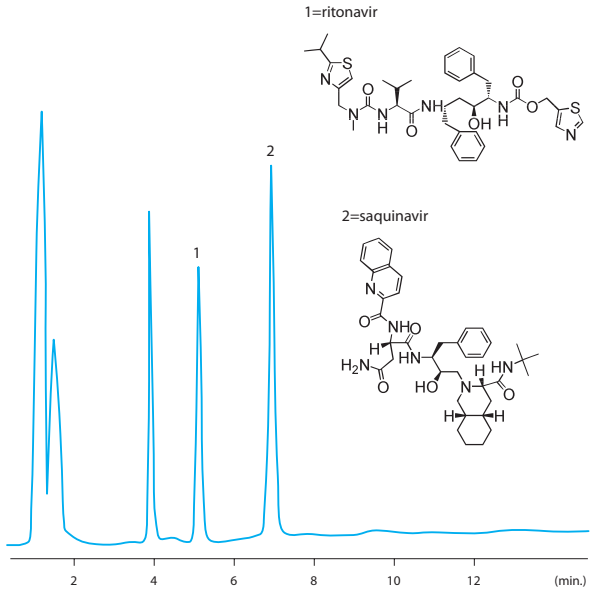
Determination of terbinafine hydrochloride, chlorhexidine and triamcinolone acetonide acetate. (ref. 110)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 200 mm
Eluent: 0.3% sodium heptanesulphonate in MeOH:water (73:27; v:v), pH 3.2
Flow rate: 1 ml/min.
Detection: UV 248 nm

Anti-HIV

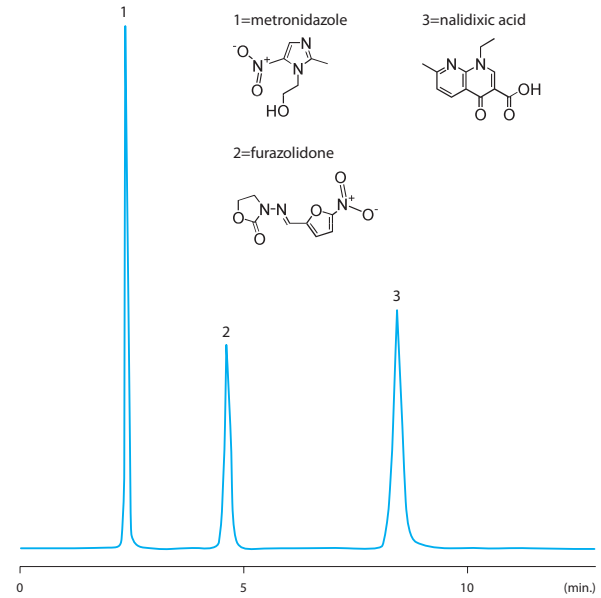
Simultaneous determination of ritonavir and saquinavir. (ref. 126)



Phase: Kromasil 100 Å, 5 µm, C8
Column: 4.6 x 150 mm
Eluent: ACN : 5 mM potassium phosphate monobasic buffer, pH 8 (55:45; v:v)
Flow rate: 1 ml/min.
Detection: UV 240 nm

Antimicrobials

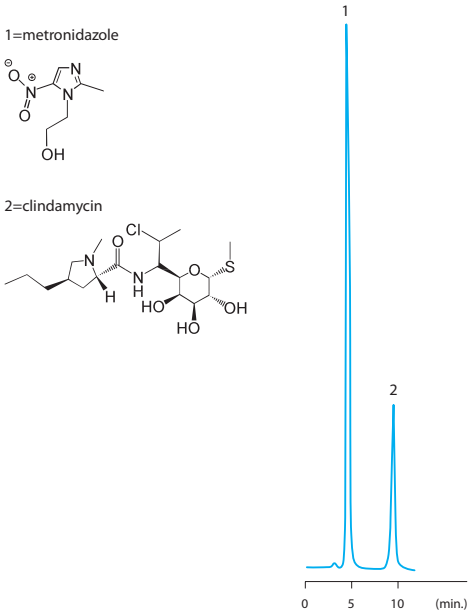
Determination of metronidazole and nalidixic acid. (ref. 156)



Phase: Kromasil 100 Å, 5 µm, C8
Column: 4.6 x 250 mm
Temperature: 20°C ± 1°C
Eluent: ACN:0.2% triethylamine (pH 3.5) (35:65; v:v)
Flow rate: 1.5 ml/min.
Detection: UV 320 nm

Antimicrobials

Determination of metronidazole and clindamycin. (ref. 268)



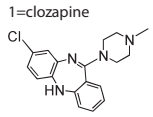
Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Eluent: Potassium dihydrogen phosphate (pH 3.8, 0.05 M):ACN (79:21; v:v)
Flow rate: 1 ml/min.
Detection: UV 210 nm

DRUGS AND METABOLITES

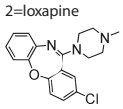
Antipsychotics

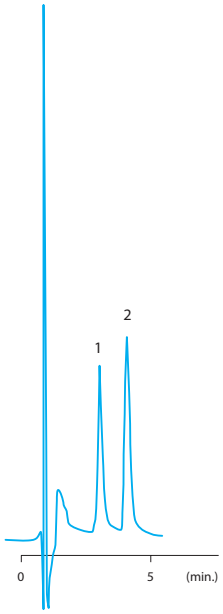
Determination of clozapine and loxapine. (ref. 64)

1=clozapine



2=loxapine



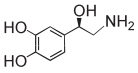


Phase: Kromasil 100 Å, 5 µm, C8
Column: 4.6 x 150 mm
Temperature: 31°C
Eluent: ACN:water (70:30; v:v) 25 mg ammonium acetate /100 ml mobile phase
Flow rate: 1.4 ml/min.
Detection: UV 210 nm

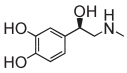
Catecholamines

Determination of catecholamines in pig liver. (ref. 95a)

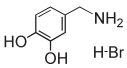
1=norepinephrine



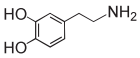
2=epinephrine

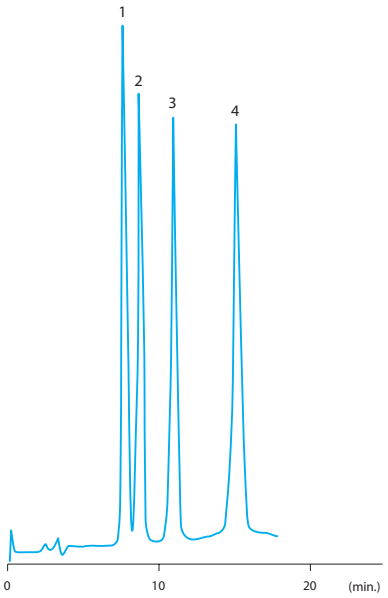


3=3-4-dihydroxy-benzylamine hydrobromide



4=dopamine



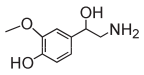


Phase: Kromasil 100 Å, 5 µm, C8
Column: 4.6 x 150 mm
Eluent: 300 ml MeOH + 1.5 ml 1-octanesulfonic acid (200 mg/ml) + 100 ml 1 M NaAc + about 1 litre water (pH 3.8). Volume adjusted to 2 litres with water.
Flow rate: 0.6 ml/min.
Detection: electrochemical potential +0.65 V

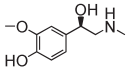
Catecholamines

Determination of methoxycatecholamines in pig liver. (ref. 95b)

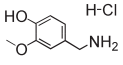
1=normetanephrine



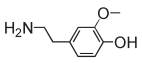
2=metanephrine

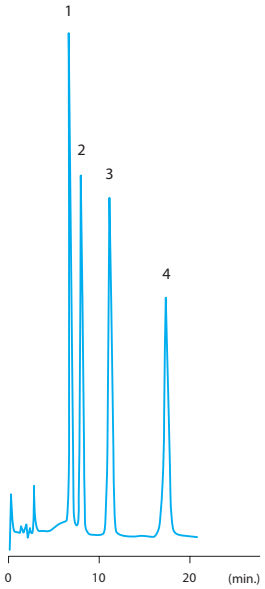


3=4-hydroxy-3-methoxy-benzylamine hydrochloride



4=3-O-methyldopamine



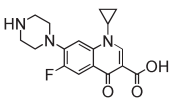


Phase: Kromasil 100 Å, 5 µm, C8
Column: 4.6 x 150 mm
Eluent: 300 ml MeOH + 1.5 ml 1-octanesulfonic acid (200 mg/ml) + 100 ml 1 M NaAc + about 1 litre water (pH 3.8). Volume adjusted to 2 litres with water.
Flow rate: 1.1 ml/min.
Detection: electrochemical potential +0.8 V

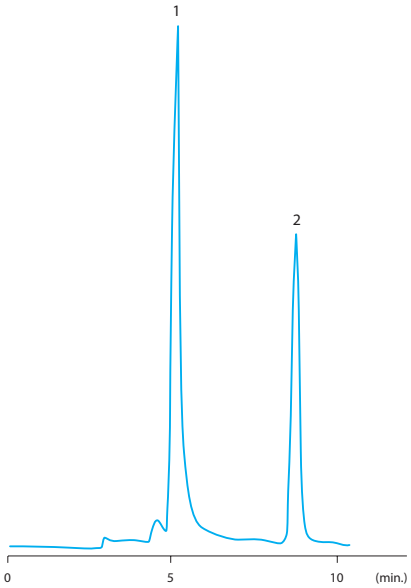
Ciprofloxacin

Determination of ciprofloxacin in pharmaceutical preparations and biological fluids. (ref. 26)

1=ciprofloxacin



2=anthranilic acid



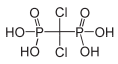
Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: ambient
Eluent: ACN:MeOH:acetate buffer (pH 3.6; 50 mM) (10:30:60; v:v:v) containing 1% v/v HAc
Flow rate: 0.8 ml/min.
Detection: fluorescence (λ_{ex} 300 nm, λ_{em} 458 nm)

DRUGS AND METABOLITES

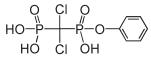
Clodronate

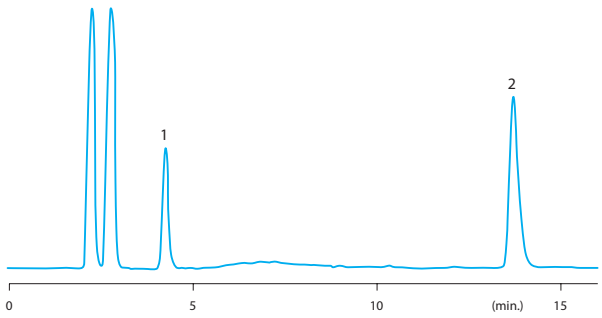
Simultaneous determination of clodronate and its partial ester derivative. (ref. 97)

1=clodronate



2=clodronate monophenylester



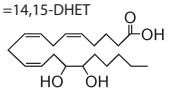


Phase: Kromasil 100 Å, 5 µm, C8
Column: 4.6 x 250 mm
Eluent: MeOH:ammonium acetate buffer (0.1 M + 0.23 M butylamine, pH 4.6)
Gradient: linear gradient elution: methanol from 3 to 40 – 60% for between 1.0 and 6.0 min. (not specified)
Flow rate: 1.2 ml/min.
Detection: ELS

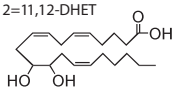
Cytochrome P450 metabolites

Analysis of cytochrome P450 metabolites of arachidonic acid. (ref. 10)

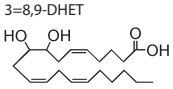
1=14,15-DHET



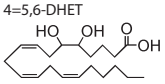
2=11,12-DHET



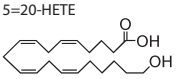
3=8,9-DHET



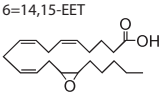
4=5,6-DHET



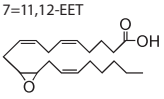
5=20-HETE



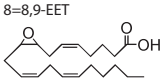
6=14,15-EET



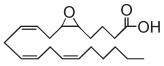
7=11,12-EET



8=8,9-EET



9=5,6-EET



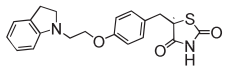
DHET=dihydroxy-eicosatrienoic acids
HETE=hydroxy-eicosatetraenoic acids
EET=epoxy-eicosatrienoic acids

Phase: Kromasil 100 Å, 5 µm, C18
Column: 2 x 250 mm
Eluent: water/ACN with 0.005% HAc
Gradient: 0 min. 60% ACN, 30 min. 80% ACN, 35 min. 100% ACN 40 min. 100% ACN
Flow rate: 0.2 ml/min.
Detection: ESI-MS

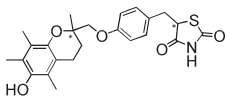
DRF-2189

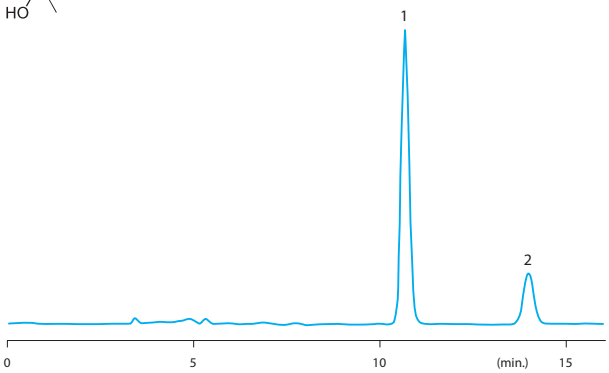
Determination of the insulin sensitizing agent DRF-2189 in rat plasma. (ref. 161)

1=insulin sensitizing agent DRF-2189



2=troglitazone



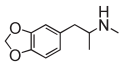


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Eluent: 0.05 M NaH_2PO_4:ACN:MeOH (22.5:37.5:40; v:v:v) (pH 5.0)
Flow rate: 1 ml/min.
Detection: fluorescence (I_{ex} 292 nm and I_{em} 325 nm)

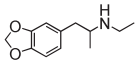
Ecstacy analogues

Identification of a homologue derivative of "ecstasy". (ref. 170)

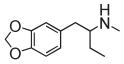
1=N-methyl-1-(1,3-benzodioxol-5-yl)-2-propanamine (MDMA)



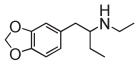
2=N-ethyl-1-(1,3-benzodioxol-5-yl)-2-propanamine (MDEA)

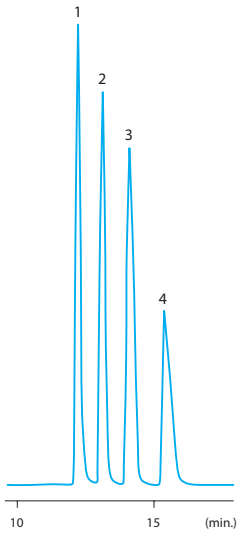


3=N-methyl-1-(1,3-benzodioxol-5-yl)-2-butanamine (MBDB)



4=N-ethyl-1-(1,3-benzodioxol-5-yl)-2-butanamine (EBDB)



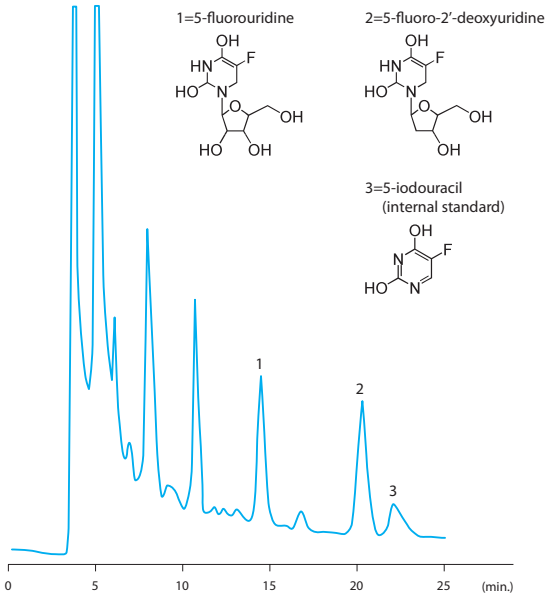


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: ambient
Eluent: ACN:0.1 M triethylammonium acetate (aq) pH 7.3
Gradient: 5% to 80% ACN in 25 min.
Flow rate: 1 ml/min.
Detection: UV 280 nm

DRUGS AND METABOLITES

5-fluorouracil metabolites

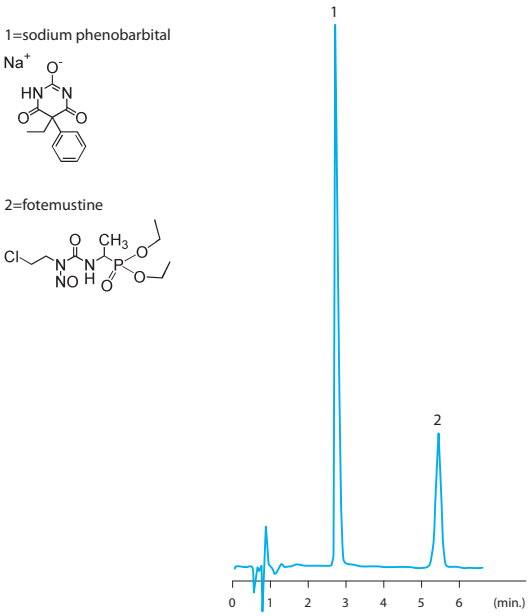
Determination of the main metabolites of 5-fluorouracil in plasma. (ref. 116)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 150 mm
Temperature: 20°C (ambient)
Eluent: MeOH:water (3:97; v:v)
Flow rate: 0.6 ml/min.
Detection: UV 275 nm

