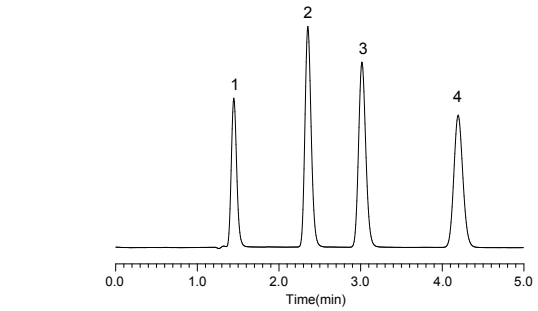
Pharmacopeia

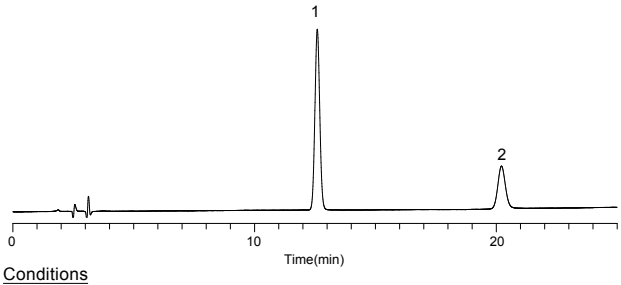
Para-Hydroxybenzonate (JP)



Conditions

Column	: Inertsil ODS-4(5 µm, 150 × 4.6 mm I.D.)	
Eluent	: A) CH_3OH	
	B) 50 mM KH_2PO_4	
	A/B = 13/7, v/v	
Flow Rate	: 1.3 mL/min	Sample :
Col. Temp.	: 35 °C	1. *p*-Hydroxybenzoic acid
Detection	: UV 272 nm	2. *p*-Hydroxybenzoic acid methyl ester
Injection Vol.	: 10 µL	3. *p*-Hydroxybenzoic acid ethyl ester
Data Source	: LC InertSearch No. LB097, LB098	4. *p*-Hydroxybenzoic acid *n*-propyl ester

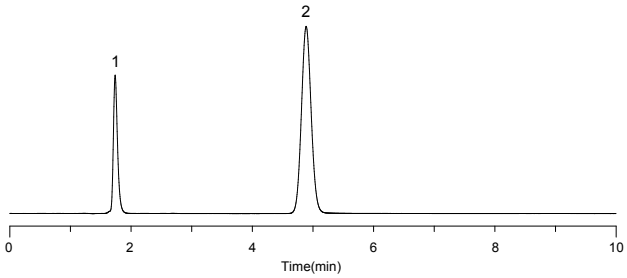
Crospovidone (JP)



Conditions

Column	: InertSustain C18 (5 µm, 250 × 4.0 mm I.D.)	
Guard Column	: InertSustain C18 (5 µm, 25 × 4.0 mm I.D.)	
Eluent	: A) CH_3CN	
	B) H_2O	
	A/B = 1/9, v/v	
Flow Rate	: 1.0 mL/min	
Col. Temp.	: 40 °C	
Detection	: UV 235 nm	Sample :
Injection Vol.	: 50 µL	1. 1-Vinyl-2-pyrrolidone
Data Source	: LC InertSearch No. LB167	2. Vinyl acetate

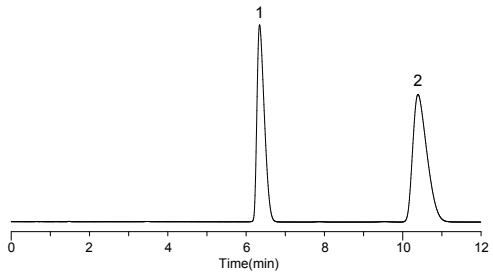
Losartan potassium and Hydrochlorothiazide (USP)



Conditions

Column	: Inertsil C8-3 (10 µm, 250 × 4.6 mm I.D.)	
Eluent	: A) CH_3CN	
	B) 10 mM KH_2PO_4 in H_2O (pH 2.5, H_3PO_4)	
	A/B = 40/60, v/v	
Flow Rate	: 2.3 mL/min	
Col. Temp.	: 35 °C	
Detection	: UV 230 nm	Sample :
Injection Vol.	: 20 µL	1. Hydrochlorothiazide (14 mg/L)
Data Source	: LC InertSearch No. LB200	2. Losartan potassium (55 mg/L)

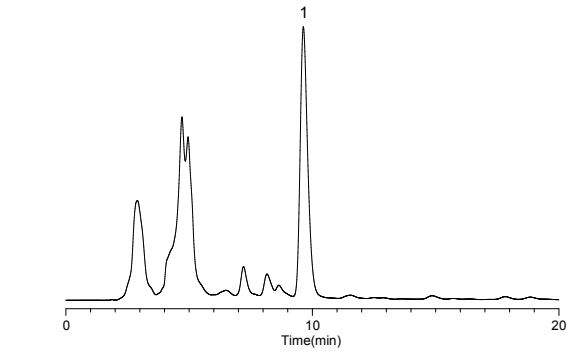
Carumonam Sodium (JP)



Conditions

Column	: Inertsil ODS-2 (5 µm, 150 × 4.0 mm I.D.)	
Eluent	: A) 0.1 g/L $(NH_4)_2SO_4$	
	B) CH_3OH	
	C) CH_3COOH	
	A/B = 97/2/1, v/v/v	
Flow Rate	: 1.4 mL/min	
Col. Temp.	: 25 °C	
Detection	: UV 254 nm	Sample :
Injection Vol.	: 10 µL	1. Resorcinol (1.8 mg/L)
Data Source	: LC InertSearch No. LA994	2. Carumonam sodium (0.4 mg/L)

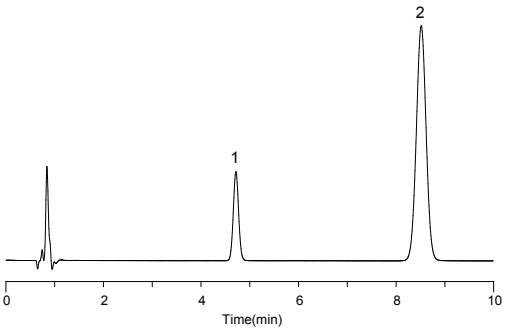
Glycyrrhetinic acid in Glycyrrhiza (JP)



Conditions

Column	: InertSustain C18(5 µm, 150 × 4.6 mm I.D.)	
Eluent	: A) CH_3CN	
	B) 2.1 % CH_3COOH in H_2O	
	A/B = 40/60, v/v	
Flow Rate	: 0.45 mL/min	
Col. Temp.	: 20 °C	
Detection	: UV 254 nm	
Injection Vol.	: 20 µL	Sample :
Data Source	: LC InertSearch No. LB182	1. Glycyrrhizic acid

Terbinafine Hydrochloride Cream (JP)



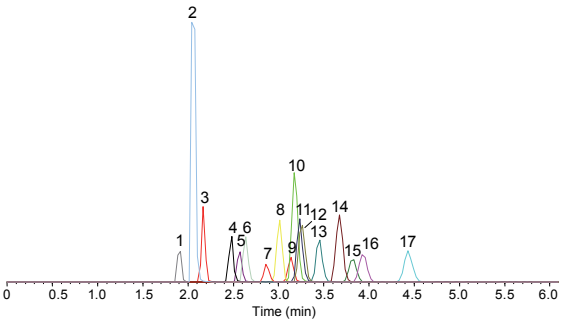
Conditions

Column	: InertSustainSwift C18 (5 µm, 125 × 4.0 mm I.D.)	
Eluent	: A) CH_3CN	
	B) 0.45 % Tetramethylammonium hydroxide in H_2O	
	(pH 8.0, 4 % H_3PO_4 in H_2O)	
	C) THF	
	A/B/C = 2/2/1, v/v/v	
Flow Rate	: 1.46 mL/min	
Col. Temp.	: 25 °C	Sample :
Detection	: UV 282 nm	1. *p*-Terphenyl (17.5 mg/L)
Injection Vol.	: 10 µL	2. Terbinafine hydrochloride (200 mg/L)

