Sales Information

Key Words:

HILIC YMC
Polar Analytes
Scale-Up

No. 110-5 e

YMC EUROPE GMBH

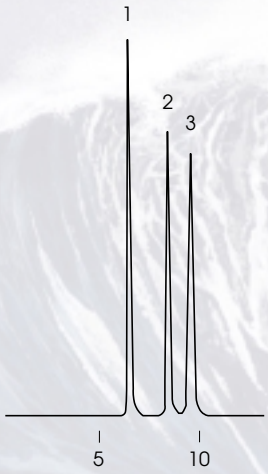
HILIC with YMC

To allow you to succeed in the analysis of extremely polar compounds, YMC has developed several selectivities, which enables reversed phase work with aqueous eluents: **YMC-Pack ODS-AQ** and **YMC Hydrosphere C18**, (the latter is based on **YMC**'s ultra pure ***Pro*Family** silica and therefore allows excellent peak shape to be obtained.) If the retention of the polar compounds is insufficient on these C18 phases, **H**ydrophi**l**ic **I**nteraction **C**hromatography **HILIC** can provide an alternative separation mechanism. **YMC** offers a variety of very rugged selectivities, which complement the above reversed-phase materials.

• Silica • PVA-Sil • Amino • Polyamine II • Cyano • Diol

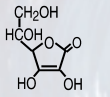
The mainly normal phase materials cover a broad range of polarity so that even extremely polar compounds can be retained to provide an optimal analysis. In addition, **HILIC** conditions of high organic phase concentration mobile phases are very compatible with LC/MS systems.
With the wide variety of particle sizes (from 3 µm to 50 µm) for **YMC** phases, scale-up to prep and process scale is simplified. In addition, the **YMC** bulk materials can be produced in multi-ton quantities to allow full scale production processes to be established.

Applications:



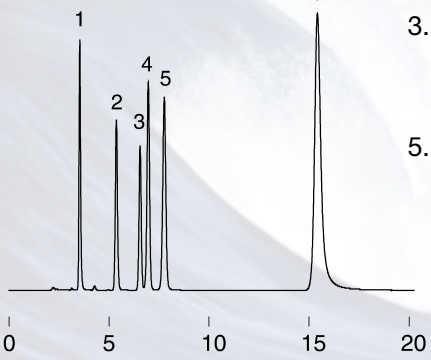
1. 
Nicotinic acid

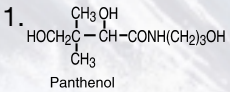
2. Erythorbic acid

3. 
L-Ascorbic acid
(Vitamin C)

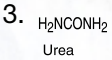
1. Nicotinic acid
2. Erythorbic acid
3. L-Ascorbic acid

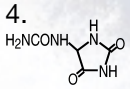
Column:	YMC-Pack NH_2 (5 µm, 12 nm) 250 x 4.6 mm ID
Eluent:	Acetonitrile / 50 mM $NH_4H_2PO_4$ (70:30)
Flow rate:	1.0 ml/min
Temperature:	40 °C
Detection:	UV at 250 nm, 0.16 AUFS
Injection:	10 µl (0.05-0.1 mg/ml)

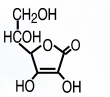


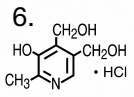
1. 
Panthenol
(Pantothenyl alcohol)

2. 
Nicotinic acid

3. 
Urea

4. 
Allantoin

5. 
L-Ascorbic acid
(Vitamin C)

6. 
Pyridoxine HCl
(Vitamin B_6)

1. Panthenol
2. Nicotinic acid
3. Urea
4. Allantoin
5. L-Ascorbic acid
6. Pyridoxine HCl (Vitamin B_6)

Column:	YMC-Pack Polyamine II (5 µm, 12 nm) 250 x 4.6 mm ID
Eluent:	50 mM $NH_4H_2PO_4$-H_3PO_4 (pH = 2.8) / Acetonitrile (20:80)
Flow rate:	1.0 ml/min
Temperature:	37 °C
Detection:	UV at 210 nm, 0.16 AUFS
Injection:	10 µl (0.01-5.0 mg/ml)

YMC Europe GmbH • Alte Raesfelder Str. 6 • D-46514 Schermbeck • Phone: +49 (0) 2856 / 9192-0 • Fax: +49 (0) 2856 / 9192-22 • E-mail: info@ymc.de