Fotemustine

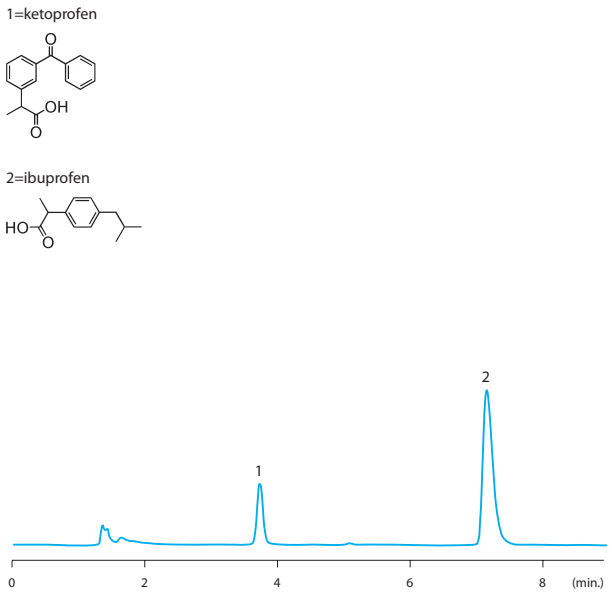
Stability study of fotemustine in PVC infusion bags. (ref. 124)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 150 mm
Temperature: ambient
Eluent: ACN:ammonium acetate buffer (0.05 M, pH 4.5) (30:70; v:v)
Flow rate: 1 ml/min.
Detection: UV 230 nm

Ketoprofen

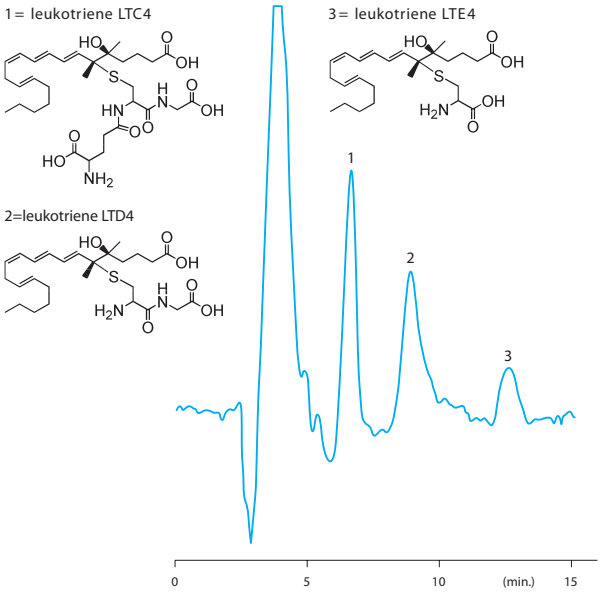
Determination of ketoprofen in vitro in rat skin. (ref. 247)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4 x 250 mm
Temperature: 40°C
Eluent: ACN:0.01 M potassium phosphate (pH 1.5) (60:40; v:v)
Flow rate: 1 ml/min.
Detection: UV 260 nm

Leukotrienes, cross-reactive

Determination of cross-reactive leukotrienes in biological matrices. (ref. 71a)

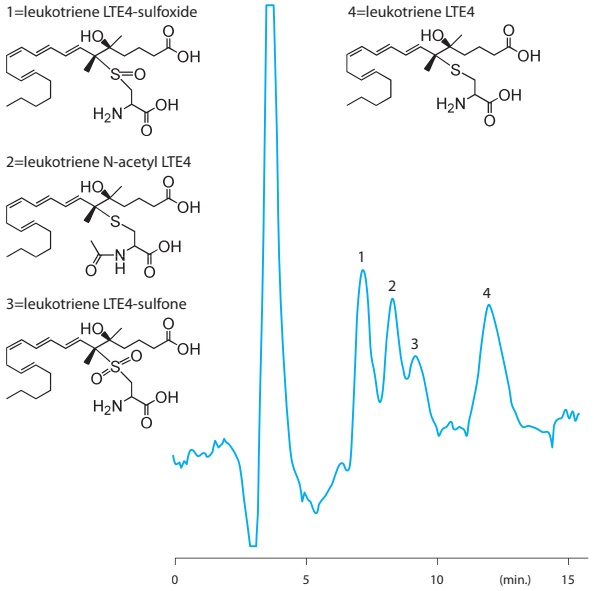


Phase: Kromasil 100 Å, 5 µm, C4
Column: 2.1 x 100 mm
Eluent: ACN:K_2HPO_4 10 mM (pH 7.4) (30:70; v:v)
Flow rate: 0.2 ml/min.
Detection: fluorescence (I_{ex} 544 nm, I_{em} 572 nm)

DRUGS AND METABOLITES

Leukotrienes, cross-reactive

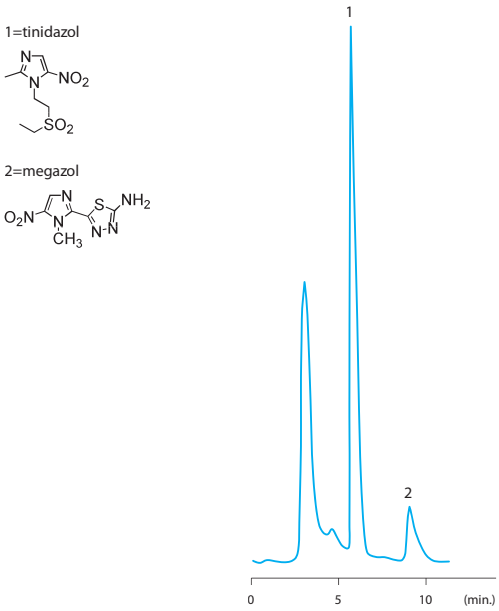
Determination of cross-reactive leukotrienes in biological matrices. (ref. 71b)



Phase: Kromasil 100 Å, 5 µm, C4
Column: 2.1 ¥ 100 mm
Eluent: ACN:K_2HPO_4 10 mM (pH 7.4) (30:70; v:v)
Flow rate: 0.2 ml/min.
Detection: fluorescence (λ_{ex} 544 nm, λ_{em} 572 nm)

Megazol

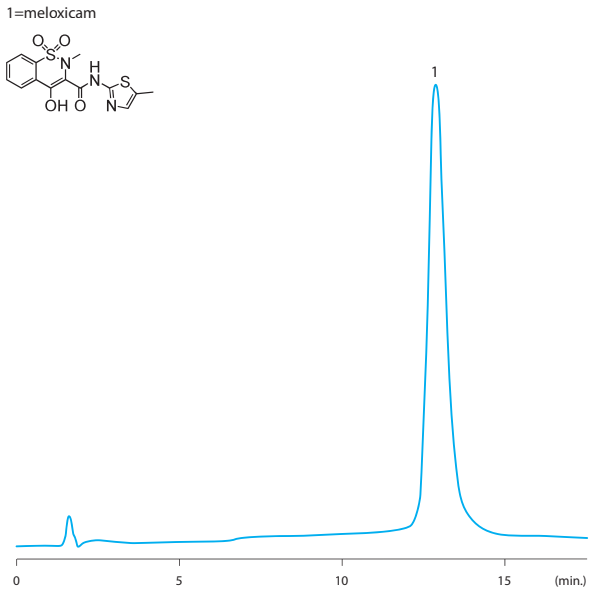
Analysis of megazol in human plasma. (ref. 113)



Phase: Kromasil 100 Å, 10 µm, C8
Column: 4 ¥ 250 mm
Temperature: ambient
Eluent: phosphate buffer (0.068 M, pH 3):MeOH:ACN (65:20:15; v:v:v)
Flow rate: 0.7 ml/min.
Detection: UV 360 nm

Meloxicam

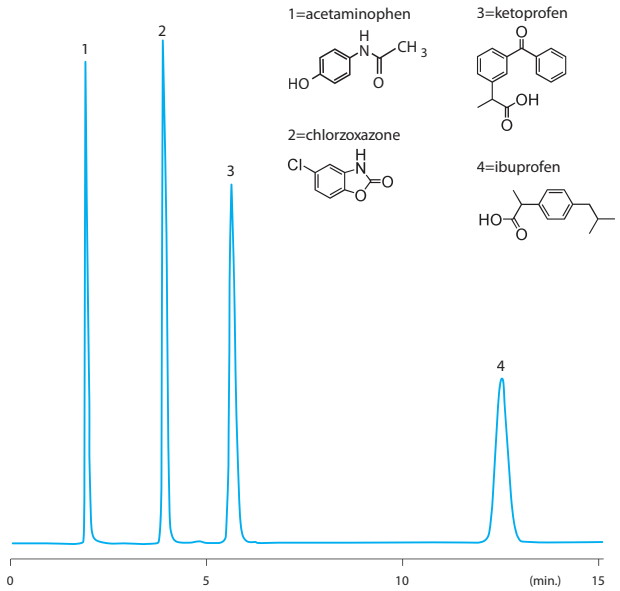
Determination of meloxicam in human plasma. (ref. 283)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 ¥ 150 mm
Eluent: MeOH:water:ACN:HAc (600:500:50:20; v:v:v:v)) + 1.01 g sodium heptanesulfonate
Flow rate: 1 ml/min.
Detection: UV 355 nm

Pain relievers

Determination of acetaminophen, ibuprofen and chlorzoxazone. (ref. 154)



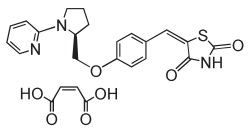
Phase: Kromasil 100 Å, 5 µm, C8
Column: 4.6 ¥ 250 mm
Temperature: 20±1°C
Eluent: ACN:0.2% triethylamine (pH 3.2) (50:50; v:v)
Flow rate: 1.5 ml/min.
Detection: UV 215 nm

DRUGS AND METABOLITES

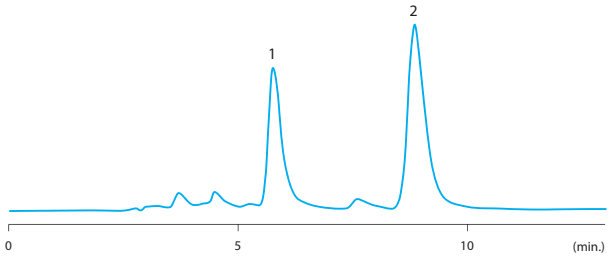
PAT-5A

Determination of PAT-5A (5[4-[N-(20pyridyl)-(2s)-pyrrolidine-2-methoxy]phenylmethylene]-thiazolidine-2,4-dione, maleic acid salt), an insulin sensitizing agent, in rat plasma. (ref. 244)

1=PAT-5A



2=thiazolidinedione

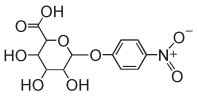


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Eluent: NaH_2PO_4 (0.05 M, pH 4):MeOH (25:75; v:v)
Flow rate: 1 ml/min.
Detection: UV 345 nm

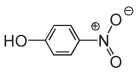
Phenolics

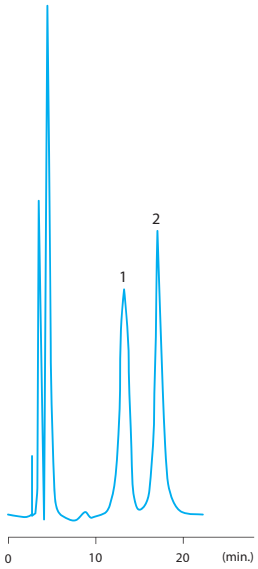
Separation of phenolic compounds and corresponding glucuronides. (ref. 103)

1=4-nitrophenyl- b--D-glucuronide



2=4-nitrophenol



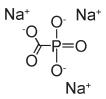


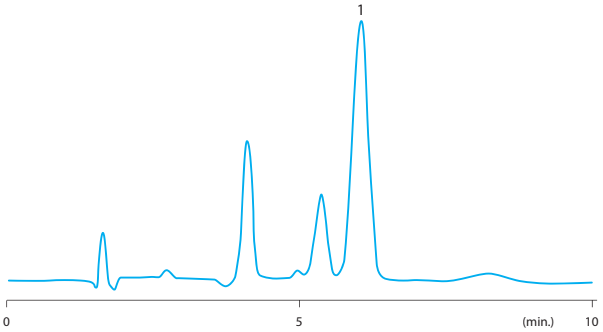
Phase: Kromasil 100 Å, 5 µm, C18
Precolumn: Nucleosil 5µm, C4
Column: 4.6 x 100 mm (precolumn: 4.6 ¥ 50 mm)
Temperature: ambient
Eluent: 30 mM cetyltrimethylammonium bromide in 0.05 M 6-aminohexanoic acid (pH: 5) and 20% ACN (precolumn 7%) (v:v)
Flow rate: 1 ml/min.
Detection: UV 300 nm

Phosphonoformate (foscarnet)

Determination of phosphonoformate (foscarnet) in human serum. (ref. 217)

1=phosphonoformate (foscarnet)



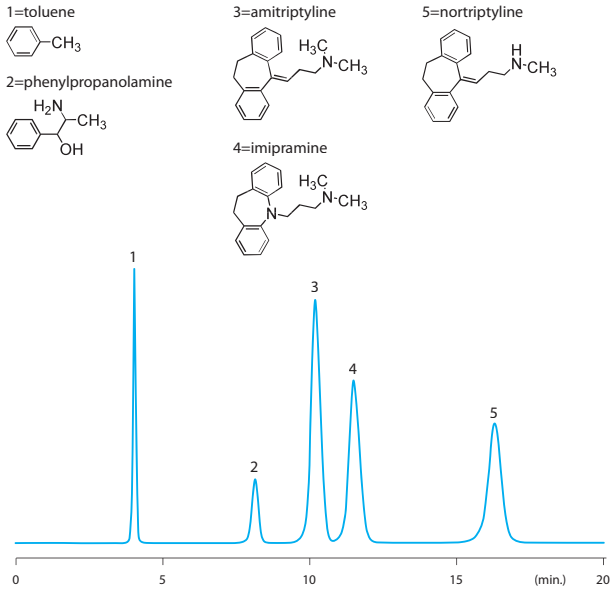


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 150 mm
Eluent: methanol : 40 mM Na_2HPO_4-buffer, pH 7.6 (adjusted with orthophosphoric acid), containing 0.25 mM $THAHSO_4$ (25:75; v:v)
Flow rate: 1 ml/min.
Detection: electrochemical (potential +1.125 V)

DRUGS AND METABOLITES

QC test, tricyclic antidepressants

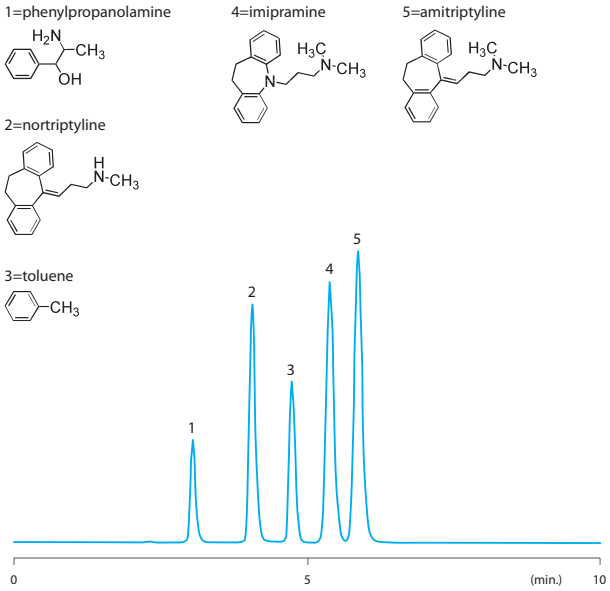
QC test of Kromasil CN. (ref. 342)



Phase: Kromasil 60 Å, 10 µm, CN
Column: 4.6 x 250 mm
Temperature: ambient
Eluent: MeOH:KH_2PO_4 25 mM pH 6.0 (80:20; v:v)
Flow rate: 1 ml/min.
Detection: UV 215 nm

QC test, tricyclic antidepressants

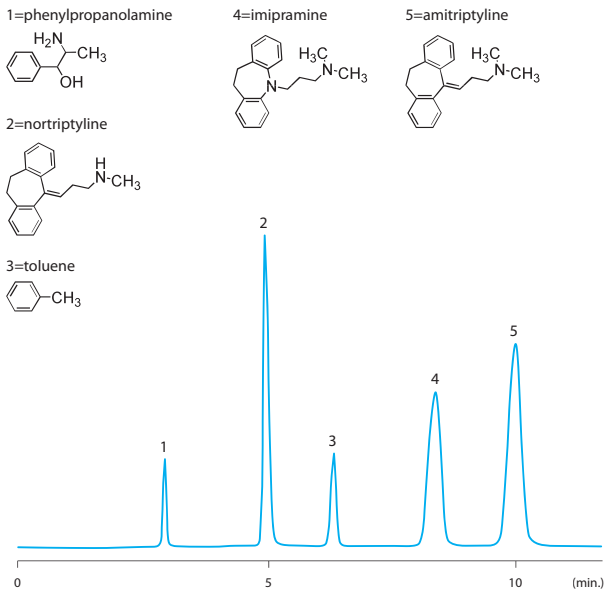
QC test of Kromasil C4. (ref. 349)