Applications

Pharmaceuticals

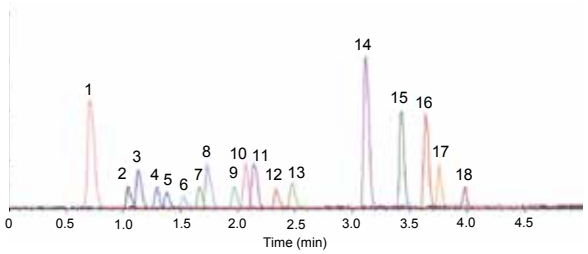
17 Anti-Depressant Drugs



Conditions

Column	: InertSustain C18 HP (3 µm,150 × 2.1 mm I.D.)	Sample :	
Eluent	: A) 0.1 % HCOOH in CH_3CN	1. Sulpiride	10. Imipramine
	B) 0.1 % HCOOH in H_2O	2. Milnacipran	11. Nortriptyline
	A/B = 2/98 - 0.5 min - 40/60	3. Trazodone	12. Maprotiline
	- 5.5 min - 40/60, v/v	4. Mianserin	13. Amitriptyline
Flow Rate	: 0.4 mL/min	5. Amoxapine	14. Trimipramine
Col. Temp.	: 40 °C	6. Doxepin	15. Fluoxetine
Detection	: LC/MS/MS (4000 QTRAP : ESI, Positive, MRM)	7. Paroxetine	16. Sertraline
		8. Desipramine	17. Clomipramine
Injection Vol.	: 5 µL	9. Fluvoxamine	(100 ng/mL each)
Data Source	: LC InertSearch No. LA908		

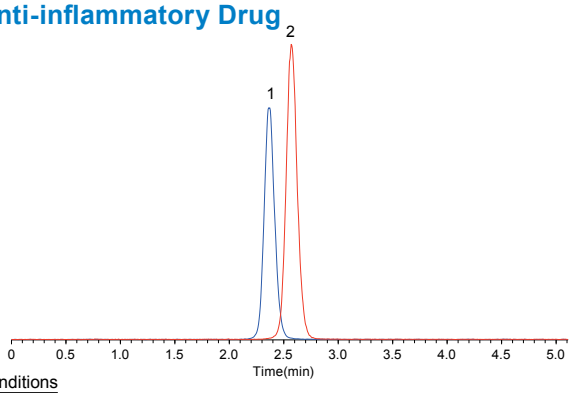
18 Drugs



Conditions

Column	: Inertsil ODS-3 (2 µm, 50 × 2.1 mm I.D)	Sample :	
Eluent	: A) CH_3CN	1. Ranitidine	10. Diphenhydramine
	B) 0.05 % HCOOH in H_2O	2. Scopolamine	11. Doxepin
	A/B = 5/95 - 5 min - 95/5, v/v	3. Naltrexone	12. Amitriptyline
Flow Rate	: 500 µL/min	4. Acetaminophen	13. Reserpine
Col. Temp.	: 40 °C	5. Theophyline	14. Isopropylantipyrine
Detection	: LC/MS/MS (4000 QTRAP : ESI, Positive, MRM)	6. Metoprolol	15. Ketoprofen
		7. Caffeine	16. Warfarin
Injection Vol.	: 10 µL	8. Chlorpheniramine	17. Capsaicin
		9. Propranolol	18. Dihydrocapsaicin

Anti-inflammatory Drug

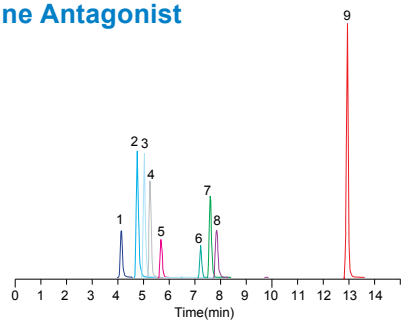


Conditions

Column	: InertSustain Phenyl (2 µm, 50 × 2.1 mm I.D.)
Eluent	: A) CH_3OH/HCOOH = 100/0.05, v/v
	B) H_2O/HCOOH = 100/0.05, v/v
	A/B = 40/60, v/v
Flow Rate	: 0.6 mL/min
Col. Temp.	: 40 °C
Detection	: LC/MS/MS (4000 QTRAP:ESI, Positive, MRM)
Injection Vol.	: 5 µL
Data Source	: LC InertSearch No. LB198

Sample :
1. Hydrocortisone
2. Prednisolone (0.1 mg/L each)

Histamine Antagonist

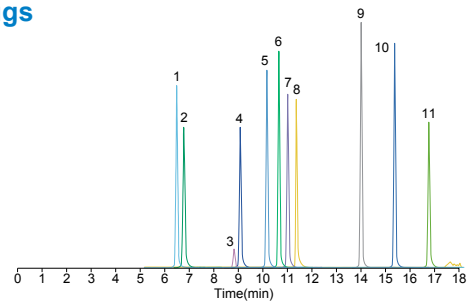


Conditions

Column	: Inertsil ODS-4 (3 µm, 150 × 2.1 mm I.D.)
Eluent	: A) CH_3OH
	B) 2 mM CH_3COONH_4
	A/B = 40/60 - 10 min - 95/5
	- 2 min - 95/5, v/v
Flow Rate	: 0.2 mL/min
Col. Temp.	: 40 °C
Detection	: LC/MS/MS (4000 QTRAP : ESI, Positive, MRM)
Injection Vol.	: 10 µL
Data Source	: LC InertSearch No. LA678

Sample :
1. Chlorpheniramine
2. Cinnarizin
3. Clemastine
4. Difenidol
5. Diphenhydramine
6. Diphenylpyraline
7. Hydroxyzine
8. Promethazine
9. Triprolidine (0.1 mg/L each)

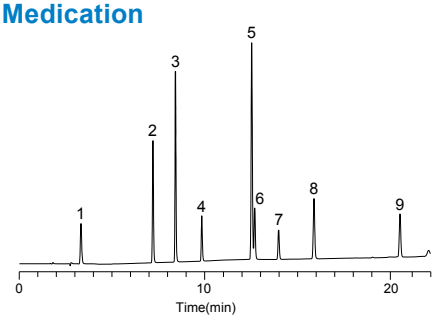
11 Drugs



Conditions

Column	: Inertsil ODS-3 (3 µm, 100 × 2.1 mm I.D.)	Sample :	
Eluent	: A) CH_3CN	1. Sulbutamol	(7.5 µg/L)
	B) 0.1 % HCOOH in H_2O	2. Ranitidine	(15.0 µg/L)
	A/B = 0/100 - 6 min - 10/90	3. Acetaminophen	(15.0 µg/L)
	- 12 min - 100/0, v/v	4. Theophylline	(20.0 µg/L)
Flow Rate	: 0.2 mL/min	5. Metoprolol	(22.5 µg/L)
Col. Temp.	: 40 °C	6. Caffeine	(15.0 µg/L)
Detection	: LC/MS/MS (4000 QTRAP : ESI, Positive, MRM)	7. Propranolol	(12.5 µg/L)
		8. Doxepin	(5.0 µg/L)
Injection Vol.	: 10 µL	9. Carbamazepine	(5.0 µg/L)
Data Source	: LC InertSearch No. LA610	10. Ketoprofen	(15.0 µg/L)
		11. Indomethacin	(20.0 µg/L)

Cold Medication



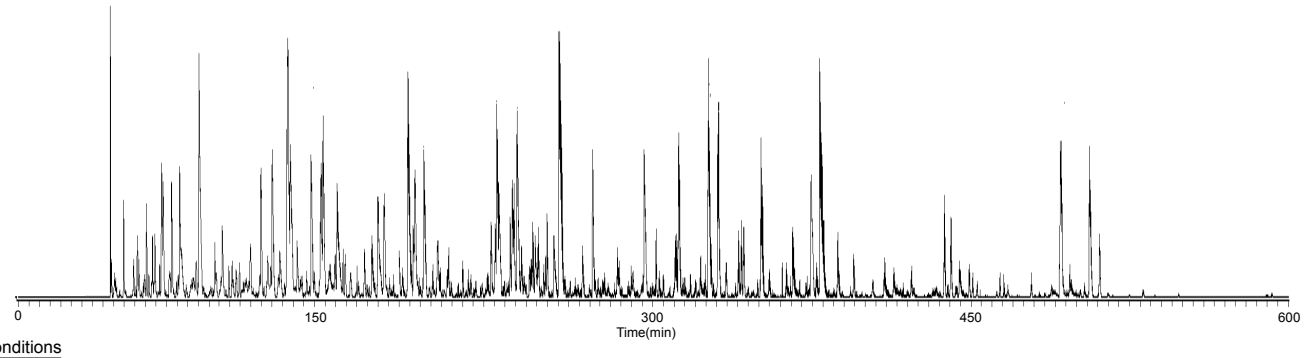
Conditions

Column	: Inertsil ODS-4 (5 µm, 150 × 4.6 mm I.D.)
Eluent	: A) CH_3CN
	B) 0.1 % H_3PO_4 in H_2O
	A/B = 3/97 - 20 min
	- 75/25, v/v
Flow Rate	: 1.0 mL/min
Col. Temp.	: 40 °C
Detection	: UV 210 nm
Injection Vol.	: 10 µL
Data Source	: LC InertSearch No. LA616