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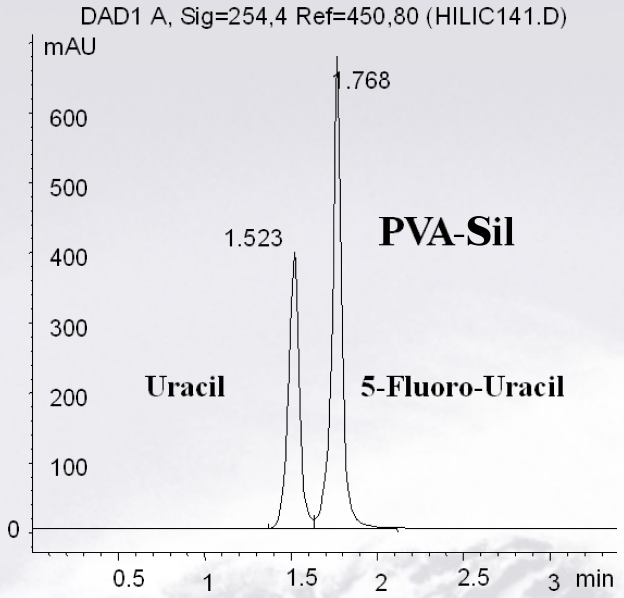
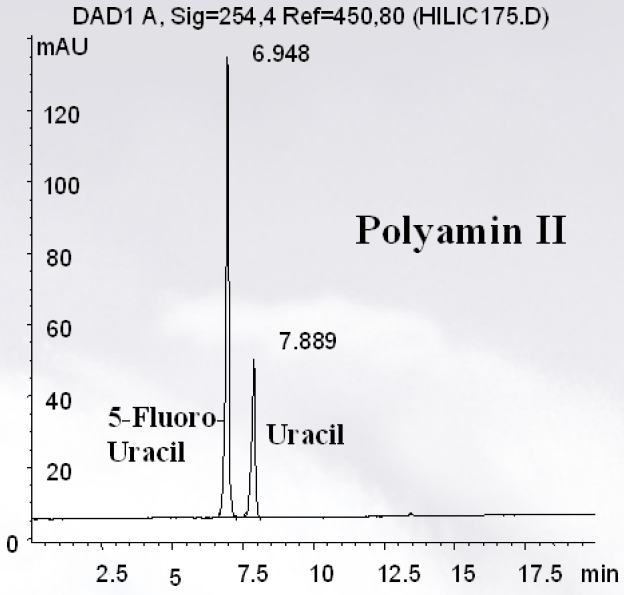


Column: PVA-Sil 100 x 3.0 mm ID
Eluent: Isokratic 95% A / 5% B
A: Acetonitrile / B: Ammonium acetate
200 mM, pH 5,5
Flow rate: 0.9 ml/min



Column: Polyamine II 125 x 4.0 mm ID
Eluent: Gradient 100% A -> 20 min -> 80% A
A: Acetonitrile / B: Ammonium acetate
200 mM, pH 5,5
Flow rate: 0.9 ml/min

Ordering Information

Phase	Pore Size	Particle Size	Order-No.
PVA-Sil	12 nm	5 µm	PV12S05...
Polyamine II	12 nm	5 µm	PB12S05...
Amino	12 nm	3 µm	NH12S03...
Amino	12 nm	5 µm	NH12S05...
Cyano	12 nm	3 µm	CN12S03...
Cyano	12 nm	5 µm	CN12S05...
Cyano	30 nm	5 µm	CN30S05...
Diol	6 nm	5 µm	DL06S05...
Diol	12 nm	5 µm	DL12S05...
Diol	20 nm	5 µm	DL20S05...
Diol	30 nm	5 µm	DL30S05...

Phase	Pore Size	Particle Size	Order-No.
Silica	6 nm	3 µm	SL06S03...
Silica	6 nm	5 µm	SL06S05...
Silica	12 nm	3 µm	SL12S03...
Silica	12 nm	5 µm	SL12S05...
Silica	20 nm	3 µm	SL20S03...
Silica	20 nm	5 µm	SL20S05...
Silica	30 nm	5 µm	SL30S05...

Simply add the column dimensions to the order numbers, with the length in cm and the column i.d. in two digit mm e. g.: 4.0 mm = 04

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