Phase: Kromasil 100 Å, 5 µm, C4
Column: 4.6 x 250 mm
Temperature: ambient
Eluent: MeOH:KH_2PO_4 25 mM pH 6.0 (80:20; v:v)
Flow rate: 1 ml/min.
Detection: UV 215 nm

QC test, tricyclic antidepressants

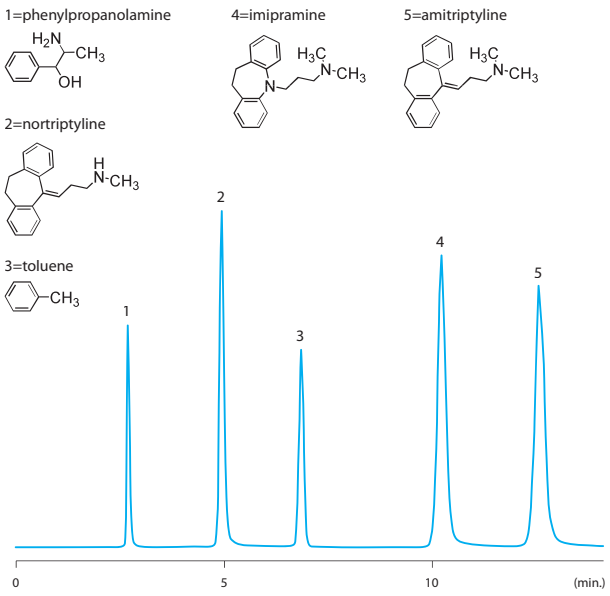
QC test of Kromasil C8. (ref. 350)



Phase: Kromasil 100 Å, 5 µm, C8
Column: 4.6 x 250 mm
Temperature: ambient
Eluent: MeOH:KH_2PO_4 25 mM pH 6.0 (80:20; v:v)
Flow rate: 1 ml/min.
Detection: UV 215 nm

QC test, tricyclic antidepressants

QC test of Kromasil C18. (ref. 351)



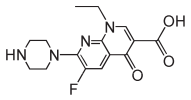
Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: ambient
Eluent: MeOH:KH_2PO_4 25 mM pH 6.0 (80:20; v:v)
Flow rate: 1 ml/min.
Detection: UV 215 nm

DRUGS AND METABOLITES

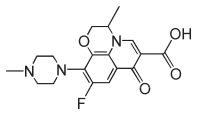
Quinolinones

Determination of quinolinones in food. (ref. 119)

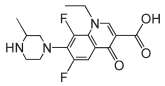
1=enoxacin



2=ofloxacin



3=lomefloxacin

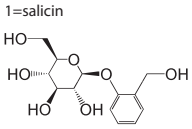


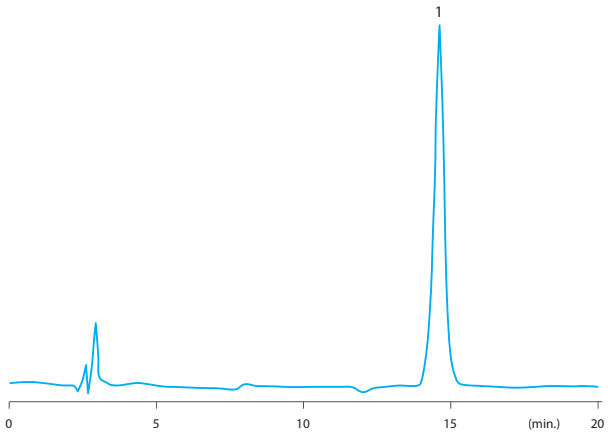
Phase: Kromasil 100 Å, 5 µm, C8
Column: 3.2 x 250 mm
Eluent: oxalic acid (0.01M):ACN:MeOH (6:3:1; v:v:v)
Flow rate: 0.5 ml/min.
Detection: fluorescence (I_{em} 445 nm, I_{ex} 278 nm)

Salicin

Determination of salicin in extract of willow bark. (ref. 262)

1=salicin



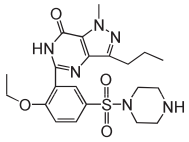


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Eluent: MeOH:KH_2PO_4 buffer (pH 4.01, 0.01 M) (15:85; v:v)
Flow rate: 1 ml/min.
Detection: UV 265 nm

Sildenafil

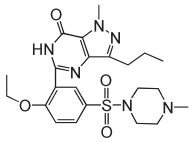
Determination of sildenafil (Viagra) and its metabolite (UK 103320) with ASTED equipment. (ref. 98)

1=metabolite UK 103320



3=reference compound

2=sildenafil

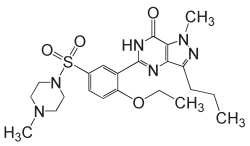


Phase: Kromasil 100 Å, 5 µm, C4
Column: 4.6 x 100 mm
Temperature: 40°C
Eluent: A CN:potassium phosphate buffer (0.5 M, pH 4.5, containing 10 mM diethylamine HCl):water (28:4:68; v:v:v)
Flow rate: 1.5 ml/min.
Detection: UV 230 nm

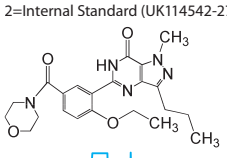
Sildenafil

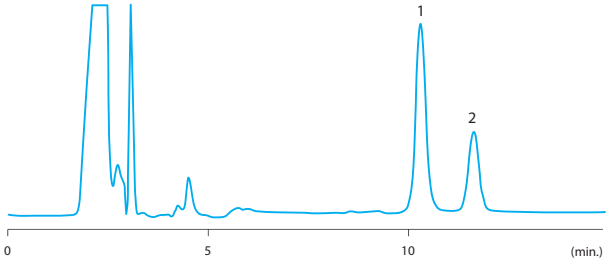
Determination of sildenafil citrate (Viagra). (ref. 254)

1=sildenafil



2=Internal Standard (UK114542-27)



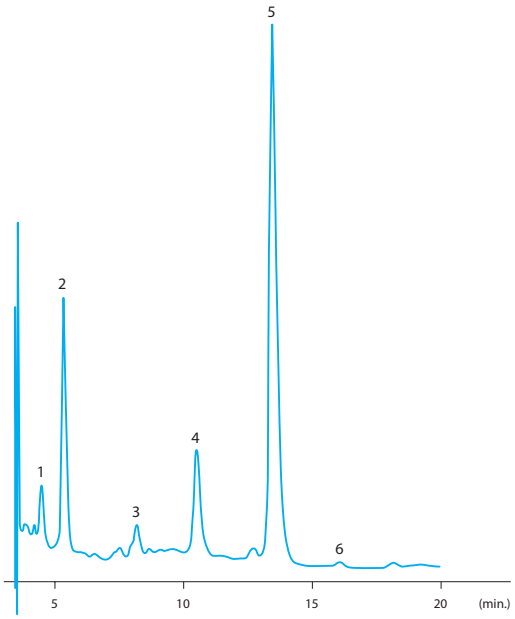


Phase: Kromasil 100 Å, 5 µm, C4
Column: 4.6 x 150 mm
Temperature: 40°C
Eluent: ACN : 0.5 M potassium phosphate buffer (pH 4.5; containing 10 mM diethylamine HCl) (32:68; v:v)
Flow rate: 0.7 ml/min.
Detection: UV 230 nm

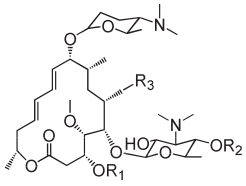
DRUGS AND METABOLITES

Spiramycin

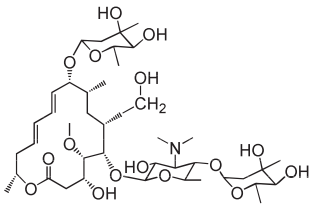
Determination of spiramycin in pig liver. (ref. 94)



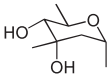
1, 2, 3, 4 and 6= substituted base structure according to table



5=spiramycin S



a -mycarose



timonacic

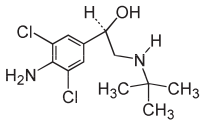
	R1	R2	R3
1. cysteyl neospiramycin I	H	H	timonacic
2. cysteyl spiramycin I	H	a -mycarose	timonacic
3. spiramycin I + cysteyl neospiramycin III	H	a - mycarose	COH
	$COCH_2CH_3$	H	timonacic
4. cysteyl spiramycin III	$COCH_2CH_3$	a -mycarose	timonacic
5. spiramycin S			
6. spiramycin III	$COCH_2CH_3$	a -mycarose	COH

Phase: Kromasil 100 Å, 5 µm, C8
Column: 4.6 x 250 mm
Temperature: 60°C
Eluent: CH_3CN:sodium phosphate buffer (0.05 M pH 2.3) (33:67; v:v) + 6 g/l $NaClO_4$
Flow rate: 1.1 ml/min.
Detection: UV 232 nm

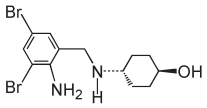
Steroids

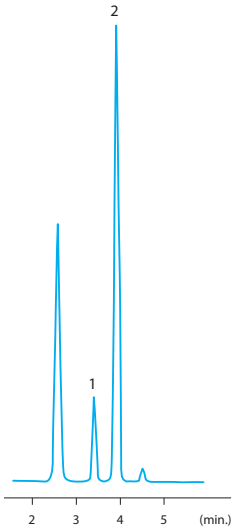
Analysis of clenbuterol hydrochloride and ambroxol hydrochloride. (ref. 331)

1=clenbuterol



2=ambroxol



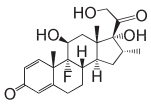


Phase: Kromasil 60 Å, 10 µm, CN
Column: 4.6 x 250 mm
Eluent: 1.8 g sodium decanesulphate + 3 g potassium phosphate monobasic + 600 ml water (pH 3.0) + 200 ml ACN + 200 ml MeOH
Flow rate: 1.5 ml/min.
Detection: UV 215 nm

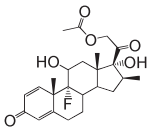
Steroids

Analysis of dexamethasone and betamethasone acetate in bovine liver. (ref. 272a)

1=dexamethasone



2=betamethasone acetate

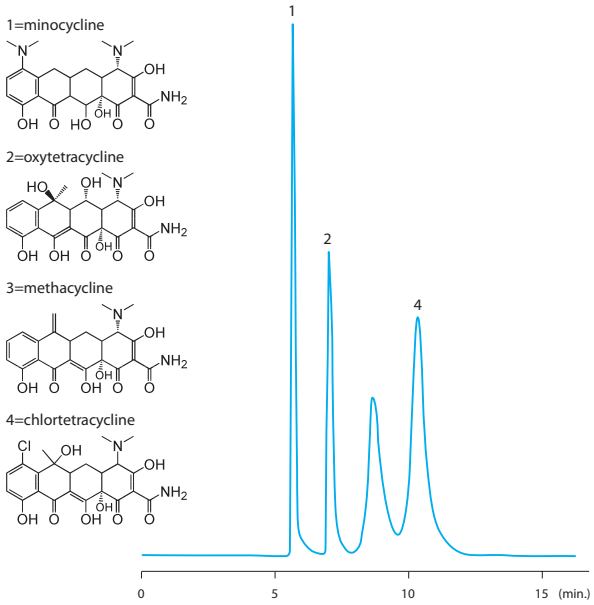


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4 x 150 mm
Eluent: MeOH:water (80:20; v:v)
Flow rate: 1 ml/min.
Detection: UV 240 nm

DRUGS AND METABOLITES

Tetracyclines

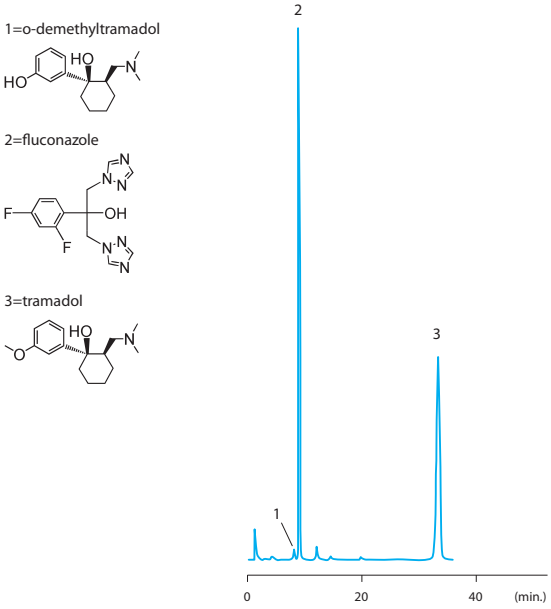
Determination of tetracyclines as chelates with aluminum(III). (ref. 273)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Eluent: ACN:DMF:0.05 M citric acid-sodium citrate buffer (pH 2.5) (5:20:75; v:v:v)
Flow rate: 0.7 ml/min.
Detection: fluorescence (I_{ex} 380 nm and I_{em} 480 nm)

Tramadol

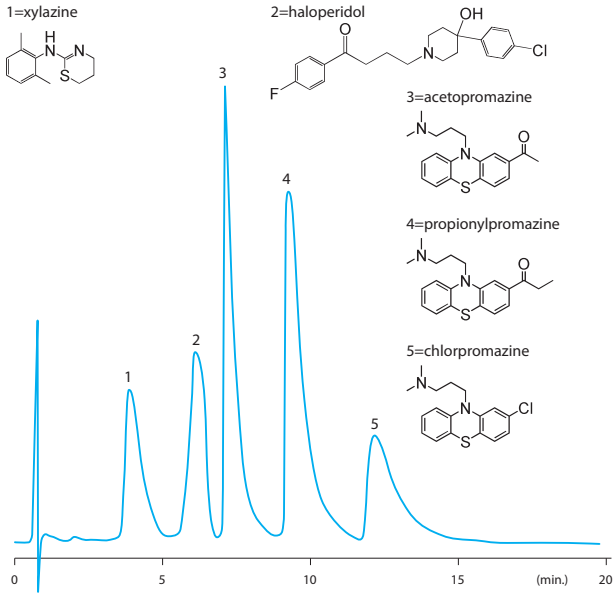
Determination of tramadol and its active metabolite in human plasma. (ref. 130)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4 x 250 mm
Temperature: 30°C ± 3°C
Eluent: acetonitrile:water (19:81, v:v) cont. 0.06 M NaH_2PO_4 and 0.05 M triethylamine, adjusted to pH 7.90
Flow rate: 1 ml/min.
Detection: fluorescence (I_{ex} 207 nm and I_{em} 300 nm)

Tranquilizers, veterinary

Analysis of xylazine, haloperidol, acetopromazine, propionylpromazine and chlorpromazine in bovine liver. (ref. 272b)

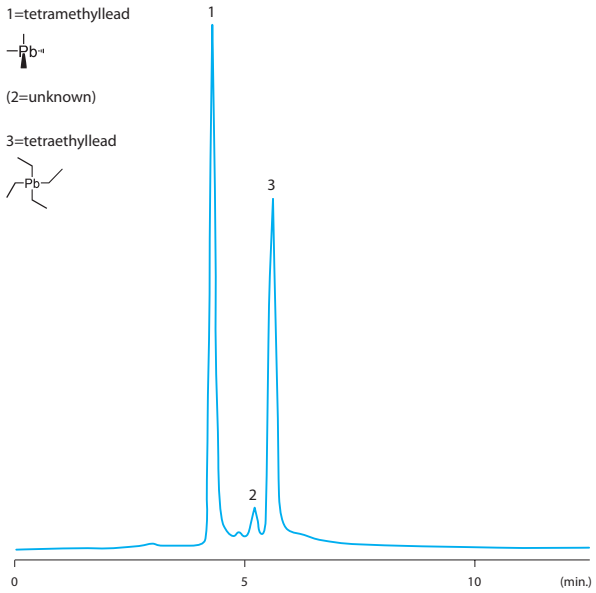


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4 x 150 mm
Eluent: MeOH:water (80:20; v:v)
Flow rate: 1 ml/min.
Detection: UV 240 nm