Sample :
1. Maleic acid
2. Acetaminophen
3. Caffeine
4. Chlorpheniramine
5. Ethenzamide
6. Bromovalerylurea
7. Apronalide
8. Isopropylantipyrine
9. Ibuprofen (50 mg/L each)

Biochemicals

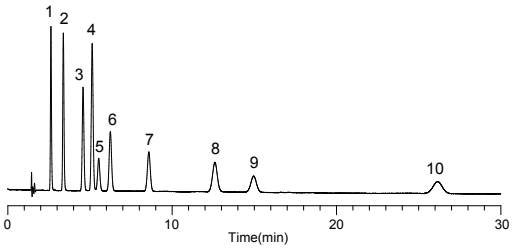
Trypsin Digest of the Protein



Conditions

Column	: MonoCap C18 High Resolution 2000 (2000 mm × 0.1 mm I.D.)
Trap Column	: MonoCap C18 Trap Column (50 mm × 0.075 mm I.D.)
Eluetnt	: A) 0.1 % HCOOH in CH_3CN , B) 0.1 % HCOOH in H_2O
	A/B=10/90 - 600 min - 45/55, v/v
Flow Rate	: 0.5 µL/min
Col. Temp.	: ambient
Detection	: LC/MS/MS (JMS-T100-LC, JEOL, TIC, m/z 500-1500)
Injection Vol.	: 5 µL
Sample	: tryptic digest of proteins

Nucleoside and Nucleic acid base



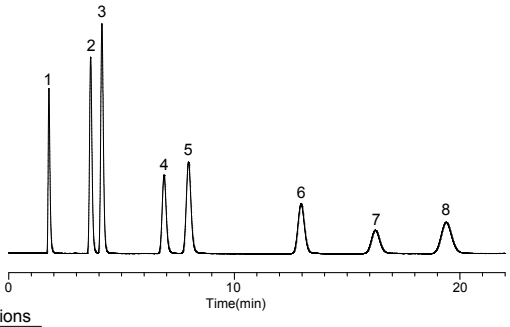
Conditions

Column	: InertSustain C18 (5 µm, 150 × 4.6 mm I.D.)
Eluent	: 0.1 M NH_2PO_4, 0.2 M $NaClO_4$ (pH 2.03, H_3PO_4)
Flow Rate	: 1.0 mL/min
Col. Temp.	: 40 °C
Detection	: UV 260 nm
Injection Vol.	: 1 µL
Data Source	: LC InertSearch No. LA895

Sample :

1. Cytosine	6. Uridine
2. Uracil	7. Thymine
3. Guanine	8. Adenosine
4. Adenine	9. Guanosine
5. Cytidine	10. Thymidine

Nucleic acid base

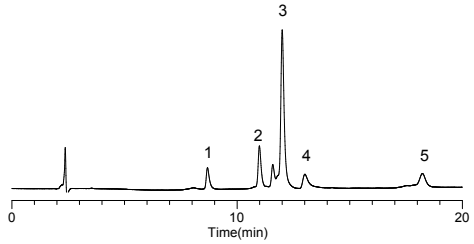


Conditions

Column	: Inertsil Amide (5 µm, 250 × 4.6 mm I.D.)
Eluent	: A) CH_3CN
	B) 10 mM $HCOONH_4$
	A/B = 90/10, v/v
Flow Rate	: 0.2 mL/min
Col. Temp.	: 35 °C
Detection	: UV 254 nm
Injection Vol.	: 1 µL
Data Source	: LC InertSearch No. LB001

Sample :
1. Toluene
2. Thymine
3. Uracil
4. Uridine
5. Adenosine
6. Cytosine
7. Cytidine
8. Guanosine
(10 mg/L each)

Protein

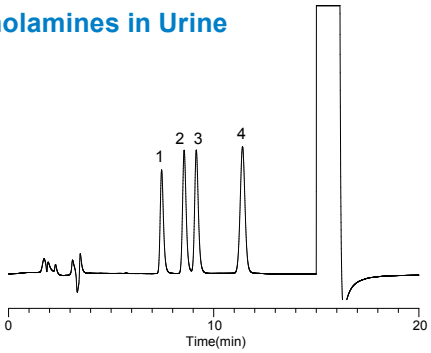


Conditions

Column	: Inertsil WP300 C18 (5 µm, 150 × 3.0 mm I.D.)
Eluent	: A) 0.1 % TFA in CH_3CN
	B) 0.1 % TFA in H_2O
	A/B = 20/80 - 20 min - 70/30, v/v
Flow Rate	: 0.4 mL/min
Col. Temp.	: 40 °C
Detection	: UV 280 nm
Injection Vol.	: 10 µL
Data Source	: LC Technical Note No. 116

Sample :
1. Ribonuclease B
2. Cytochrome c
3. Lysozyme
4. BSA
5. Ovalbumin

Catecholamines in Urine



Conditions

Column	: Inertsil ODS-4
	(5 µm, 250 × 3.0 mm I.D.)
Eluent	: A) Acetate-citrate buffer *
	: B) CH_3CN
	A/B = 100/16, v/v
Flow Rate	: 0.5 mL/min
Col. Temp	: 35 °C
Detection	: ECD 800 mV vs. Ag/AgCl
Injection Vol.	: 20 µL
Data Source	: LC Technical Note No. 93

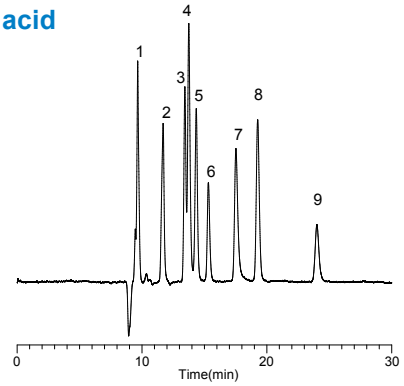
Sample :
1. Norepinephrine (NE)
2. Epinephrine (E)
3. 3,4-dihydroxybenzylamine (DHBA, I.S.)
4. Dopamine (DA)
(100 ng/mL in 0.1 % Acetic acid solution each)

* : Acetate-citrate buffer :
Dissolve 0.82 g of anhydrous sodium acetate, 2.10 g of citric acid monohydrate and 0.50 g of sodium 1-octanesulfonate in 500mL of H_2O.

Applications

Foods

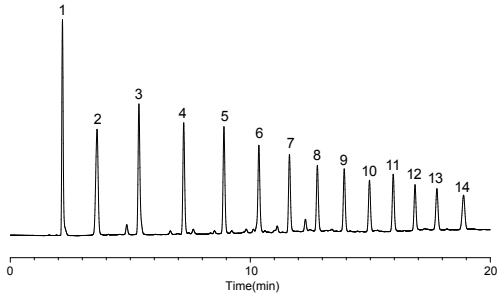
Organic acid



Conditions

Column	: Inertsil Ph-3 (5 µm, 250 × 4.6 mm I.D.) + Inertsil CX (5 µm, 250 × 4.6 mm I.D.)	Sample:	
Eluent	: 3 mM $HClO_4$ in H_2O	1. Phosphoric acid	6. Lactic acid
Reaction Reagent	: 0.1 mM BTB + 30 mM Na_2HPO_4 in H_2O	2. Tartaric acid	7. Acetic acid
Flow Rate	: 0.5 mL/min	3. Malic acid	8. Succinic acid
Col. Temp.	: 35 °C	4. Formic acid	9. Pyroglutamic acid
Detection	: VIS 440 nm	5. Citric acid	(1 mg/mL each)
Injection Vol.	: 10 µL		
Data Source	: LC Technical Note No. 24		

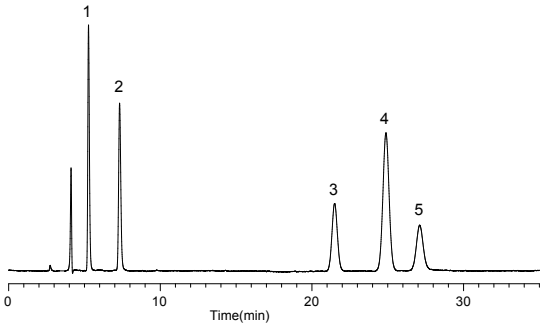
Linear Fatty acids



Conditions

Column	: InertSustain C18 (5 µm, 150 × 4.6 mm I.D)		
Eluent	: A) 0.1 % H_3PO_4 in CH_3CN B) 0.1 % H_3PO_4 in H_2O A/B = 10/90 -15 min - 90/10 -10 min - 90/10, v/v	Sample :	
		1. Acetic acid (C2)	9. Capric acid (C10)
		2. Propionic acid (C3)	10. Undecanoic acid (C11)
		3. Butyric acid (C4)	11. Lauric acid (C12)
Flow Rate	: 1.0 mL/min	4. Valeric acid (C5)	12. Tridecanoic acid (C13)
Col. Temp.	: 40 °C	5. Caproic acid (C6)	13. Myristic acid (C14)
Detection	: UV 210 nm	6. Enanthic acid (C7)	14. Pentadecanoic acid (C15)
Injection Vol.	: 10 µL	7. Caprylic acid (C8)	(1 mg/mL each)
Data Source	: LC InertSearch No. LA901	8. Pelargonic acid (C9)	