ENVIRONMENTAL

Alkyllead

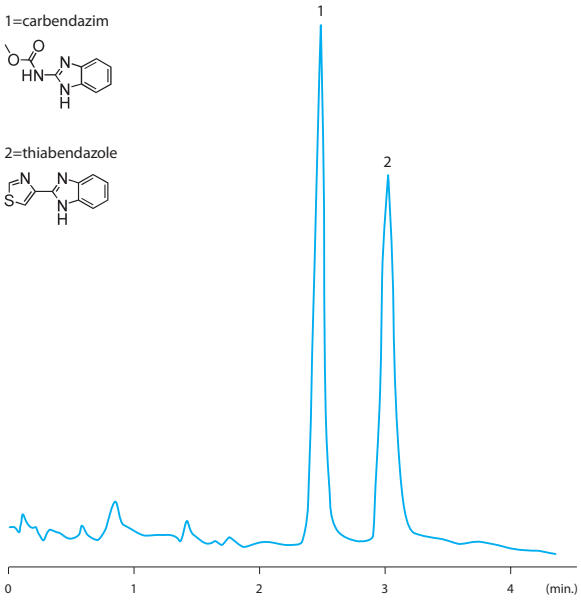
Determinaiton of tetramethyllead and tetraethyllead. (ref. 198)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 0.32 x 230 mm
Temperature: start: 50°C, ramp: 16°C/min., hold: 100°C
Eluent: ACN
Flow rate: 10 µl/min
Detection: ICP-MS

Benzimidazole fungicides

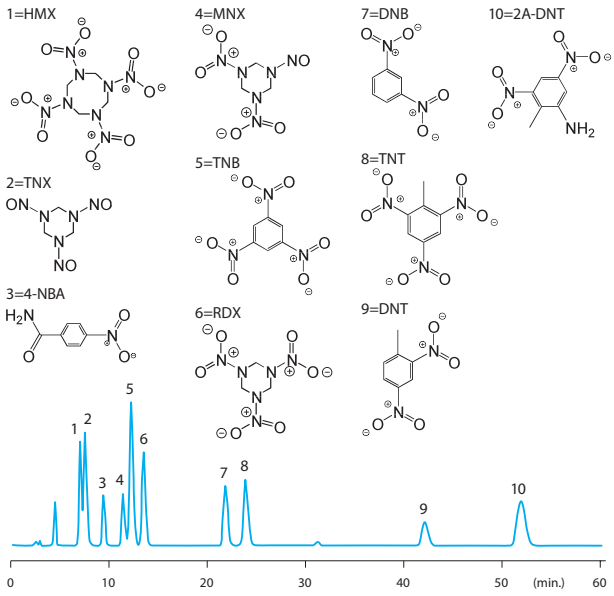
Determination of benzimidazole fungicides in fruits. (ref. 112)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4 x 150 mm
Temperature: 55°C
Eluent: MeOH-water (50:50; v:v)
Flow rate: 1 ml/min.
Detection: UV 285 nm

Explosives

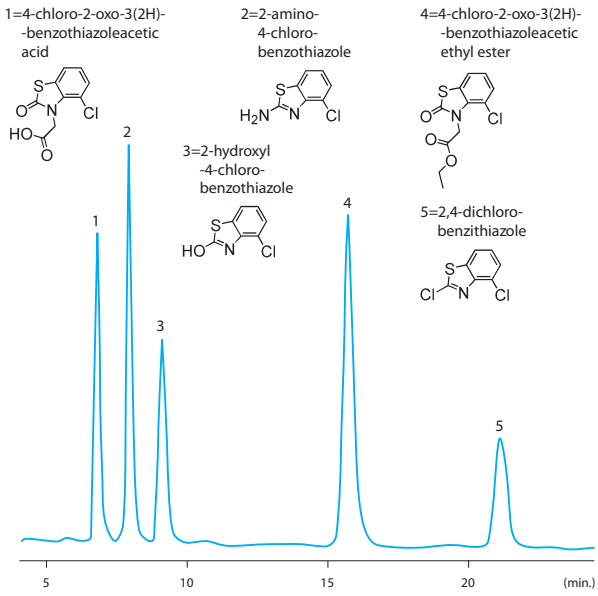
Sensitive determination of RDX, nitroso-RDX metabolites and other munitions in ground water. (ref. 175)



Phase: Kromasil 100 Å, C8
Column: 2 x 250 mm
Temperature: 32°C
Eluent: isopropanol:water:0.5 M ammonium formate (pH 8 adjusted by ammonium hydroxide) (20:78:2; v:v:v)
Flow rate: 0.2 ml/min.
Detection: UV

Herbicides

Analysis of 4-chloro-2-oxo-3(2H)-benzothiazoleacetic ethyl ester and related compounds. (ref. 286)

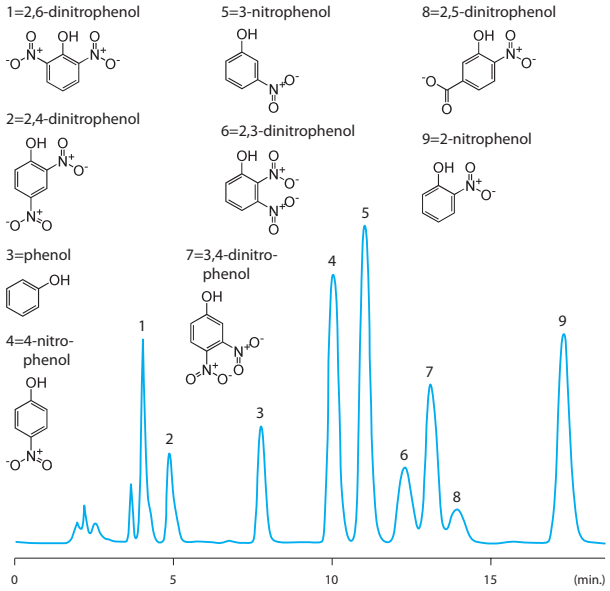


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 200 mm
Temperature: 30°C
Eluent: MeOH:water:HAc (60:40:1; v:v:v)
Flow rate: 0.7 ml/min.
Detection: UV 254 nm

ENVIRONMENTAL

Nitrophenols

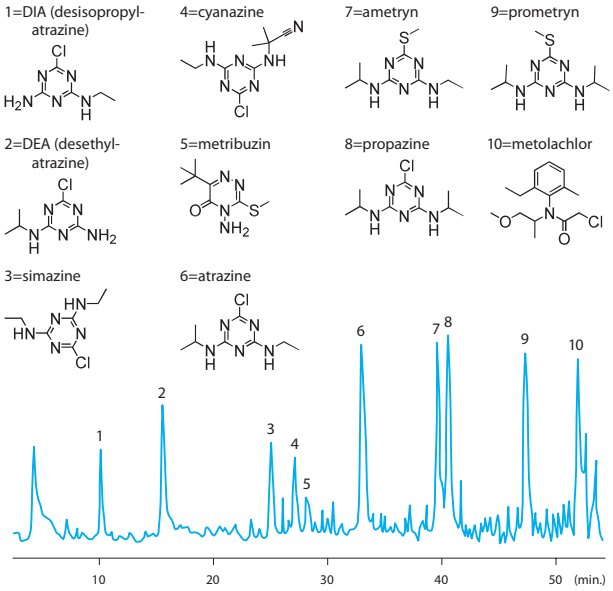
Determination of toxic nitrophenols in the atmosphere. (ref. 183)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.4 x 250 mm
Eluent: A:B (55:45; v:v) A: 0.005 M KH$_2$PO$_4$ (pH 4.5 with H$_3$PO$_4$):ACN (90:10; v:v) B: 0.005 M KH$_2$PO$_4$ (pH 4.5 with H$_3$PO$_4$):MeOH (25:75; v:v)
Flow rate: 1 ml/min.
Detection: 230 nm

Organonitrogen pesticides

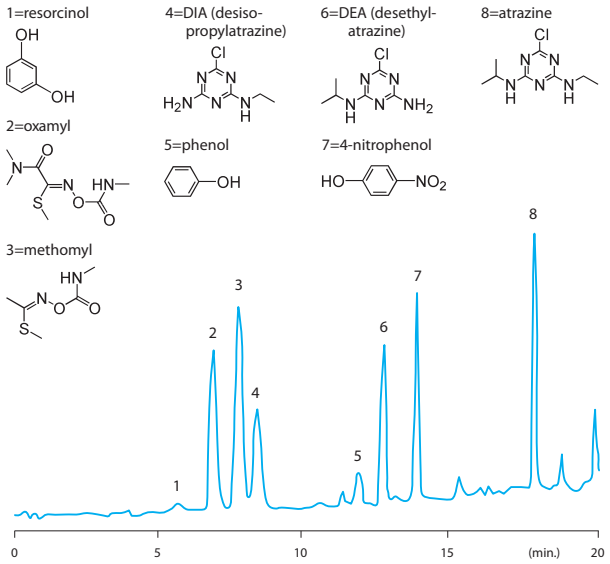
Determination of organonitrogen pesticides in large volumes of surface water. (ref. 132)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Eluent: Gradient, ACN:water, 15 – 60% ACN for 50 min, 60% for 15 min
Flow rate: 1 ml/min.
Detection: APCI-MS

Pesticides and metabolites

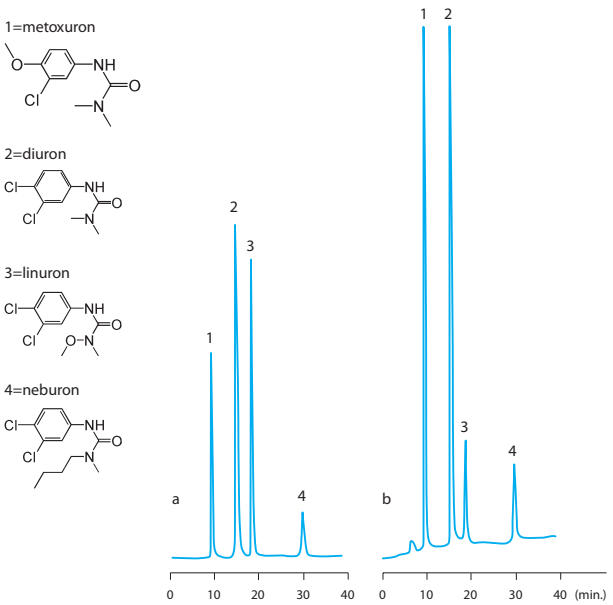
Analysis of polar phenolic compounds, pesticides and metabolites in water. (ref. 167)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: 65°C
Eluent: ACN:water (pH 3 adjusted with sulfuric acid)
Gradient: From 15 to 25% ACN in 9.3 min., to 50% ACN in 4.3 min., to 100% ACN in 6 min. and then 2 min. isocratic elution at 100% ACN.
Flow rate: 1 ml/min.
Detection: UV 280 or 240 nm

Phenylurea herbicides

Determination of phenylurea herbicides in water. (ref. 32)

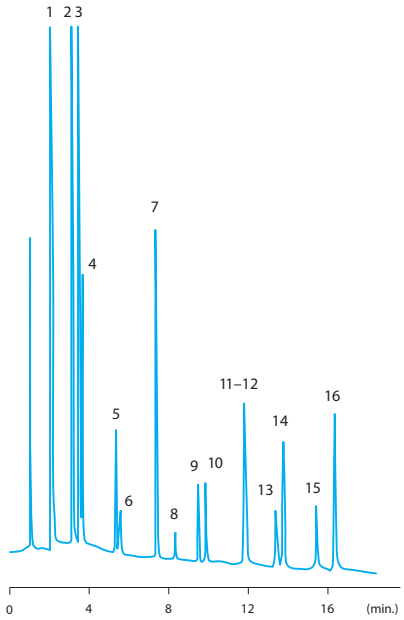


Phase: Kromasil 100 Å, 5 µm, C18
Column: 1 x 300 mm
Eluent: MeOH:water (75:25; v:v) in 0.01 M litium perchlorate at pH 5.5 (adjusted with 1% phosphoric acid)
Flow rate: 20 – 40 µl/min
Detection: UV 254 nm and electrochemical (potential 1,35 V) respectively for the figures

ENVIRONMENTAL

Polycyclic aromatic hydrocarbons

Analysis of polycyclic aromatic hydrocarbons. (ref. 184)



1=naphtalene

2=acenaphthylene

3=acenaphthene

4=fluorene

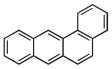
5=phenanthrene

6=anthracene

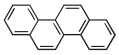
7=fluoranthene

8=pyrene

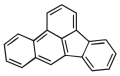
9=benz(a)anthracene



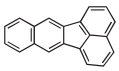
10=chrysene



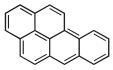
11=benzo(b)fluoranthene



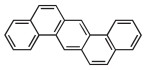
12=benzo(k)fluoranthene



13=benzo(a)pyrene



14=dibenzo(a,h)anthracene



15=indeno(1,2,3-c,d)pyrene

16=benzo(g,h,i)perylene

Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: 40°C
Eluent: CO_2:ACN
Gradient: 0 min. 100% CO_2 , 20 min. 60% CO_2 , 25 min. 60% CO_2

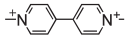
Flow rate: 3 ml/min.
Detection: UV 210 nm

Quaternary ammonium herbicides

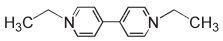
Determination of quaternary ammonium herbicides. (ref. 201)

1=diquat

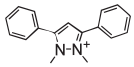
2=paraquat

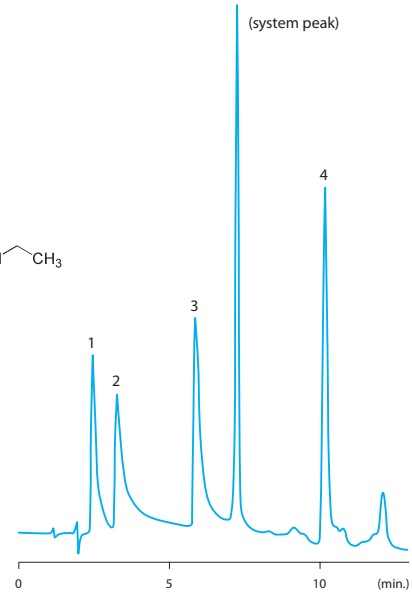


3=ethyl viologen



4=difenzoquat



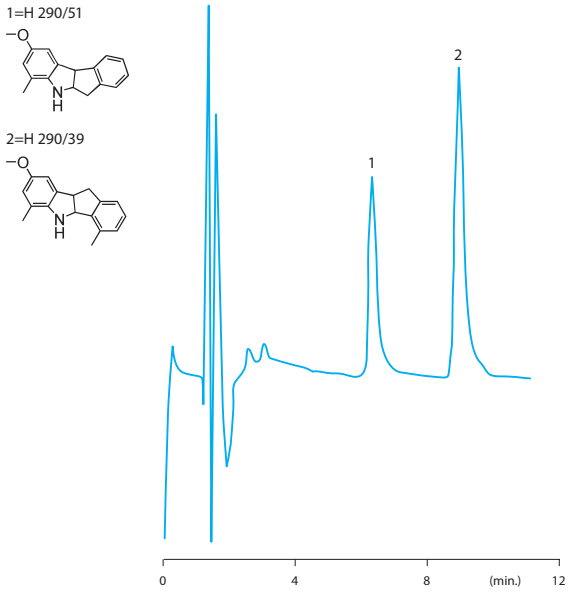


Phase: Kromasil 100 Å, 5 µm, C8
Column: 2.1 x 200 mm
Temperature: 50°C
Eluent: Pentafluoropr opionic acid in water (15 mM, pH 3.3) : ACN
Gradient: 0 min. 2% ACN, 5 min. 8.6% ACN, 5.01 min. 40% ACN, 13 min. 40% ACN
Flow rate: 200 µl/min.
Detection: UV

FOOD AND NUTRITION

Antioxidants, lipophilic

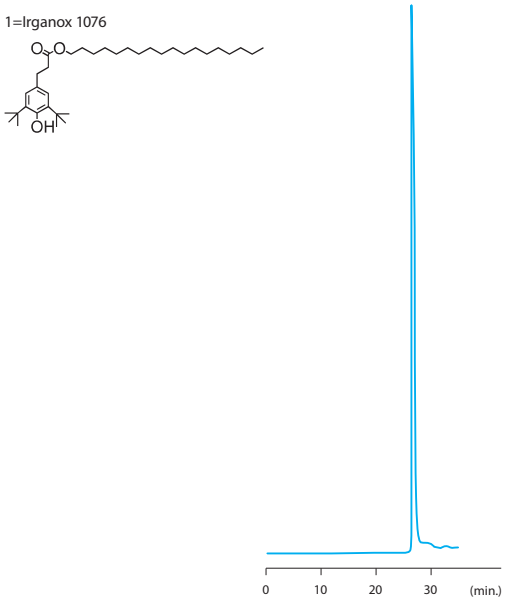
Determination of lipophilic antioxidants in plasma. (ref. 53)



Phase: Kromasil 100 Å, 5 µm, C8
Column: 4.6 x 150 mm
Eluent: Tris (50 mM), HCl (12 mM) and 65% ACN (pH 8.5)
Flow rate: 1 ml/min.
Detection: electrochemical, potential +0.70 V

Irganox

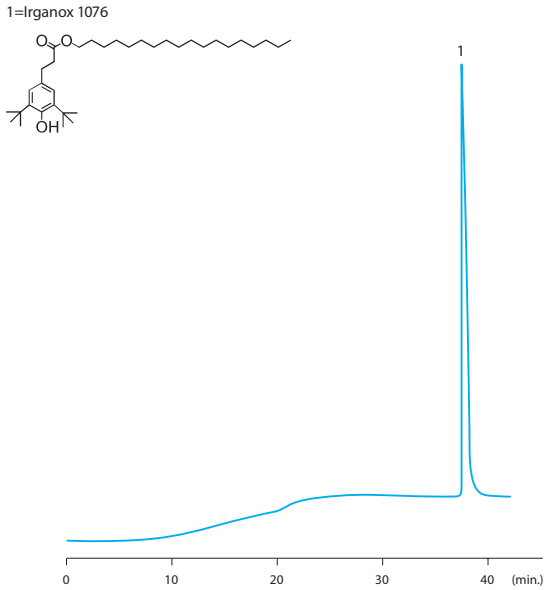
Determination of Irganox (an antioxidant). (ref. 20)



Phase: Kromasil 100 Å, 3.5 µm, C18
Column: 0.25 x 250 mm
Temperature: gradient: 5°C/min. from 5 to 40°C, 2°C/min. from 40 to 80°C, 5°C/min. from 80 to 90°C
Eluent: ACN + 10mM TEA +HCOOH
Flow rate: 5 µl/min.
Detection: ELS

Irganox

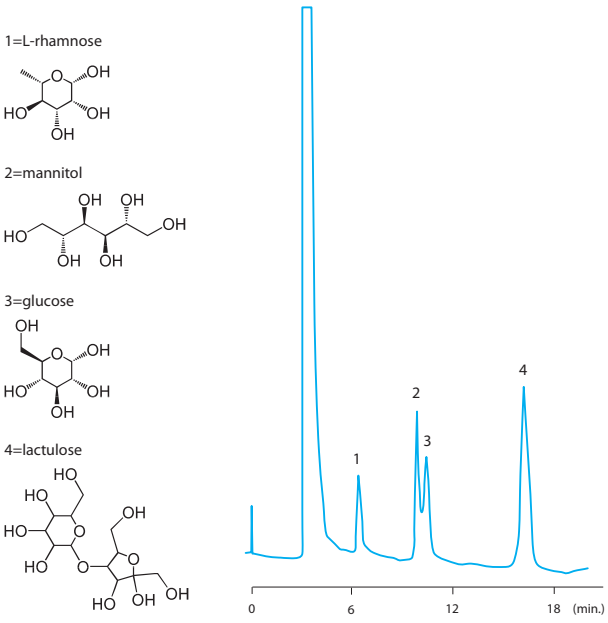
Determination of Irganox. (ref. 208)



Phase: Kromasil 100 Å, 5 µm, C18
Temperature: from 7 to 90°C at 3°C/min.
Column: 0.32 x 500 mm
Eluent: ACN
Flow rate: 5 µl/min
Detection: UV 280 nm

Sugars

Analysis of sugars in urine. (ref. 82)

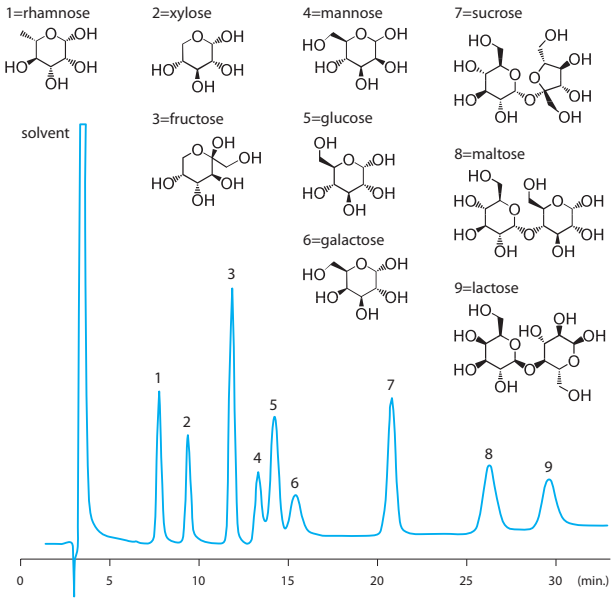


Phase: Kromasil 100 Å, 5 µm, NH 2
Column: 4.6 x 250 mm
Temperature: ambient
Eluent: ACN:water (70:30; v:v)
Flow rate: 1 ml/min.
Detection: refractive index

FOOD AND NUTRITION

Sugars

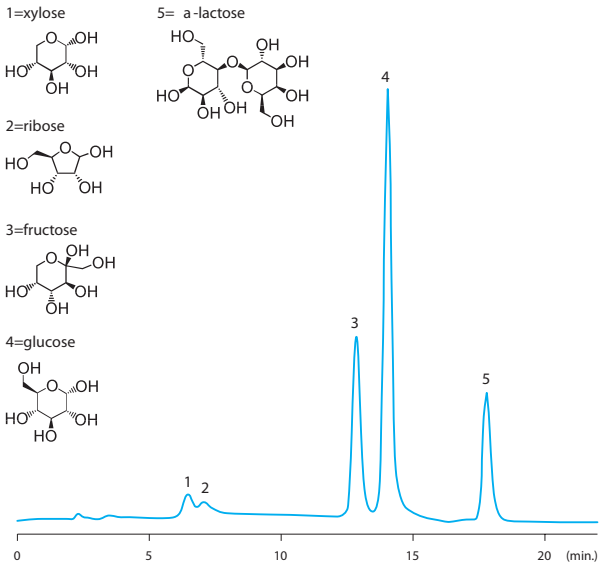
Analysis of sugars. (ref. 315)



Phase: Kromasil 100 Å, 5 µm, NH2
Column: 4.6 x 250 mm
Eluent: ACN:water (75:25; v:v)
Flow rate: 1 ml/min.
Detection: RI

Sugars, phosphorylated

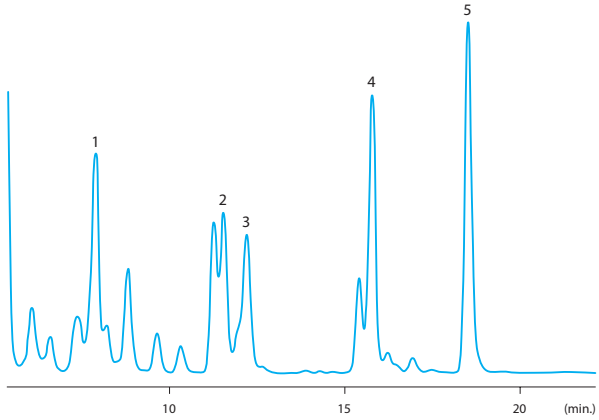
Determination of reducing sugars in beef sirloin, with post-column reduction. (ref. 27)

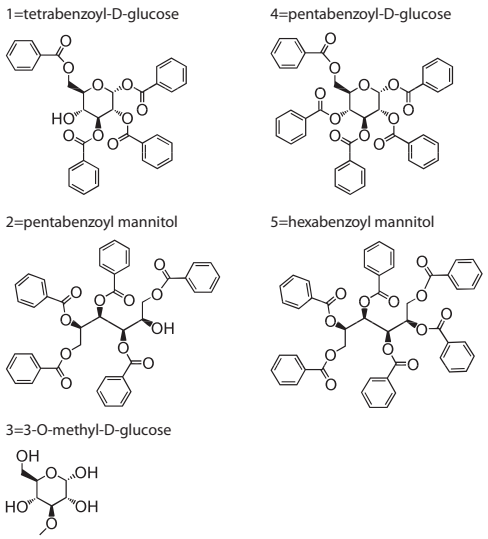


Phase: Kromasil 100 Å, 5 µm, NH2
Column: 4 x 250 mm
Eluent: ACN:water (85:15; v:v) at pH 4.8
Flow rate: 1.4 ml/min.
Post column: Post-column reduction at 95°C with tetrazolium blue (0.7 mM in distilled water and 0.16 M NaOH,15% EtOH, 0.047M Na-K-tartrate, pH 12.7) before detection.
Detection: 550 nm

Sugars and polyols, benzoylated

Analysis of benzoylated sugars and polyols. (ref. 51b)



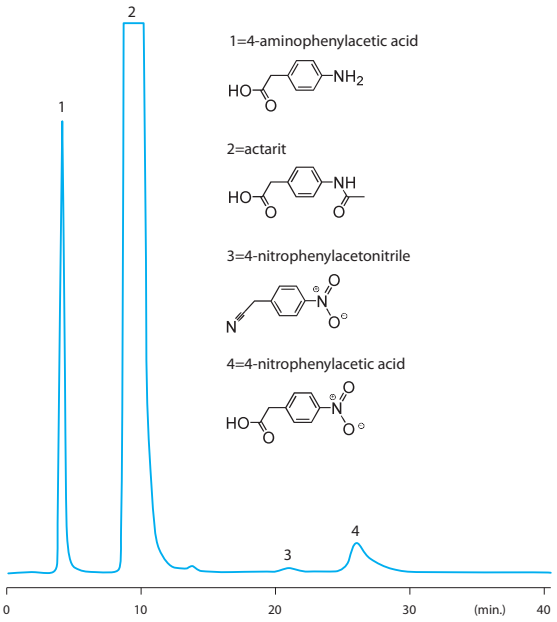


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4 x 250 mm
Eluent: Gradient, ACN-water, 0 min. 70% ACN, 30 min. 95% ACN
Flow rate: 1 ml/min.
Detection: UV 228 nm

NATURAL PRODUCTS

Actarit

Determination of actarit and related compounds. (ref. 274)



1=4-aminophenylacetic acid

2=actarit

3=4-nitrophenylacetonitrile

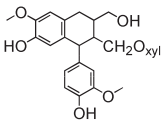
4=4-nitrophenylacetic acid

Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Eluent: MeOH:water (70:30; v:v) + 1% tetrabutylammonium bromide
Flow rate: 1 ml/min.
Detection: UV 245 nm

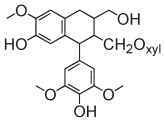
Gaulthersides

Determination of Gaulthersides in Yunnan wintergreen. (ref. 307)

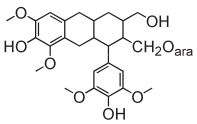
1=gaultherside D3



3=gaultherside D2



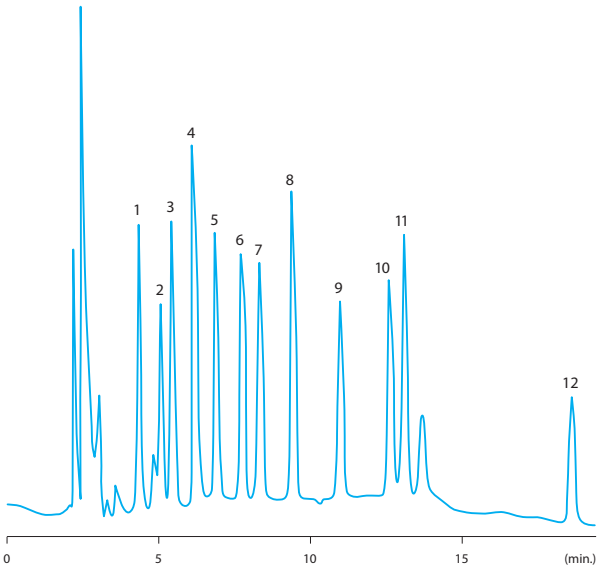
2=gaultherside D1



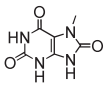
Phase: Kromasil 100 Å, 5 µm, C18
Column: 3.9 x 250 mm
Temperature: ambient
Eluent: MeOH:ACN:water (25:5:70; v:v:v) pH=3.5 (adjusted with H_3PO_4)
Flow rate: 0.7 ml/min.
Detection: UV 220 nm

Caffeine and metabolites

Quantitation of caffeine metabolism products. (ref. 271)

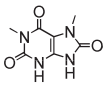


1=7-methyluric acid

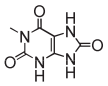


5=1-methylxanthine

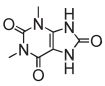
9=1,7-dimethyluric acid



2=1-methyluric acid



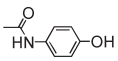
6=1,3-dimethyluric acid



10=paraxanthine

3=7-methylxanthine

7=paracetamol



11=theophylline

4=3-methylxanthine

8=theobromine

12=caffeine

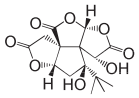
Phase: Kromasil 100 Å, 5 µm, C4
Column: 4 x 250 mm
Temperature: ambient
Eluent: acetate buffer (pH 3.5) : MeOH (97:3; v:v)
Gradient: 0 min. 3% MeOH, 20 min. 20% MeOH
Flow rate: 1 ml/min.
Detection: UV 275 nm

NATURAL PRODUCTS

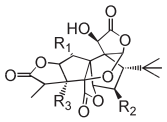
Ginkgolides

Determination of ginkgolides. (ref. 277)

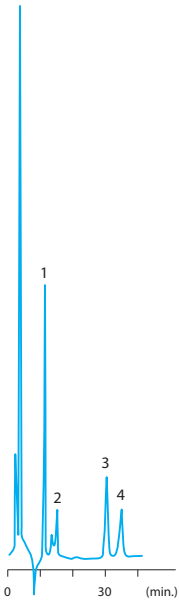
1=bilobalide



2 – 4=ginkgolide



	R_1	R_2	R_3
2. ginkgolide C	OH	OH	OH
3. ginkgolide A	H	H	OH
4. ginkgolide B	OH	H	OH

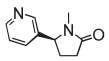


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Eluent: water:MeOH (77:33; v:v)
Flow rate: 1 ml/min.
Detection: refractive index

Nicotine

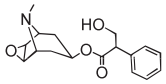
Clinical assay of nicotine and its metabolite, cotinine, in body fluids. (ref. 306)

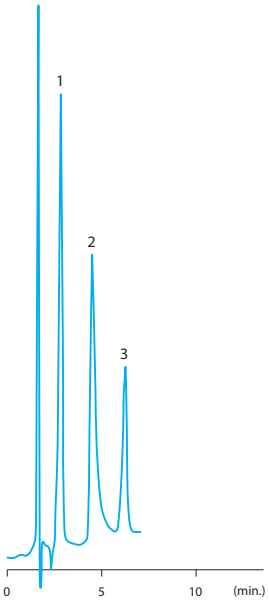
1=cotinine



2=nicotine

3=scopolamine

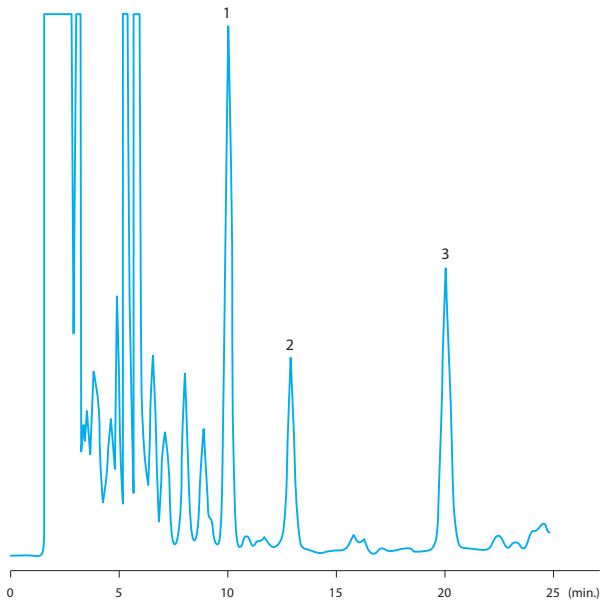




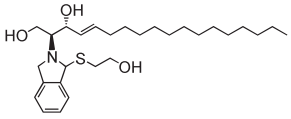
Phase: Kromasil 100 Å, 5 µm, C8
Column: 4 x 250 mm
Temperature: ambient, 22°C
Eluent: ammonium acetate (0.05 M):CH_3OH (60:40; v:v)
Flow rate: 1.4 ml/min.
Detection: UV 262 nm

Sphingoids

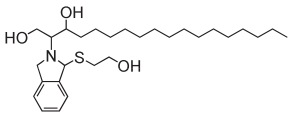
Analysis of sphinganine and sphingosine from urine with precolumn o-phthaldialdehyde (OPA) derivatization. (ref. 87)



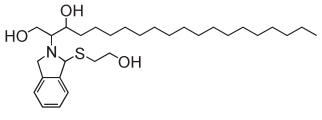
1=OPA-sphingosine



2=OPA-sphinganine



3=OPA-C20-sphinganine



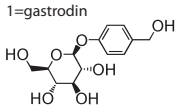
Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: 45°C
Eluent A: 0.07 M K_2HPO_4 in MeOH (1:9; v:v)
Eluent B: MeOH
Gradient: 0 min. 0% B, 10 min. 0% B, 30 min. 40% B, 32 min. 100% B, 42 min. 100% B, 44 min. 0% B, 60 min. 0% B
Flow rate: 1.3 ml/min.
Detection: fluorescence (I_{ex} 340 nm, I_{em} 455 nm)

NATURAL PRODUCTS

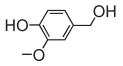
TCM, Traditional Chinese Medicine

Determination of gastrodin, p-hydroxybenzyl alcohol, vanillyl alcohol, p-hydroxylbenzaldehyde and vanillin from TCM. (ref. 297)