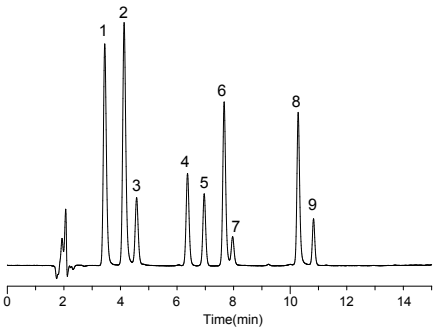
Preservatives and Sweetener



Conditions

Column	: InertSustain Phenyl (5 µm, 250 × 4.6 mm I.D.)	Sample :
Eluent	: A)CH_3CN B)0.2 % HCOOH in H_2O A/B = 15/85, v/v	1. Acesulfame potassium
		2. Saccharin
		3. Sorbic acid
		4. Benzoic acid
Flow Rate	: 1.0 mL / min	5. Dehydroacetic acid (10 mg/L each)
Col. Temp.	: 25 °C	
Detection	: UV 230 nm	
Injection Vol.	: 10 µL	
Data Source	: LC InertSearch No. LB031	

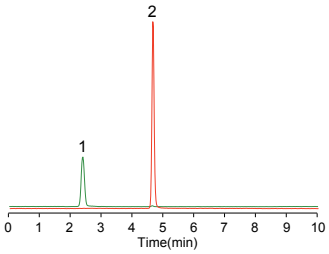
Phenolic Antioxidants



Conditions

Column	: Inertsil Ph-3 (5 µm, 150 × 4.6 mm I.D.)	Sample :
Eluent	: A) CH_3OH B) CH_3CN C) 5 % Acetic acid A/B/C = 20/20/60 - 15 min - 50/50/0, v/v/v (Mixed by a gradient mixer)	1. Propyl gallate (PG)
		2. 2,4,5-Trihydroxybutyrophenone (THBP)
		3. tert-Butylhydroquinone (TBHQ)
		4. Nordihydroguaiaretic acid (NDGA)
		5. Butylated Hydroxyanisole (BHA)
Flow Rate	: 1.0 mL/min	6. Octyl gallate (OG)
Col. Temp.	: 40 °C	7. 4-Hydroxymethyl-2,6-di-tert-butylphenol (HMBP)
Detection	: UV 280 nm	8. Dodecyl gallate (DG)
Injection	: 10 µL	9. Butylated hydroxytoluene (BHT) (10 mg/L each)
Data Source	: LC Technical Note No. 65	

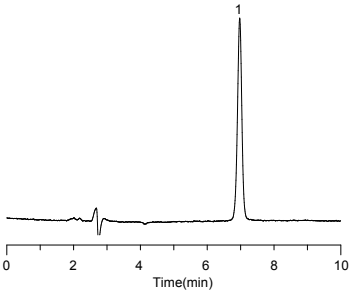
Cyanoguanidine and Melamine in Food



Conditions

Column	: Inertsil HILIC (5 µm, 150 × 3.0 mm I.D.)	Sample :
Eluent	: A) CH_3CN B) 10 mM Ammonium acetate A/B = 90/10 - 0.5 min - 90/10 - 5.5 min - 50/50 , v/v	1. Cyanoguanidine (20 µg/L)
		2. Melamine (10 µg/L)
Flow Rate	: 0.5 mL/min	
Col. Temp.	: 40 °C	
Detection	: LC/MS/MS (4000 QTRAP : ESI, Positive, MRM)	
Injection Vol.	: 5.0 µL	
Data Source	: LC Technical Note No.132	

Oxalic acid in Food

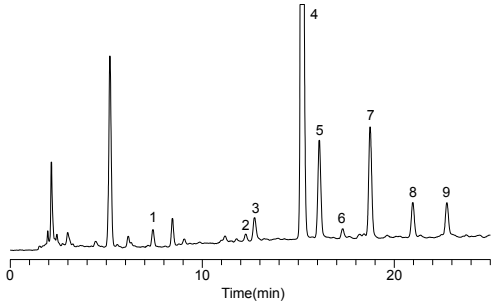


Conditions

Column	: Inertsil Amide (5 µm, 250 × 4.6 mm I.D.)	Sample :
Eluent	: A) CH_3CN B) 30 mM Na_2HPO_4 in H_2O (pH 6.8, H_3PO_4) A/B = 65/35, v/v	1. Oxalic acid (100 mg/L)
Flow Rate	: 1.0 mL/min	
Col. Temp.	: 50 °C	
Detection	: UV 220 nm	
Injection	: 5 µL	
Data Source	: LC Technical Note No.109	

Foods

Canthaxanthin in Tea

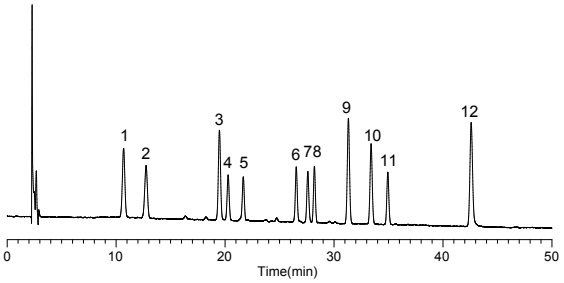


Conditions

Column : Inertsil ODS-3(4 µm, 150 × 4.6 mm I.D.)
Eluent : A) CH_3OH
B) 10 mM NaH_2PO_4 in H_2O
A/B = 10/90 - 30 min - 50/50, v/v
Flow Rate : 1.0 mL/min
Col. Temp. : 40 °C
Detection : UV 280 nm
Injection Vol. : 10 µL
Data Source : LC InertSearch No. LA684

Sample :
1. Gallocatechin (GC)
2. Epigallocatechin (EGC)
3. Catechin (C)
4. Caffeine
5. Epigallocatechin gallate (EGCg)
6. Epicatechin (EC)
7. Gallocatechin gallate (GCg)
8. Epicatechin gallate (ECg)
9. Catechin gallate (Cg)

Isoflavones

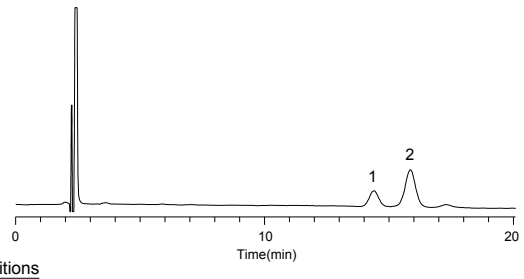


Conditions

Column : Inertsil ODS-SP (5 µm, 250 × 4.6 mm I.D.)
Eluent : A) 0.1 % CH_3COOH in CH_3CN
B) 0.1 % CH_3COOH in H_2O
A/B = 15/85 - 8 min
- 15/85 - 42 min - 35/65, v/v
Flow Rate : 1.5 mL/min
Col. Temp. : 35 °C
Detection : PDA 254 nm
Injection : 10 µL
Data Source : LC Technical Note No. 66

Sample :
1. Daidzin (D)
2. Glycitin (Gl)
3. Genistin (G)
4. 6"-O-Malonyldaidzin (MD)
5. 6"-O- Malonylglycitin (MGl)
6. 6"-O- Acetyldaidzin (AD)
7. 6"-O- Acetylglycitin (AGl)
8. 6"-O- Malonylgenistin (MG)
9. Daizein (De)
10. Glycitein (Gle)
11. 6"-O- Acetylgenistin (AG)
12. Genistein (Ge)
(10 mg/L each)

Carotene in Food

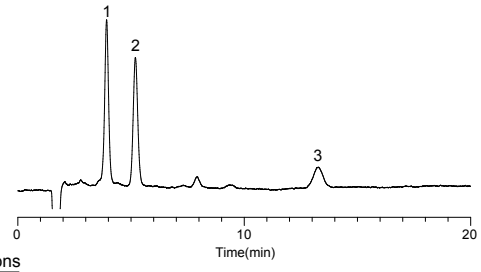


Conditions

Column : Inertsil ODS-P
(5 µm, 250 × 4.6 mm I.D.)
Eluent : A) CH_3OH
B) Ethanol
A/B = 90/10, v/v
Flow Rate : 1.0 mL/min
Col. Temp. : 40 °C
Detection : VIS 455 nm
Injection Vol. : 20 µL
Data Source : LC Technical Note No.28