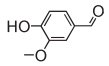
1=gastrodin



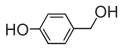
3=vanillyl alcohol



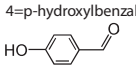
5=vanillin



2=p-hydroxybenzyl alcohol



4=p-hydroxylbenzaldehyde

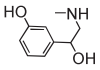


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 150 mm
Temperature: ambient
Eluents: Eluent A: water, eluent B: MeOH
Gradient: 0 min 5% B, 9 min 44% B, 12 min 65% B, 15 min 65% B
Flow rate: 1 ml/min.
Detection: UV 270 nm

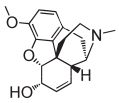
TCM, Traditional Chinese Medicine

Determination of three components in a Chinese doctor-cough syrup. (ref. 210)

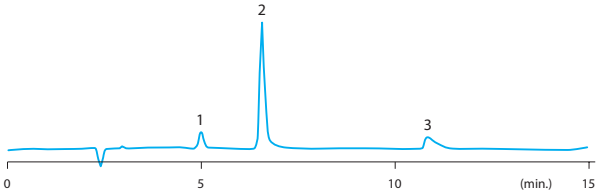
1=phenylephrine



2=codeine



3=pseudoephedrine



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: 45°C
Eluent: MeOH:water:acetic acid (40:60:2; v:v:v) + 5 mM IPR-B [8]
Flow rate: 1 ml/min.
Detection: UV 245 nm

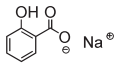
TCM, Traditional Chinese Medicine

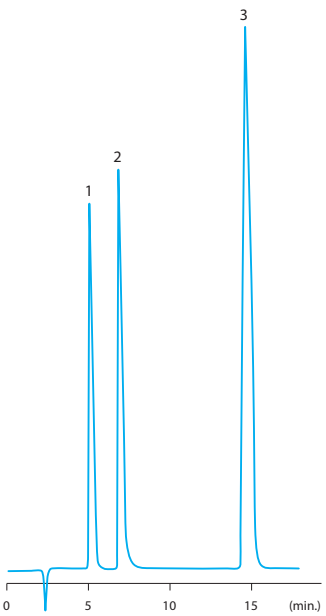
Analysis of caffeine, antipyrine and sodium salicylate in Satongfeng injection. (ref. 215)

1=caffeine

2=antipyrine

3=sodium salicylate



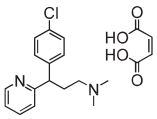


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Eluent: 20 mM potassium dihydrogen phosphate: MeOH:glacial acetic acid (55:25:0.4; v:v:v)
Flow rate: 1 ml/min.
Detection: UV 242 nm

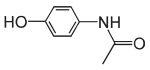
TCM, Traditional Chinese Medicine

Determination of four components of Ganmaoling capsules. (ref. 258)

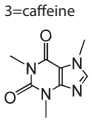
1=chlorpheniramine maleate



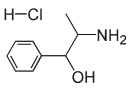
2=paracetamol

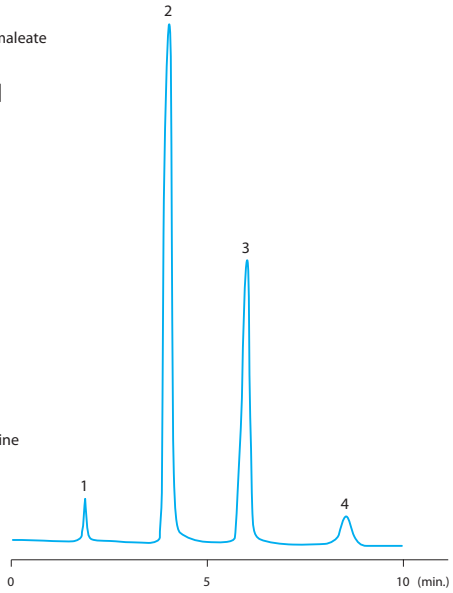


3=caffeine



4=phenylpropanolamine hydrochloride



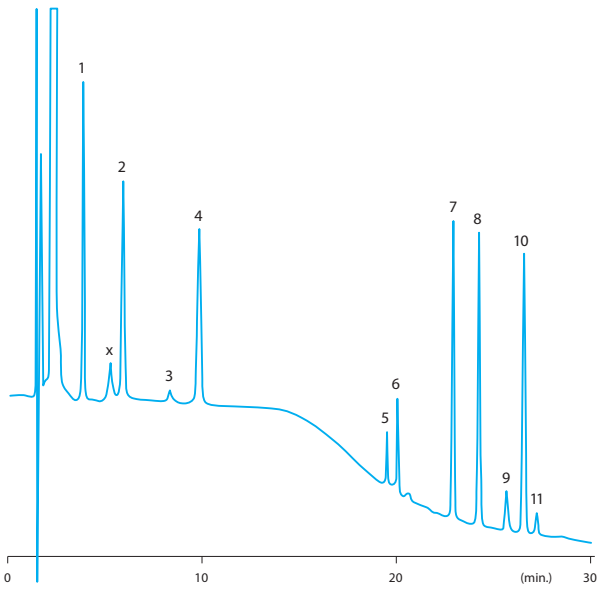


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: 30°C
Eluent: ACN:diammonium hydrogen phosphate (pH 3.1, 0.03 M) (12:88; v:v) containing 0.75 – 5 mM sodium sulfonic heptane
Flow rate: 1 ml/min.
Detection: UV 214 nm

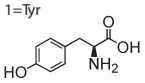
PEPTIDES

Enkephalin peptides

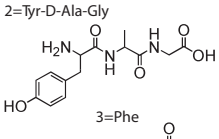
Analysis of enkephalin peptides, their metabolites and enzyme inhibitors. (ref. 104)



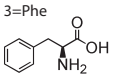
1=Tyr



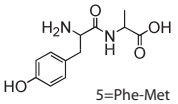
2=Tyr-D-Ala-Gly



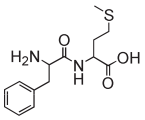
3=Phe



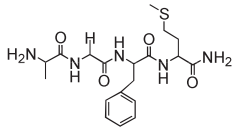
4=Tyr-D-Ala



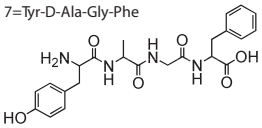
5=Phe-Met



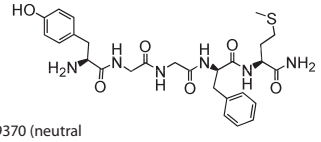
6=D-Ala-Gly-Phe-Met-NH$_2$



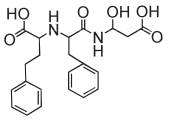
7=Tyr-D-Ala-Gly-Phe



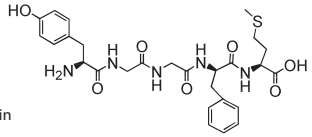
8=methionine enkephalinamide (MEA)



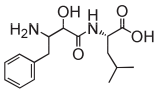
9=SCH 39370 (neutral metalloendopeptidase inhibitor)



10=methionine enkephalin (ME)



11=bestatin



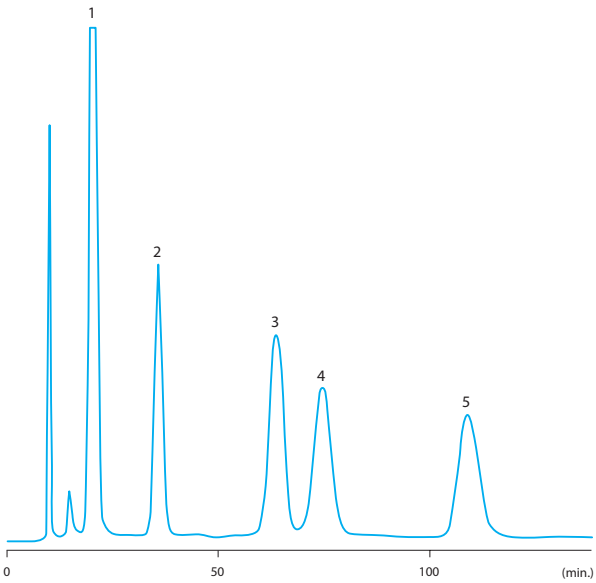
x = impurity

Phase: Kromasil 100 Å, 5 µm, C8
Column: 4.6 x 150 mm
Eluent A: 35 mM phosphate buffer (pH 2.1)
Eluent B: 59 mM phosphate buffer (pH 2.1) – ACN (60:40; v:v)
Gradient: ACN from 4 to 5% in 9 min., then to 15% in 5 min., finally to 30% in 21 min.

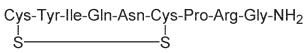
Flow rate: 1 ml/min.
Detection: UV 205 nm

Nonapeptides

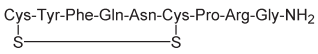
Analysis of five nonapeptides. (ref. 28)



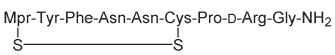
1=8-Arg-vasotocin



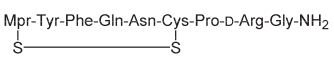
2=8-Arg-vasopressin



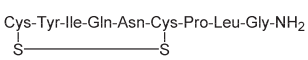
3=d-4-Asn-8-D-vasopressin



4=d-8-D-Arg-vasopressin



5=oxytocin

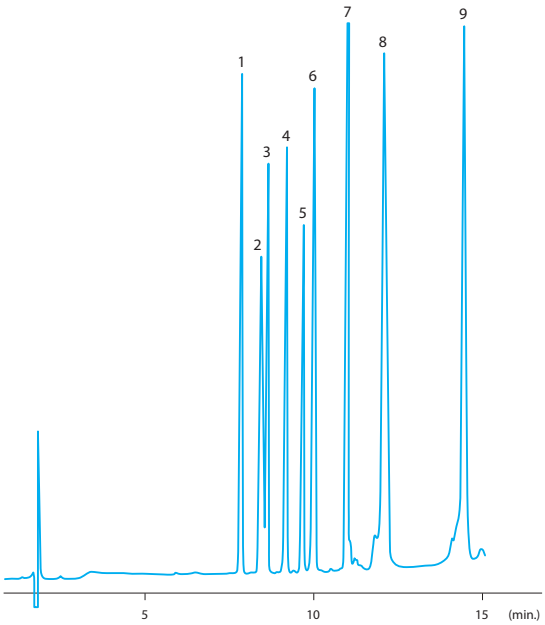


Phase: Kromasil 100 Å, 12.5 µm, C18
Column: 10 x 250 mm
Eluent: ACN:phosphate buffer (pH 7) (18:82; v:v)
Flow rate: 4 ml/min.
Detection: UV 225 nm

PEPTIDES

Peptides

Separation of 9 peptides. (ref. 316)



1=oxytocin

Cys-Tyr-Ile-Gln-Asn-Cys-Pro-Leu-Gly-NH_2

S—S

2=bradykinin

Arg-Pro-Pro-Gly-Phe-Ser-Pro-Phe-Arg

3=methionine enkephalin

Tyr-Gly-Gly-Phe-Met

4=angiotensin II

Asp-Arg-Val-Tyr-Ile-His-Pro-Phe

5=leucin enkephalin

Tyr-Gly-Gly-Phe-Leu

6=angiotensin I

Asp-Arg-Val-Tyr-Ile-His-Pro-Phe-His-Leu

7=insulin

8=lysosyme

9=melittine

Gly-Ile-Gly-Ala-Val-Leu-Lys-Val-Leu-Thr-Thr-Gly-Leu-
-Pro-Ala-Leu-Ile-Ser-Trp-Ile-Lys-Arg-Lys-Arg-Gln-Gln-NH 2

Phase: Kromasil 100 Å, 5 µm, C8
Column: 4.5 x 250 mm
Temperature: ambient
Eluent A: 0.1% TFA in 10% CH_3CN and 90% water
Eluent B: 0.1% TFA in 90% CH_3CN and 10% water
Gradient: 0 min. 0% B, 8 min. 25% B, 20 min. 75% B

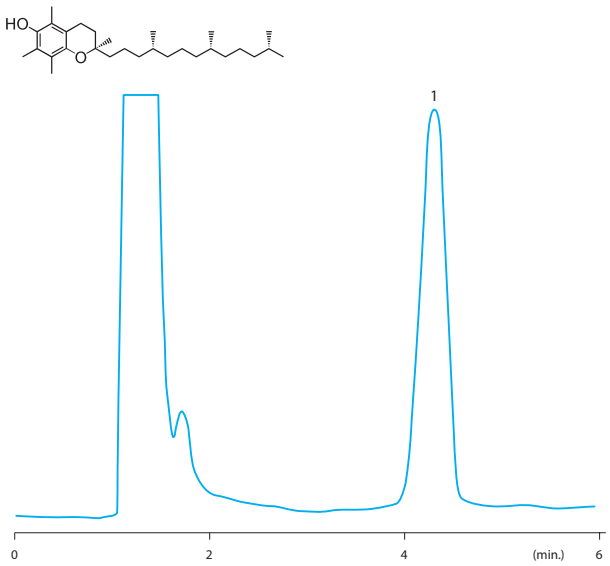
Flow rate: 2 ml/min.
Detection: UV 254 nm

VITAMINS

Vitamin E

Determination of vitamin E in human plasma. (ref. 108)

1=vitamin E

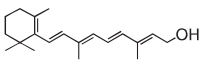


Phase: Kromasil 100 Å, 5 µm, C1
Column: 4.6 x 100 mm
Temperature: ambient
Eluent: MeOH:ACN:water (50:35:15; v:v:v)
Flow rate: 1.5 ml/min.
Detection: UV 292 nm

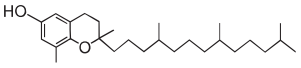
Vitamins

Determination of tocopherols and vitamin A in vegetable oils. (ref. 188)

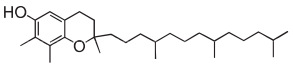
1=vitamin A (retinol)



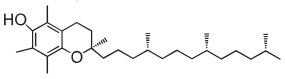
2= d-tocopherol



3= g-tocopherol



4= a-tocopherol

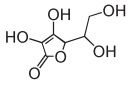


Phase: Kromasil 100 Å, 5 µm, C18
Column: 0.2 x 800 mm
Temperature: 65°C
Eluent: CO_2 with 8% MeOH
Pressure: 180 atm
Detection: electrochemical (potential +1.80 V versus Quasi-Reference Electrode)

Vitamins

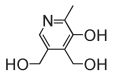
Analysis of soluble vitamins. (ref. 330)

1=ascorbic acid (vitamin C)

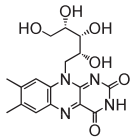


2=nicotinamide (vitamin B_3)

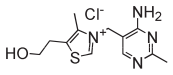
3=pyridoxine (vitamin B_6)

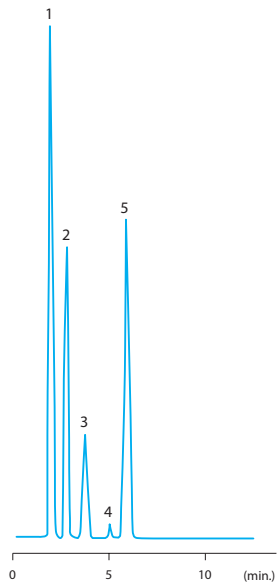


4=riboflavine (vitamin B_2)



5=thiamine chloride (vitamin B_1)



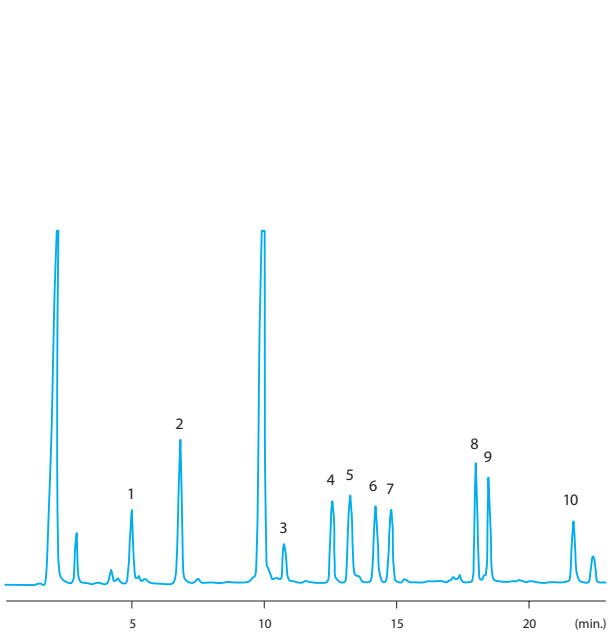


Phase: Kromasil 100 Å, 10 µm, NH2
Column: 4.6 x 250 mm
Eluent: 0.68 g sodium 1-hexanesulfonic acid + 0.8 g phosphoric acid + 720 ml water (pH 2.3) + 80 ml ACN + 200 ml MeOH
Flow rate: 1 ml/min.
Detection: UV 210 nm

OTHER

Amines

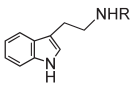
Determination of amines from fish decomposition by dansylchloride derivatisation. (ref. 73)



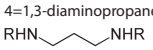
1=NH$_3^+$ R

2=methylamine

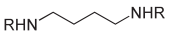
3=tryptamine



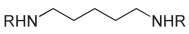
4=1,3-diaminopropane



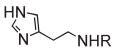
5=putrescine



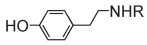
6=cadaverine



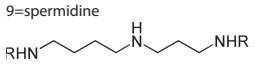
7=histamine



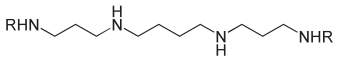
8=tyramine



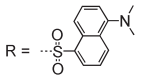
9=spermidine



10=spermine



dansyl derivative group

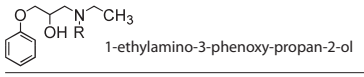


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: 25°C
Eluent: ACN:water
Gradient: 0 min 60% ACN, 6 min 75% ACN, 8 min 75% ACN, 13 min 95% ACN, 20 min 95% ACN, 20.01 min 60% ACN

Flow rate: 1 ml/min.
Detection: UV 254 nm

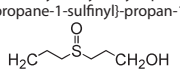
Amino alcohols

Separation of derivates of 1-ethylamino-3-phenoxy-propan-2-ol. (ref. 38)

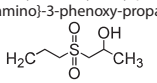


1-ethylamino-3-phenoxy-propan-2-ol

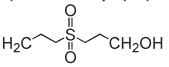
1=3-{3-[Ethyl-(2-hydroxy-3-phenoxy-propyl)-amino]--propane-1-sulfinyl}-propan-1-ol

R= 

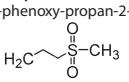
2=1-{Ethyl-[3-(2-hydroxy-propane-1-sulfonyl)-propyl]--amino}-3-phenoxy-propan-2-ol

R= 

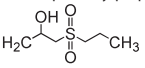
3=3-{3-[Ethyl-(2-hydroxy-3-phenoxy-propyl)-amino]--propane-1-sulfonyl}-propan-1-ol

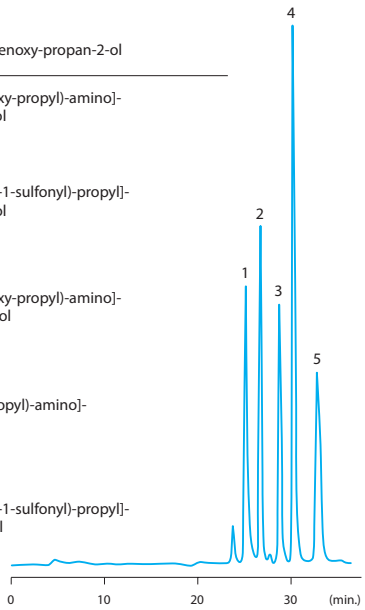
R= 

4=1-[Ethyl-(3-methanesulfonyl-propyl)-amino]--3-phenoxy-propan-2-ol

R= 

5=1-{Ethyl-[2-hydroxy-3-(propane-1-sulfonyl)-propyl]--amino}-3-phenoxy-propan-2-ol

R= 



Phase: Kromasil 100 Å, 5 µm, C8
Column: 0.2 x 900 mm
Eluent: ACN:ammonium acetate(5 mM) (55:45; v:v)
Flow rate: 0.95 µl/min.
Detection: ESI-MS

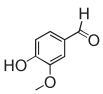
Aroma extracts in alcoholic beverages

Separation of aroma extracts found in wine and other alcoholic beverages. (ref. 209)

1=furfural

2=sotolon

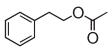
3=vanillin



4=guaiacol

5=2-phenylethanol

6=2-phenylethyl acetat

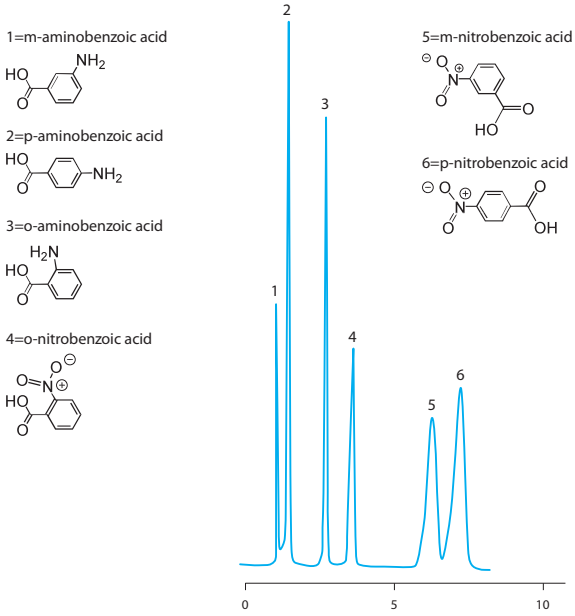


Phase: Kromasil 100 Å, 5 µm, C18
Column: 10 x 250 mm
Eluent: water:ethanol
Gradient: 0 min. 100% water, 8 min. 80% water, 28 min. 50% water, 40 min. 0% water
Flow rate: 2 ml/min.
Detection: UV 220 nm

OTHER

Aromatics

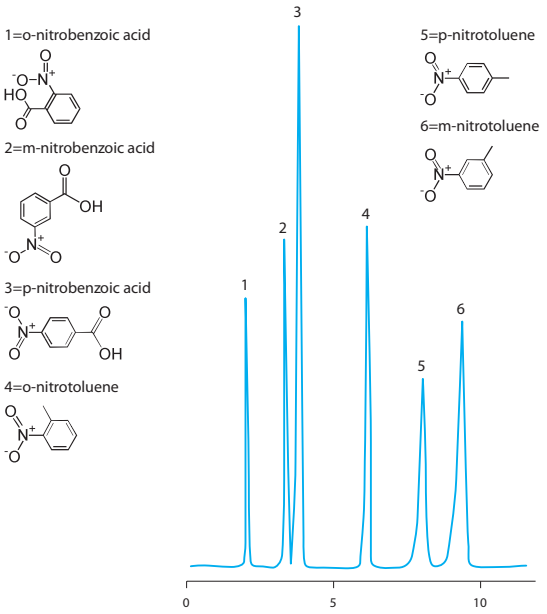
Separation of mixtures of nitrobenzoic acid and aminobenzoic acid isomers. (ref. 214)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 200 mm
Temperature: 35°C
Eluent: MeOH:water:THF (55:44:1; v:v:v) with b-cyclodextrin at pH 3.0
Flow rate: 0 – 4 min. 2 ml/min., 4 – 10 min. 2.6 ml/min.
Detection: UV 254 nm

Aromatics

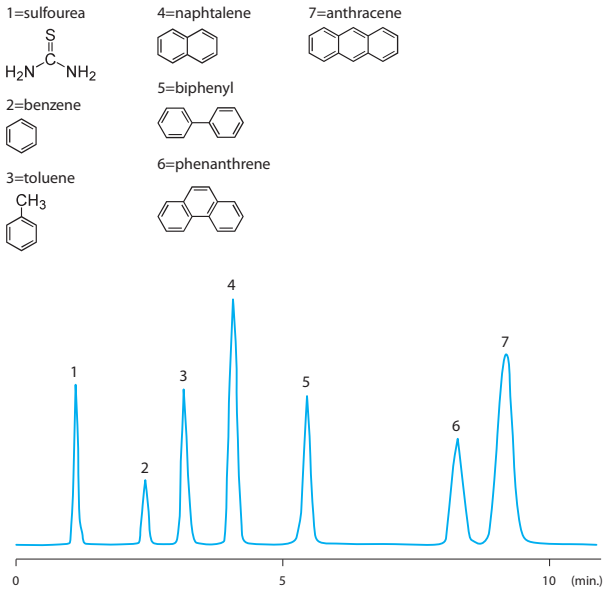
HPLC analysis of isomers of nitrotoluene and nitrobenzoic acid. (ref. 213)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 200 mm
Temperature: 35°C
Eluent: MeOH:water:THF (55:44:1; v:v:v) with b-cyclodextrin at pH 3.0
Flow rate: 0 – 4 min. 2 ml/min., 4 – 10 min. 2.6 ml/min.
Detection: UV 254 nm

Aromatics

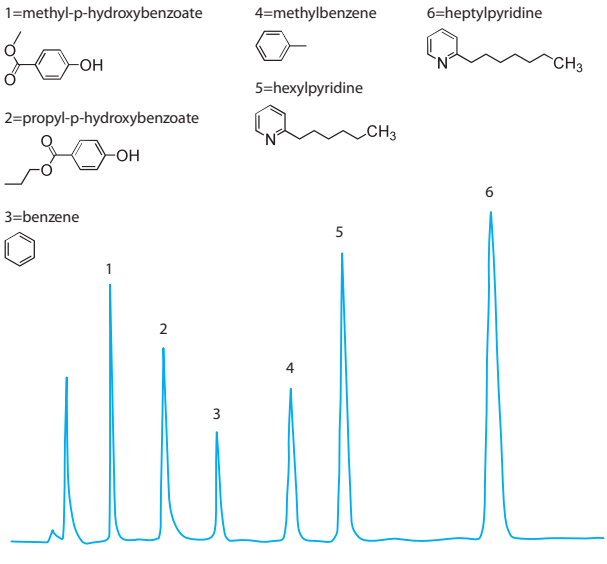
Determination of sulfonurea, benzene, toluene, naphtalene, biphenyl, phenanthrene, anthracene. (ref. 301a)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 0.8 x 150 mm
Eluent: MeOH:water (80:20; v:v)
Flow rate: 38 µl/min.
Detection: UV 254 nm

Aromatics

Separation of benzene and pyridine derivates. (ref. 40)

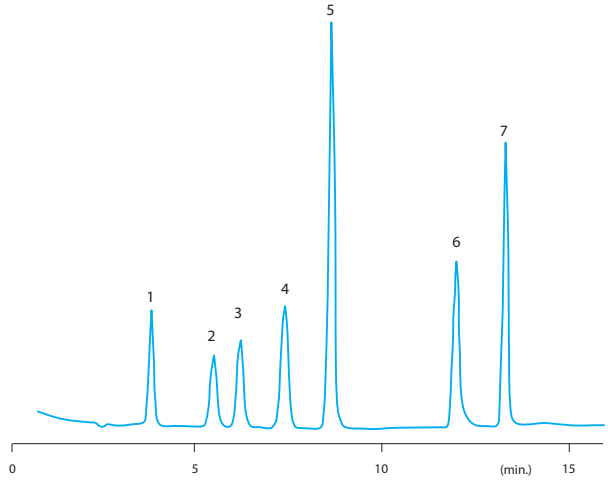


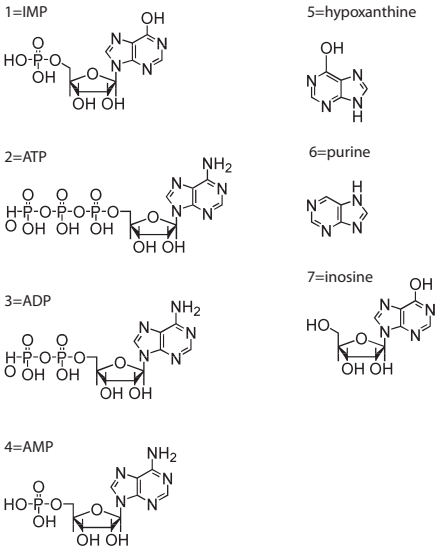
Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 150 mm
Eluent: ACN:water (56.9:43.1; v:v)
Flow rate: 1 ml/min.
Detection: UV 254 nm

OTHER

ATP degradation products

Determination of ATP degradation products from fish decomposition. (ref. 159)



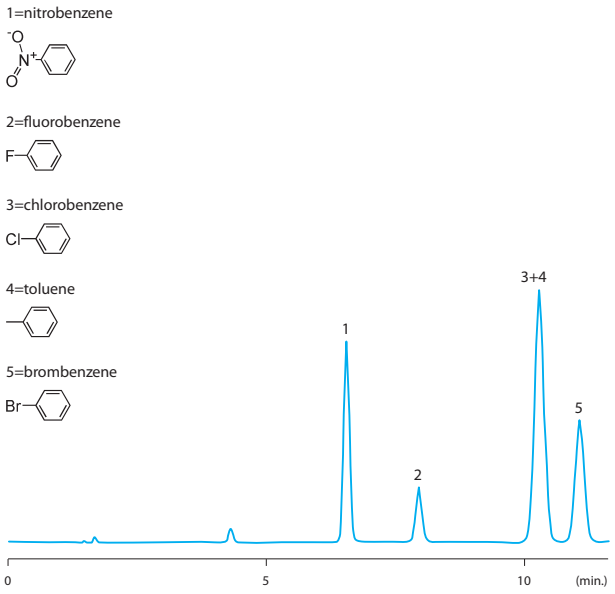


Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: 25°C
Eluents: Eluent A, ACN and eluent B, phosphate buffer (pH 7.00, 60 mM K_2HPO_4 + 40 mM KH_2PO_4)

Gradient: 0 min. 100% B, 4 min. 98% B, 5 min. 97% B, 8 min. 96% B, 15 min. 96% B, 15.01 min. 100% B
Flow rate: 1 ml/min.
Detection: UV 254 nm

Benzene, substituted

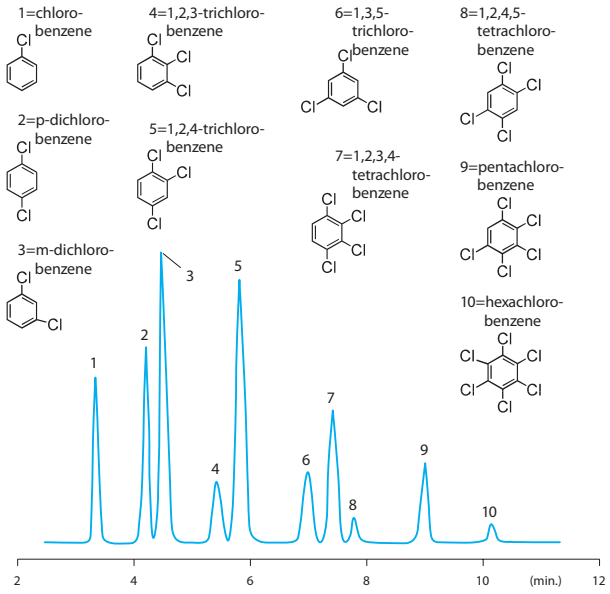
Separation of substituted benzene. (ref. 1)



Phase: Kromasil 100 Å, 5 µm, C8
Column: 4.6 x 250 mm
Temperature: 20°C
Eluent: ACN:water (60:40; v:v)
Flow rate: 1 ml/min.
Detection: UV 210 nm

Chlorinated benzenes

Determination of chlorobenzene and derivates. (ref. 301c)

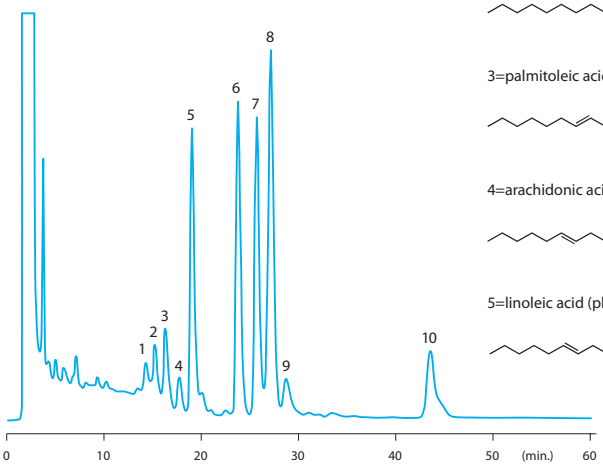


Phase: Kromasil 100 Å, 5 µm, C18
Column: 0.8 x 150 mm
Eluent: eluent A: ACN, eluent B: water
Gradient: 0 min. 80% A, 5 min. 80% A, 10 min. 100% A
Flow rate: 32 µl/min.
Detection: UV 220 nm

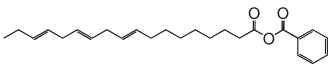
OTHER

Fatty acids

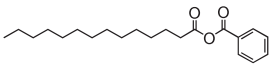
Analysis of plasma fatty acids as their phenacyl esters. (ref. 193)



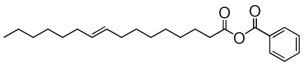
1=linolenic acid (phenacyl ester derivative)



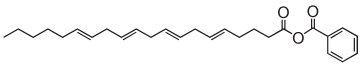
2=myristic acid (phenacyl ester derivative)



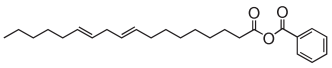
3=palmitoleic acid (phenacyl ester derivative)



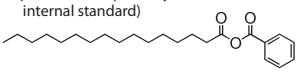
4=arachidonic acid (phenacyl ester derivative)



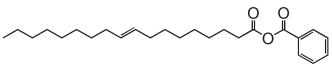
5=linoleic acid (phenacyl ester derivative)



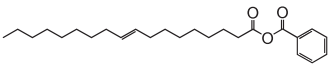
6=palmitic acid (phenacyl ester derivative, internal standard)



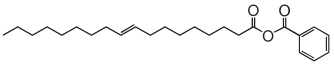
7=palmitic acid (phenacyl ester derivative)