Sample :
1. α-Carotene
2. β-Carotene

Tetracycline



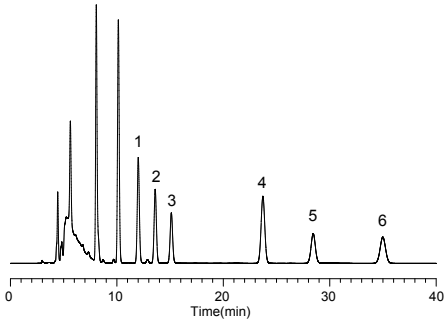
Conditions

Column : InertSustain C18
(5 µm, 150 × 4.6 mm I.D.)
Eluent : A) Imidazole buffer*
B) CH_3OH
A/B = 80/20, v/v (Premix)
Flow Rate : 1.0 mL/min
Col. Temp. : 40 °C
Detection : FL Ex 380 nm Em 520 nm
Injection Vol. : 20 µL

Sample :
1. Oxytetracycline
2. Tetracycline
3. Chlortetracycline
(1 mg/L each)

* Imidazole buffer :
Dissolve 68.08 g of imidazole, 0.37 g of disodium ethylenediaminetetraacetate and 10.72 g of magnesium acetate in 800 mL of H_2O.
Adjust to pH 7.2 with acetic acid and dilute this solution to 1,000 mL with H_2O.

Putrefactive Non-Volatile Amines in Food by Pre-column HPLC



Conditions

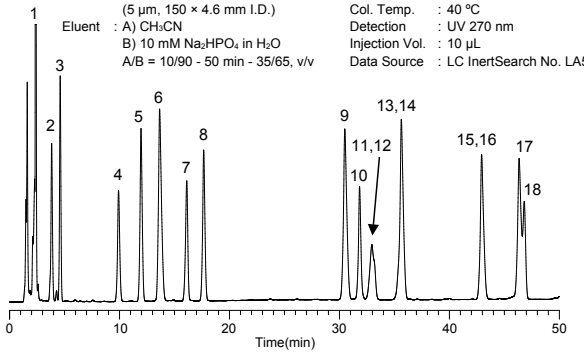
Column : Inertsil ODS-SP (5 µm, 250 × 4.6 mm I.D.)
Guard Column : Inertsil ODS-SP (5 µm, 10 × 4.0 mm I.D.)
Eluent : A) CH_3CN B) H_2O A/B= 65/35, v/v
Flow Rate : 1.0 mL/min
Col. Temp. : 40 °C
Detection : FL Ex 325 nm Em 525 nm
Injection : 10 µL
Data Source : LC Technical Note No. 48

Sample :
1. Putrescine (5 mg/L)
2. Cadaverine (5 mg/L)
3. Histamine (100 mg/L)
4. 1,8-Diaminooctane (10 mg/L)
5. Tyramine (25 mg/L)
6. Spermidine (5 mg/L)

Food Dyes

Conditions

Column : Inertsil ODS-3
(5 µm, 150 × 4.6 mm I.D.)
Eluent : A) CH_3CN
B) 10 mM Na_2HPO_4 in H_2O
A/B = 10/90 - 50 min - 35/65, v/v
Flow Rate : 1.0 mL/min
Col. Temp. : 40 °C
Detection : UV 270 nm
Injection Vol. : 10 µL
Data Source : LC InertSearch No. LA509

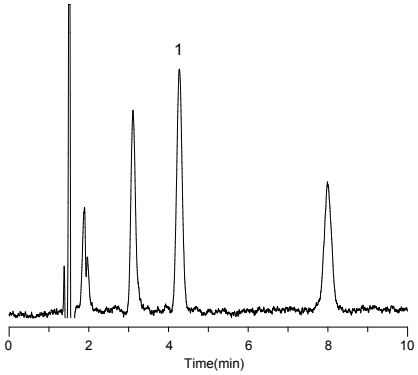


Sample :
1. Tartrazine (Food Yellow No. 4, 7.6 mg/L)
2. Amaranth (Food Red No. 2, 3.8 mg/L)
3. Ingigocarmine (Food Blue No. 2, 7.6 mg/L)
4. New coccine (Food Red No. 102, 3.8 mg/L)
5. Sunset Yellow FCF (Food Yellow No. 5, 5.3 mg/L)
6. Naphthol Yellow S (7.6 mg/L)
7. Uranine (3.8 mg/L)
8. Allura red AC (5.3 mg/L)
9. Ponceau R (7.6 mg/L)
10. Ponceau SX (5.3 mg/L)
11. Orange I (5.3 mg/L)
12. Fast green FCF (Food Green No. 3, 3.0 mg/L)
13. Brilliant blue FCF (Food Blue No. 1, 3.0 mg/L)
14. Ponceau 3R (7.6 mg/L)
15. Erythrosine (Food Red No. 3, 5.3 mg/L)
16. Azure Blue VX (Sulfan blue, 3.0 mg/L)
17. Orange II (7.6 mg/L)
18. Acid red (Food Red No. 106, 3.0 mg/L)

Applications

Environmental

Non-ionic Surfactant

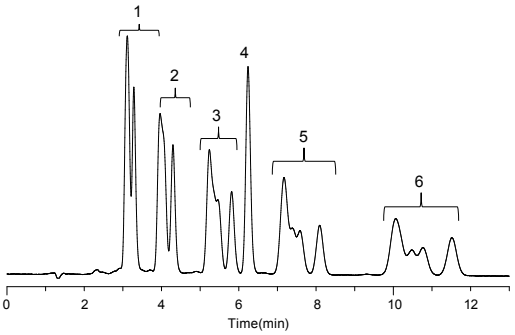


Conditions

Column : InertSustain C18 (5 µm, 150 × 4.6 mm I.D.)
Eluent : A) CH_3OH B) 10 mM Na_2B4O_7 in H_2O A/B = 38/62, v/v
Flow Rate : 1.0 mL/min
Col. Temp. : 40 °C
Detection : UV 510 nm
Injection Vol. : 20 µL
Data Source : LC InertSearch No. LA974

Sample :
1. Heptaoxyethylene dodecyl ether [Deriv.](0.002 mg/L)

Anion Surfactant (Toluene addition sample)

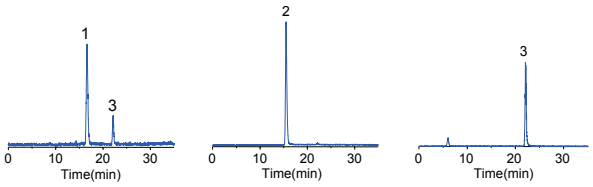


Conditions

Column : Inertsil ODS-3 (5 µm, 150 × 4.6 mm I.D.)
Eluent : 0.1 M $NaClO_4$ in CH_3CN/H_2O = 65/35, v/v
Flow Rate : 1.0 mL/min
Col. Temp. : 40 °C
Detection : FL Ex 221 nm Em 284 nm
Injection Vol. : 10 µL
Data Source : LC Technical Note No. 102

Sample :
1. Sodium Decylbenzenesulfonate(C10)
2. Sodium Undecylbenzenesulfonate(C11)
3. Sodium Dodecylbenzenesulfonate(C12)
4. Toluene
5. Sodium Tridecylbenzenesulfonate(C13)
6. Sodium Tetradecylbenzenesulfonate(C14) (1 mg/L each)

Haloacetic acids

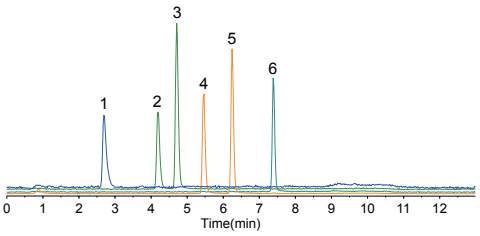


Conditions

Column : InertSustain C18 (3 µm, 150 × 4.6 mm I.D.)
Eluent : A) CH_3OH
B) 0.2 % HCOOH in H_2O
A/B = 5/95 - 38 min - 100/0 -12 min - 100/0, v/v
Flow Rate : 0.2 mL/min
Col. Temp. : 30 °C
Detection : LC/MS/MS (4000 QTRAP : ESI, Negative, MRM)
Injection Vol. : 100 µL
Data Source : LC Technical Note No. 125