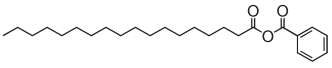
8=oleic acid (phenacyl ester derivative)



9=elaidic acid (phenacyl ester derivative)



10=stearic acid (phenacyl ester derivative)

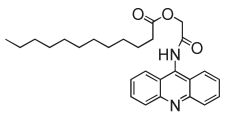


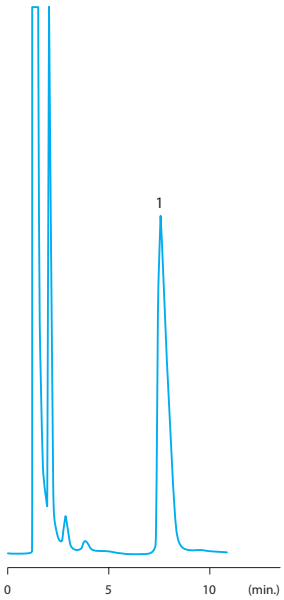
Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Temperature: ambient
Eluent: MeOH:water (91:9; v:v)
Flow rate: 1.15 ml/min.
Detection: UV 254 nm

Lauric acid

Detection of ester of lauric acid. (ref. 35)

1=fluorescent ester of lauric acid





Phase: Kromasil 100 Å, 7 µm, C18
Column: 4.6 x 150 mm
Eluent: ACN:MeOH:water (55:10:35; v:v:v)
0.2% phosphoric acid added
Flow rate: 1 ml/min.
Detection: fluorescence (λ_{ex} 357.5 nm and λ_{em} 482 nm)

Organic acids

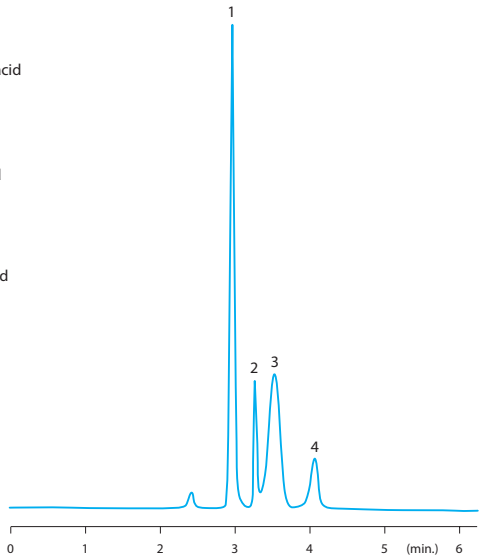
Separation of formic acid, benzoic acid, lactic acid, acetic acid. (ref. 344)

1=formic acid

2=benzoic acid

3=lactic acid

4=acetic acid



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4.6 x 250 mm
Eluent: KH_2PO_4-buffer (10 mM, pH 2.5):ACN (95:5; v:v)
Flow rate: 38 µl/min.
Detection: UV 254 nm

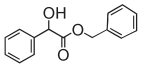
OTHER

QC test, neutral compounds

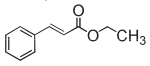
QC test of Kromasil CN. (ref. 341)

1=toluene

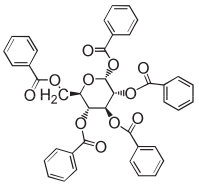
4=benzylmandelate



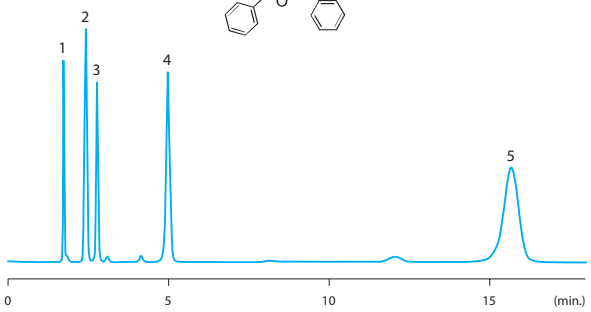
2=ethylcinnamate



5=glucosepentabenzoate



3=acetophenone



Phase: Kromasil 60 Å, 10 µm, CN
Column: 4.6 x 250 mm
Eluent: hexane:ethylacetate (90:10; v:v)
Flow rate: 2 ml/min.
Detection: UV 254 nm

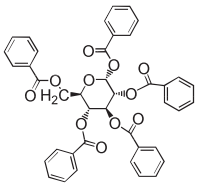
QC test, neutral compounds

QC test of Kromasil SIL. (ref. 346)

1=toluene

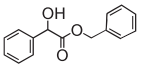
4=acetophenone

6=glucosepentabenzoate

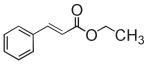


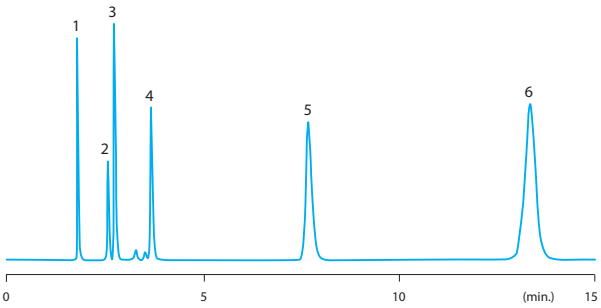
2=metabolite

5=benzylmandelate



3=ethylcinnamate





Phase: Kromasil 60 Å, 5 µm, SIL
Column: 4.6 x 250 mm
Eluent: hexane:ethylacetate (85:15; v:v)
Flow rate: 2 ml/min.
Detection: UV 254 nm

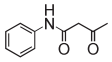
QC test, silanophilic compounds

QC test of Kromasil SIL. (ref. 345)

1=toluene

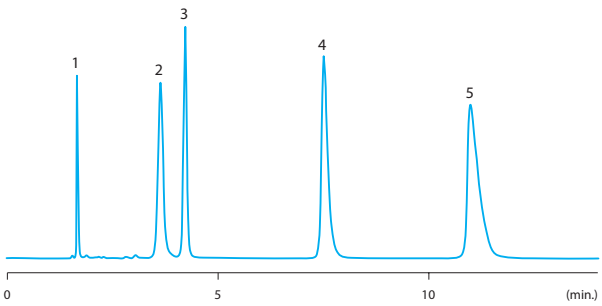
4=3-pyridylacetonitrile

2=acetoacetanilide



5=caffeine

3=quinoxaline

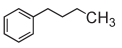


Phase: Kromasil 60 Å, 5 µm, SIL
Column: 4.6 x 250 mm
Eluent: MeCl $_2$:MeOH (98:2; v:v)
Flow rate: 2 ml/min.
Detection: UV 254 nm

QC test, substituted aromatic compounds

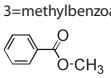
QC test of Kromasil NH2. (ref. 343)

1=butylbenzene



2=N,N-diethylaniline

3=methylbenzoate



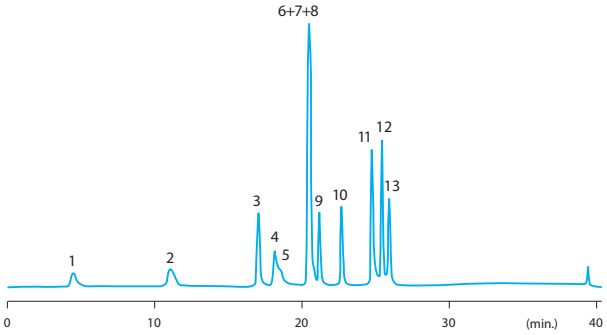
4=nitrobenzene

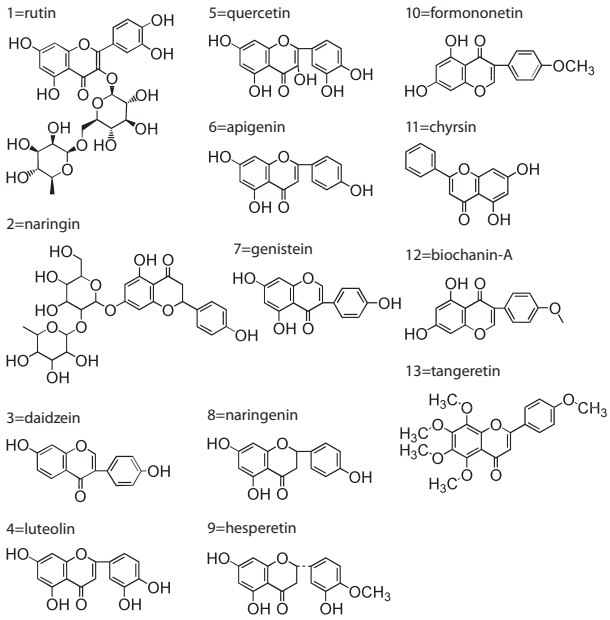
Phase: Kromasil 100 Å, 5 µm, NH2
Column: 4.6 x 250 mm
Eluent: hexane:MeCl $_2$ (97:3; v:v)
Flow rate: 1 ml/min.
Detection: UV 254 nm

OTHER

Flavonoid glycosides

Analysis of flavonoid glycosides. (ref. 100)



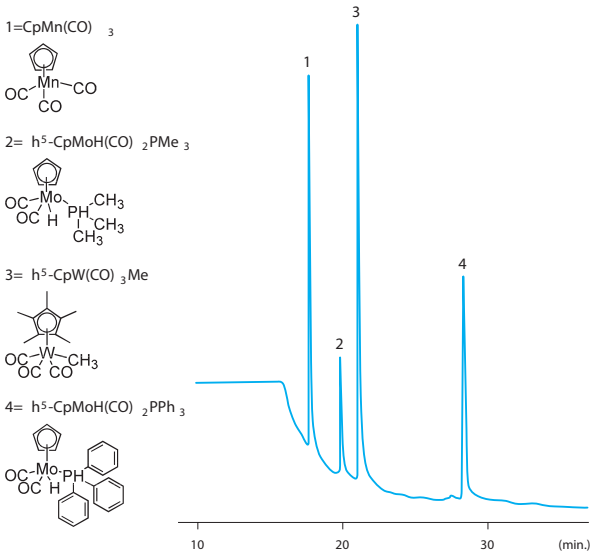


Phase: Kromasil 100 Å, 5 µm, C18
Column: 3.2 x 250 mm
Eluent: ACN:water
Gradient: 0 min. 20% ACN, 10 min. 20% ACN, 18 min. 40% ACN, 28 min. 75% ACN, 30 min. 100% ACN, 37 min. 100% ACN

Flow rate: 0.75 ml/min.
Detection: UV 280 nm

Organometallic catalysts

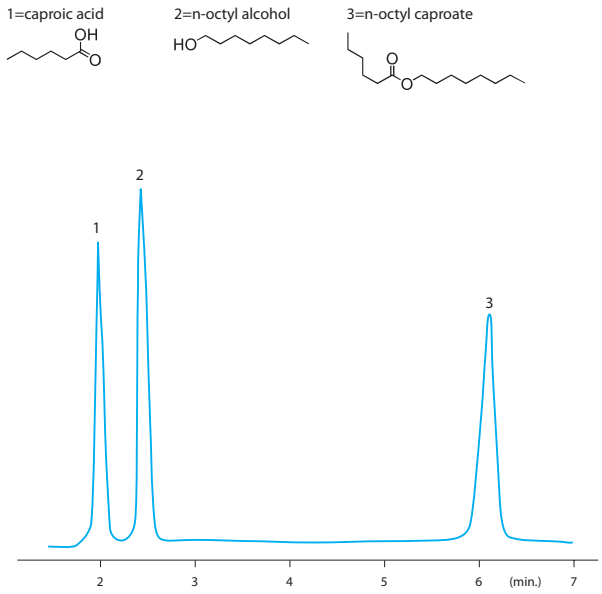
Purity testing of organometallic catalysts. (ref. 248)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 0.32 x 450 mm
Temperature: 60°C
Eluent: carbon dioxide
Flow rate: 7.2 µl/min.
Pressure: 100 bar (hold 10 min.) then 10 bar/min. until 180 bar (hold 1 min.), then 10 bar/min. until 300 bar (hold 1 min.), then 10 bar/min. until 400 bar (hold 10 min.)
Detection: FID

Surfactants

Determination of caproic acid, n-octyl alcohol and n-octyl caproate. (ref. 285)

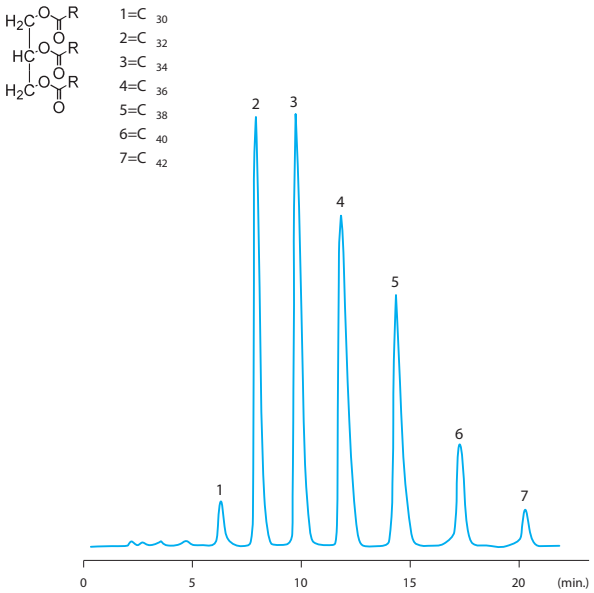


Phase: Kromasil 100 Å, 5 µm, C18
Temperature: 30°C
Column: 4.6 x 150 mm
Eluent: MeOH:water (95:5; v:v)
Flow rate: 1 ml/min.
Detection: refractive index

OTHER

Triacylglycerols

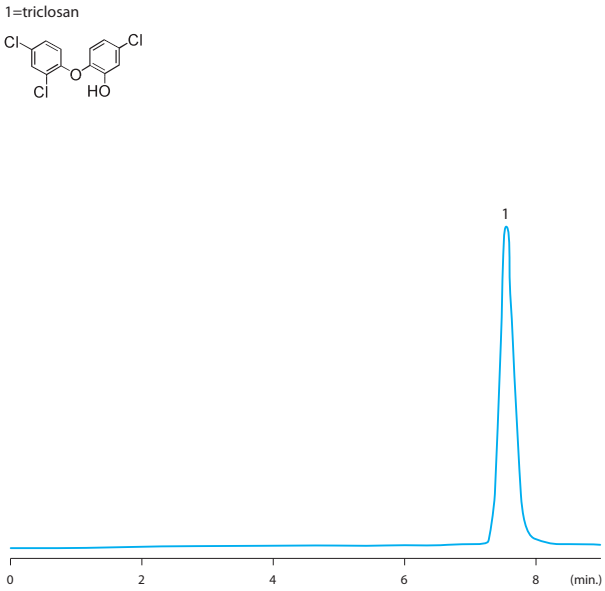
Analysis of seven triacylglycerols. (ref. 139)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 0.7 x 120 mm
Eluent: (A):ACN, (B):acetone
Gradient: stepwise: 0 – 5 min. 90% A, 5 – 25 min. 70% A, after 25 min. 40%A.
Flow rate: 5 – 100 µl/min (not specified)
Detection: ELS

Triclosan

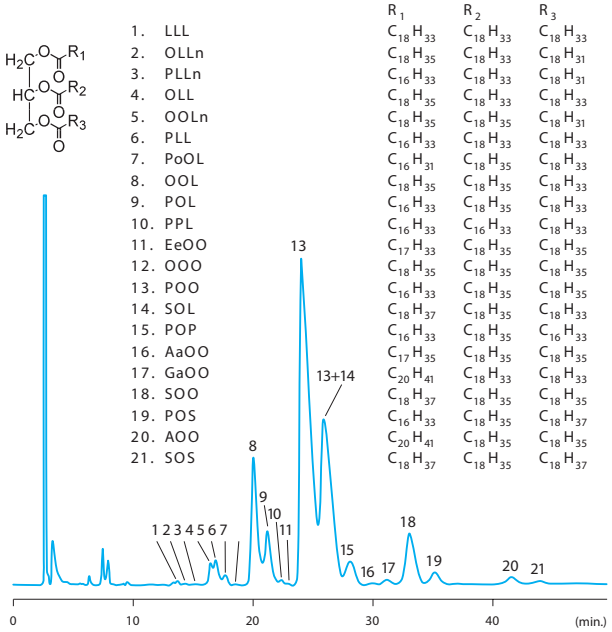
Determination and stability tests of triclosan in disinfectants. (ref. 8)



Phase: Kromasil 100 Å, 7 µm, C18
Column: 4.6 x 200 mm
Eluent: MeOH:ACN:water (40:40:20; v:v:v) containing 0.02 M KH_2PO_4 (pH 2.7)
Flow rate: 1 ml/min.
Detection: UV 280 nm

Triglycerides

Analysis of triglyceride profiles in Cretan olive oils. (ref. 96)



Phase: Kromasil 100 Å, 5 µm, C18
Column: 4 x 250 mm
Temperature: 40°C
Eluent: acetone:ACN (60:40; v:v)
Flow rate: 0.7 ml/min.
Detection: refractive index