Sample :
1. Monochloroacetic acid (MCAA)(2 µg/L)
2. Dichloroacetic acid (DCAA)(4 µg/L)
3. Trichloroacetic acid (TCAA)(20 µg/L)

Chlorophenol

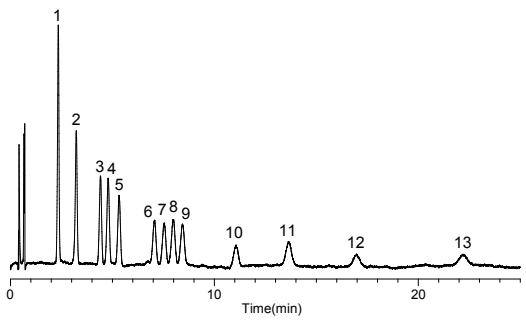


Conditions

Column : InertSustain C18 HP (3 µm, 100 × 2.1 mm I.D.)
Eluent : A) CH_3OH
B) CH_3OH/H_2O = 10/90, v/v
A/B = 40/60 - 8 min - 90/10 - 0.5 min - 90/10 - 0.1 min - 40/60 - 5 min - 40/60, v/v
Flow Rate : 0.3 mL/min
Col. Temp. : 40 °C
Detection : LC/MS (4000 QTRAP : APCI, Neg, SIM)
Injection Vol. : 25 µL

Sample :
1. Phenol
2. 2-Chlorophenol
3. 4-Chlorophenol
4. 2,6-Chlorophenol
5. 2,4-Chlorophenol
6. 2,4,6-Chlorophenol (0.83 µg/L in H_2O each)

13 Kinds of Aldehydes

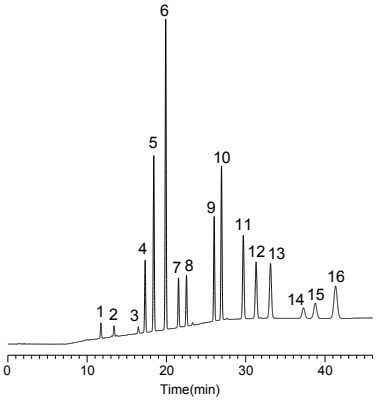


Conditions

Column : InertSustain C18 HP (3 µm, 150 × 3.0 mm I.D.)
Eluent : A) CH_3CN
B) H_2O
C) THF
A/B/C = 35/55/10, v/v/v
Flow Rate : 1.5 mL/min
Col. Temp. : 40 °C
Detection : UV 360 nm
Injection Vol. : 10 µL
Data Source : LC InertSearch No. LA962

Sample :
1. DNPH-Formaldehyde
2. DNPH-Acetaldehyde
3. DNPH-Acetone
4. DNPH-Acrolein
5. DNPH-Propionaldehyde
6. DNPH-Crotonaldehyde
7. DNPH-Methylethylketone
8. DNPH-Methacrolein
9. DNPH-n-Butyraldehyde
10. DNPH-Benzaldehyde
11. DNPH-n-Valeraldehyde
12. DNPH-m-Tolualdehyde
13. DNPH-Hexanal (150 µg/L each)

Aromatic Hydrocarbons



Conditions

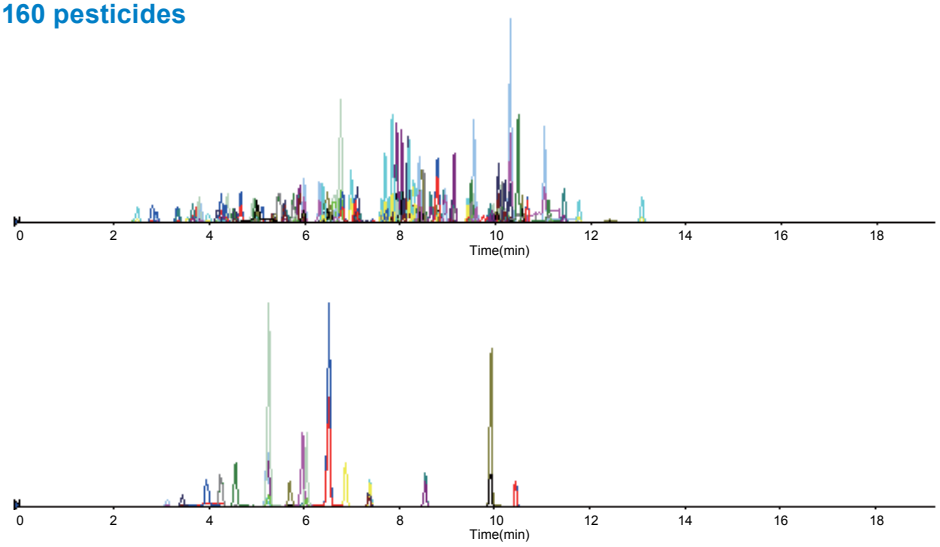
Column : Inertsil ODS-P (5 µm, 250 × 4.6 mm I.D.)
Eluent : A) CH_3OH
B) CH_3OH/H_2O = 70/30, v/v
A/B = 0/100 - 5 min - 0/100 - 20 min - 100/0, v/v
Flow Rate : 1.0 mL/min
Col. Temp. : 40 °C
Detection : UV 254 nm
Data Source : InertSearch for LC No. LA336

Sample :
1. Naphthalene
2. Acenaphthylene
3. Acenaphthene
4. Fluorene
5. Phenanthrene
6. Anthracene
7. Fluorene
8. Pyrene (10 ng/mL in CH_3OH each)
9. Benzo-[a]-anthracene
10. Chrysene
11. Benzo-[b]-fluoranthene
12. Benzo-[k]-fluoranthene
13. Benzo-[a]-pyrene
14. Dibenzo-[a]-pyrene
15. Benzo-[ghi]-pyrene
16. Indeno-[1,2,3-cd]-pyrene

Pesticides

160 pesticides

Provided by AB SCIEX

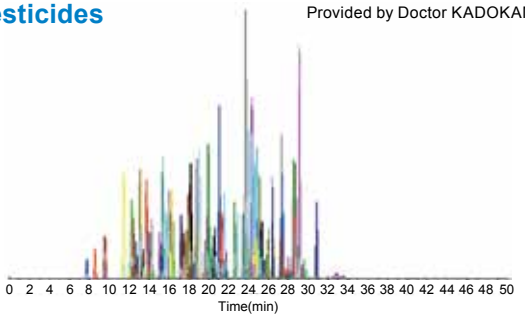


Conditions

Column	: InertSustain C18 (2 µm, 100 × 2.1 mm I.D.)
Eluent	: A) 2 mM CH_3COONH_4 B) CH_3OH A/B = 5/95 - 0.5 min - 30/70 - 9.5 min - 95/5 - 5 min - 95/5, v/v
Flow Rate	: 0.3 mL/min
Col.Temp.	: 40 °C
Detection	: LC/MS/MS (4000 QTRAP : ESI, MRM)
Injection Vol.	: 10 µL
Data Source	: LC Technical Note No. 129

118 Pesticides

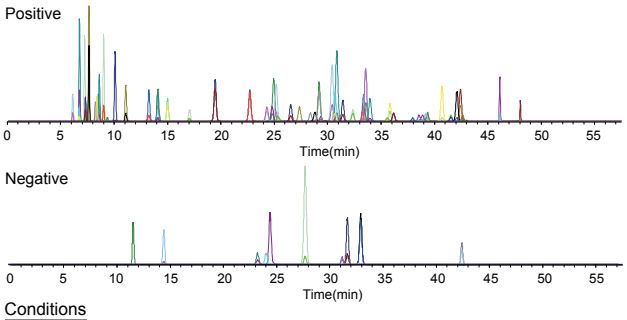
Provided by Doctor KADOKAMI



Conditions

Column	: Inertsil ODS-4 HP (3 µm, 150 × 2.1 mm I.D.)
Eluent	: A) 5 mM CH_3COONH_4 in CH_3OH B) 5 mM CH_3COONH_4 in H_2O A/B = 5/95 - 30 min - 95/5 - 20 min - 95/5 , v/v
Flow Rate	: 0.3 mL/min
Col. Temp.	: 40 °C
Detection	: LC/MS/MS (4000 QTRAP : ESI, Positive, MRM)
Injection Vol.	: 2.5 µL
Data Source	: LC InertSearch No. LA 843

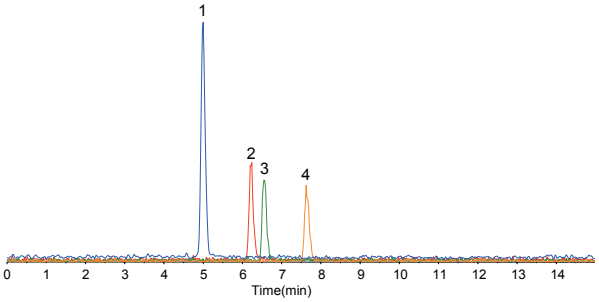
Tap Water Pesticides



Conditions

Column	: InertSustain C18 (3 µm, 75 × 2.1 mm I.D.)
Eluent	: A) 5 mM $CH_3COONH4$ in H_2O B) 5 mM $CH_3COONH4$ in CH_3OH A/B = 95/5 - 4 min - 60/40 - 35 min - 25/75 - 5 min - 0/100 - 6 min - 0/100, v/v
Flow Rate	: 0.15 mL/min
Col.Temp	: 40 °C
Sample.Temp.	: 5 °C
Detection	: LC/MS/MS (4000 QTRAP : ESI, MRM)
Injection Vol.	: 100 µL
Data Source	: LC Technical Note No.135

4 Pesticides

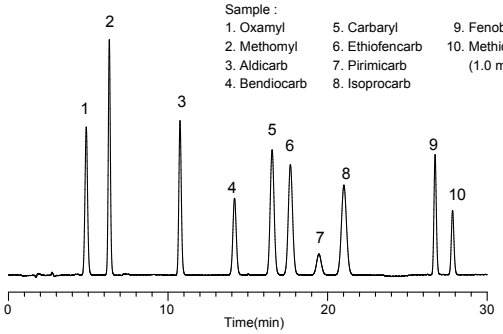


Conditions

Column	: InertSustain Phenyl (3 µm, 150 × 2.1 mm I.D)
Eluent	: A) 0.1 % HCOOH in CH_3CN B) 0.1 % HCOOH in H_2O A/B = 40/60 - 10 min - 70/30 - 0.01 min - 40/60 - 5 min - 40/60, v/v
Flow Rate	: 0.3 mL/min
Col. Temp.	: 40 °C
Detection	: LC/MS/MS (4000 QTRAP : ESI, Positive, MRM)
Injection Vol.	: 5 µL
Data Source	: LC InertSearch No. LB077

Sample :
1. Paclobutrazole
2. Diniconazole
3. Propiconazole
4. Difenconazole
(1 µg/L each)

Carbamate Insecticides



Sample :
1. Oxamyl
2. Methomyl
3. Aldicarb
4. Bendiocarb
5. Carbaryl
6. Ethiofencarb
7. Pirimicarb
8. Isoprocarb
9. Fenobucarb
10. Methiocarb
(1.0 mg/L each)

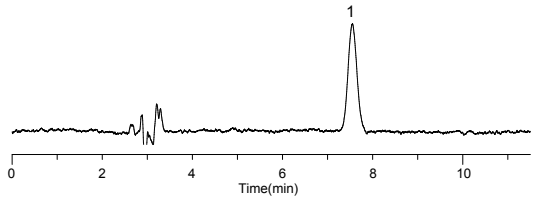
Conditions

Column	: InertSustain C18 (5 µm, 250 × 4.6 mm I.D.)
Eluent	: A) CH_3OH B) H_2O A/B = 35/65 - 2 min - 35/65 - 0.1 min - 53/47- 18.4 min - 53/47 - 0.1 min - 70/30 - 9.4 min - 70/30 - 0.1 min - 35/65 - 9.9 min - 35/65, v/v
Reaction Reagent	: OPA reagent
Flow Rate	: 1.0 mL/min
Col. Temp.	: 40 °C
Detection	: FL Ex 339 nm Em 455 nm(0 - 18.5 min), Ex 312 nm Em 382 nm(18.6 - 20.1 min), Ex 339 nm Em 455 nm(20.2 - 30 min)
Injection Vol.	: 10 µL
Data Source	: LC InertSearch No. LA916

Applications

Vitamins

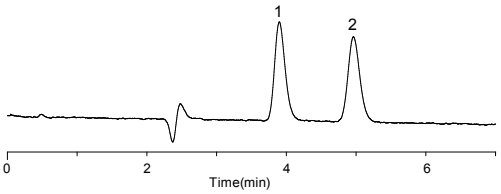
Vitamin A in Food



Conditions

Column	: Inertsil ODS-3 (5 µm, 250 × 4.6 mm I.D.)	Sample :
Eluent	: A) CH_3OH	1. Retinol (50 µg/L)
	B) H_2O	
	A/B = 95/5, v/v	
Flow Rate	: 1.0 mL/min	
Col. Temp.	: 40 °C	
Detection	: UV 325 nm	
Injection Vol.	: 20 µL	
Data Source	: LC Technical Note No. 32	

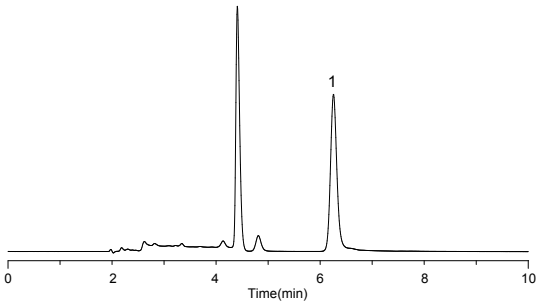
Vitamin B1



Conditions

Column	: Inertsil ODS-3	Sample :
	(5 µm, 150 × 4.6 mm I.D.)	1. Thiamine
Eluent	: A) CH_3OH	2. Hydroxyethyl thiamine (HET)
	B) 0.01 M NaH_2PO_4,	(10 µg/L each)
	0.15 M $NaClO_4$ in H_2O (pH2.2)	
	A/B = 1/9, v/v	
Reaction Reagent	: 0.05 w/v % K3[Fe(CN)6]	
	+15 w/v % NaOH, 0.4 mL/min	
Flow Rate	: 0.8 mL/min	
Col. Temp.	: 40 °C	
Detection	: FL Ex 375 nm Em 440 nm	
Injection Vol.	: 20 µL	
Data Source	: LC Technical Note No. 10	

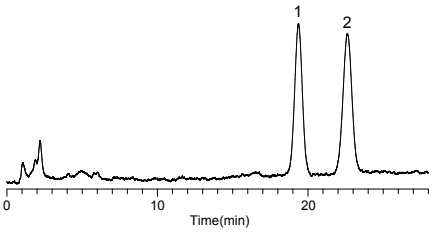
Vitamin C in Food



Conditions

Column	: Inertsil SIL-100A (5 µm, 250 × 4.6 mm I.D.)	Sample :
Eluent	: A) $CH_3COOC_2H_5$	1. Ascrobic acid
	B) n-Hexane	
	C) CH_3COOH	
	A/B/C = 50/40/10, v/v/v	
Flow Rate	: 1.5 mL/min	
Col. Temp.	: 40 °C	
Detection	: VIS 495 nm	
Injection Vol.	: 20 µL	
Data Source	: LC Technical Note No. 9	

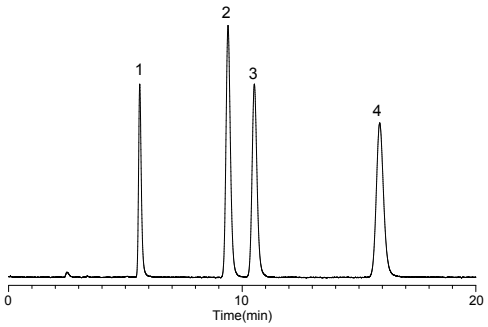
Vitamin D2, D3



Conditions

Column	: Inertsil ODS-P (5 µm, 250 × 4.6 mm I.D.)	Sample :
Eluent	: CH_3CN	1. Vitamin D2 (Ergocalciferol)
Flow Rate	: 1.5 mL/min	2. Vitamin D3 (Cholecarciferol)
Col. Temp.	: 40 °C	(0.1 mg/L each)
Detection	: UV 265 nm	
Injection Vol.	: 200 µL	
Data Source	: LC Technical Note No. 33	

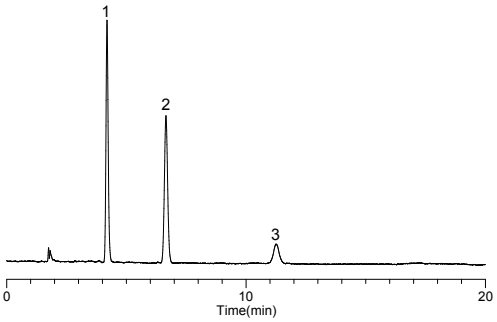
Vitamin E



Conditions

Column	: Inertsil NH2 (5 µm, 250 × 4.6 mm I.D.)	Sample :
Eluent	: A) 2-Propanol	1. α-Tocopherol
	B) n-Hexane	2. β-Tocopherol
	A/B = 2/98, v/v	3. γ-Tocopherol
Flow Rate	: 1.2 mL/min	4. δ-Tocopherol
Col. Temp.	: 40 °C	(1.0 mg/L each)
Detection	: FL Ex 298 nm Em 330 nm	
Injection Vol.	: 20 µL	
Data Source	: LC InertSearch No. LB199	

Vitamin K

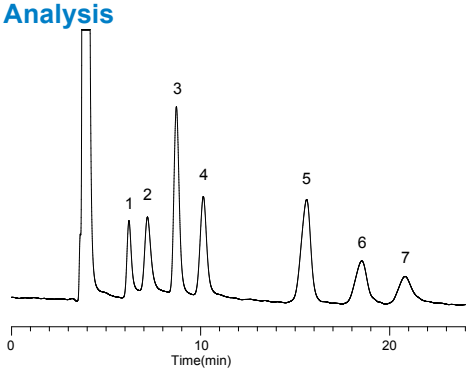


Conditions

Column	: InertSustain C8 (5 µm, 150 × 3.0 mm I.D.)	Sample :
Eluent	: CH_3CN	1. Vitamin K2 (MK-4)
Flow Rate	: 1.0 mL/min	2. Vitamin K1
Col. Temp.	: 40 °C	3. Vitamin K2 (MK-7)
Detection	: UV 270 nm	(5 mg/L each)
Injection Vol.	: 5 µL	
Data Source	: LC InertSearch No. LB030	

Others

Sugar Analysis

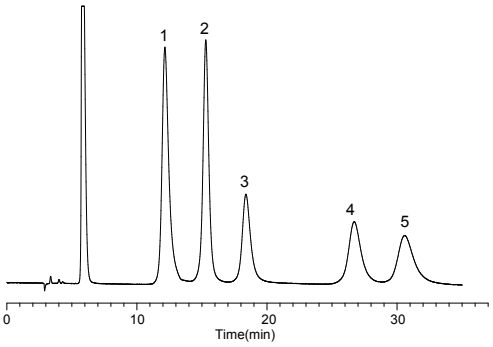


Conditions

Column : InertSustain NH2 (5 µm, 250 × 4.6 mm I.D.)
Eluent : A) CH_3CN
B) H_2O
A/B = 85/15, v/v
Flow Rate : 1.0 mL/min
Col. Temp. : 40 °C
Detection : RI
Injection Vol. : 10 µL
Data Source : LC InertSearch No. LB180

Sample :
1. Rhamnose
2. Fucose
3. Fructose
4. Glucose
5. Sucrose
6. Maltose
7. Lactose
(10 mg/mL each)

Sugar Analysis Using HPLC-ECD

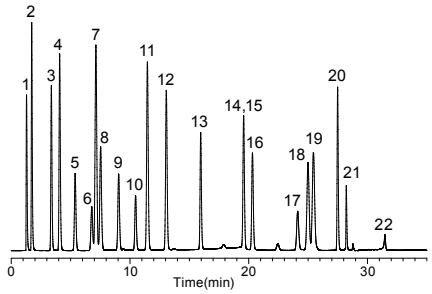


Conditions

Column : InertSphere Sugar-1 (5 µm, 150 × 4.6 mm I.D.)
Eluent : 100 mM NaOH
Flow Rate : 0.5 mL/min
Col. Temp. : 25 °C
Detection : ECD Pulse Mode
Injection Vol. : 10 µL
Data Source : LC Technical Note No. 101

Sample :
1. Fucose
2. Glucose
3. Fructose
4. Lactose
5. Sucrose
(10 mg/L each)

Analysis of Pre-column Derivatized Amino Acids

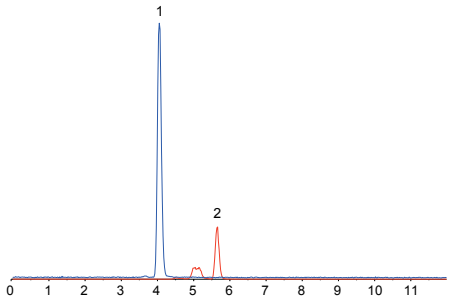


Conditions

Column : Inertsil ODS-4(3 µm, 150 × 3.0 mm I.D.)
Eluent : A) $CH_3CN/CH_3OH/H_2O$ = 45/40/15, v/v/v
B) 20 mM KH_2PO4 (pH 6.9, H_3PO_4)
A/B = 11/89 - 3 min - 11/89 - 9 min
- 22/78 - 2 min - 28/72 - 9 min - 30/70
- 4 min - 65/35 - 7 min - 75/25 - 1 min
- 100/0, v/v
Flow Rate : 0.7 mL/min
Col. Temp. : 35 °C
Detection : FL Ex 350 nm Em 450 nm (0-29 min)
Ex 266 nm Em 305 nm (29-35 min)
Injection Vol. : 1 µL
Sample : Derivatized Amino Acids
Data Source : LC InertSearch No. LB088

Sample :
1. OPA-Aspartic Acid
2. OPA-Glutamic Acid
3. OPA-Asparagine
4. OPA-Serine
5. OPA-Glutamine
6. OPA-Histidine
7. OPA-Glycine
8. OPA-Threonine
9. OPA-Citru l line
10. OPA-Arginine
11. OPA-Alanine
12. OPA-GABA
(4-aminobutanoic acid)
13. OPA-Tyrosine
14. OPA-Cys-Cys
15. OPA-Valine
16. OPA-Methionine
17. OPA-Tryptophan
18. OPA-Phenylalanine
19. OPA-Isoleucine
20. OPA-Leucine
21. OPA-Lysine
22. Fmoc-Proline
(10 µg/mL each)

PFOS and PFOA

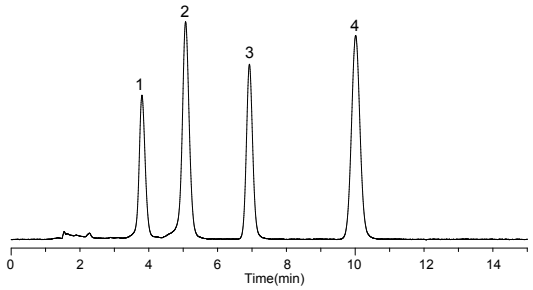


Conditions

Column : Inertsil ODS-4
(3 µm, 100 × 2.1 mm I.D.)
Eluent : A) 5 mM CH_3COONH_4 in H_2O
B) 5 mM CH_3COONH_4 in CH_3OH
A/B = 40/60 - 8 min - 25/75 - 0.1 min
-10/90 - 1.9 min - 10/90 - 0.1 min
- 40/60 - 4.9 min - 10/90, v/v
Flow Rate : 0.6 mL/min
Col. Temp. : 40 °C
Detection : LC/MS/MS (4000 QTRAP : ESI, Negative, MRM)
Injection Vol. : 2 µL
Data Source : LC InertSearch No. LA864

Sample :
1. PFOA (Perfluorooctanoic acid)
2. PFOS (Perfluorooctanesulfonic acid)
(1 mg/L each)

Analysis of Pre-column Derivatized Aflatoxin

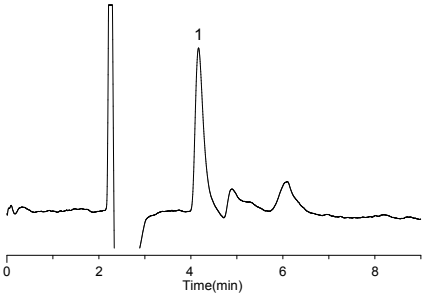


Conditions

Column : InertSustain C18 (5 µm, 150 × 4.6 mm I.D.)
Eluent : A) CH_3OH B) CH_3CN C) H_2O
A/B/C = 30/10/60, v/v/v (Premix)
Flow Rate : 1.0 mL/min
Col. Temp. : 40 °C
Detection : FL Ex 365 nm Em 450 nm
Injection Vol. : 20 µL
Data Source : LC InertSearch No. LB107

Sample :
1. Aflatoxin G1
2. Aflatoxin B1
3. Aflatoxin G2
4. Aflatoxin B2
(5 ng/mL each)

Hydrogen Peroxide (H_2O_2)



Conditions

Column : Inertsil CX (5 µm, 250 × 4.6 mm I.D.)
Flow Rate : 0.8 mL/min
Detection : ECD
Injection Vol. : 100 µL
Data Source : LC Technical Note No. 49

Sample :
1. Hydrogen peroxide(H_2O_2)
(10 µg/L)