

#T04

EPROGEN[®] INC

ODS-III MICRA[®] NPS[®] End-capped Column

MICRA[®] NPS[®] is a breakthrough in fast HPLC. *NPS* is ultra-pure, highly uniform non porous silica spheres which provide the LC chromatographer greatly improved mass transfer and lower detection limits. Coupled with enhanced stability and dramatically reduced solvent usage, *NPS* is the ideal column to meet the ever increasing demands placed on today's analytical labs - Improved pro-

Eprogen, Inc. introduces ODS-III HPLC columns specifically designed for fast analysis and excellent resolution of basic compounds. Packed with specially end-capped 1.5 μ *NPS* non-porous silica, these columns are available in the standard 33 x 4.6 mm I.D. to complement our existing line of fast HPLC *NPS* ODS-I columns.

It is generally accepted that basic compounds must be analyzed using HPLC columns that have been end-capped. This technical note addresses the two most critical factors in basic compound analysis, peak shape and column stability. With its high stability, speed of analysis and solvent

• < 2 Minute Run Time

• Excellent Resolution

Figure 1: Antihistamine Analysis

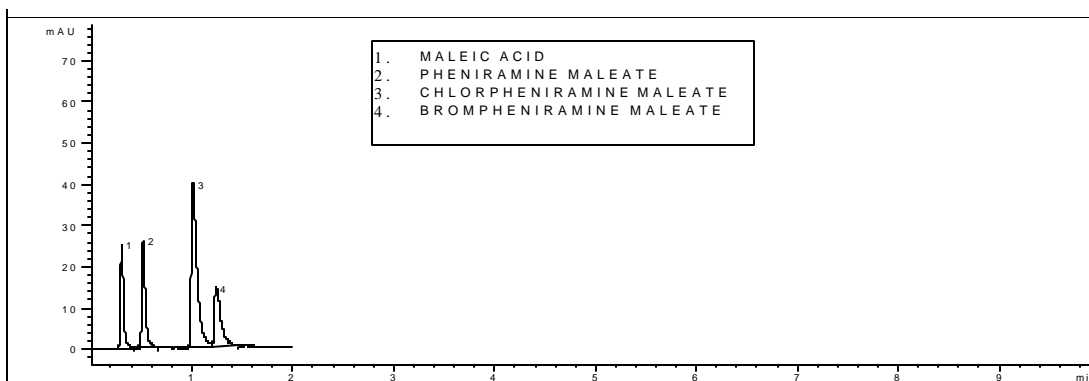


Figure 2: Antiarrhythmic Analysis

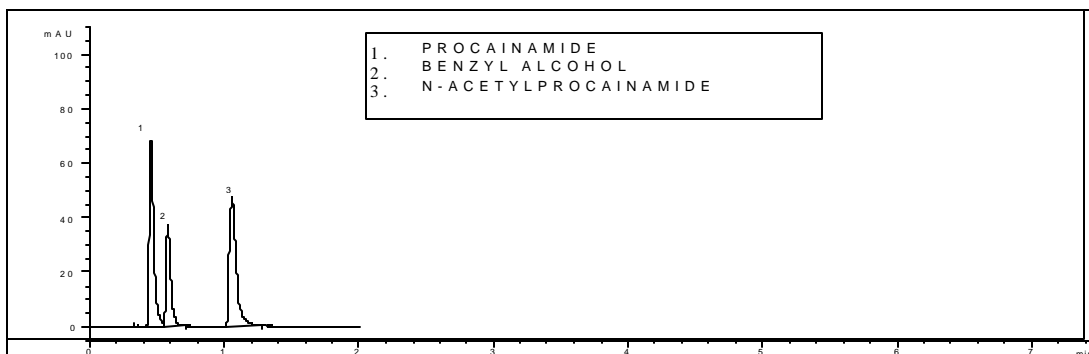


Figure 1 Analytical Conditions

Mobile Phase: 80%: 50 mM K₂HPO₄, 5 mM Octane Sulfonic Acid, Sodium Salt, pH=7.0
20%: CH₃CN
Flow Rate: 1 mL/min
Column: 0446ODS3E1.5
Detection: UV @ $\lambda=254$ nm
Injection Volume: 2 μ L
Operating Pressure: 237 bar

Figure 2 Analytical Conditions

Mobile Phase: 97%: 20mM KH₂PO₄, pH=7.0
3%: CH₃CN
Flow Rate: 1 mL/min
Column: 0446ODS3E1.5
Detection: UV @ $\lambda=254$ nm
Injection Volume: 1 μ L

STABILITY

Think small

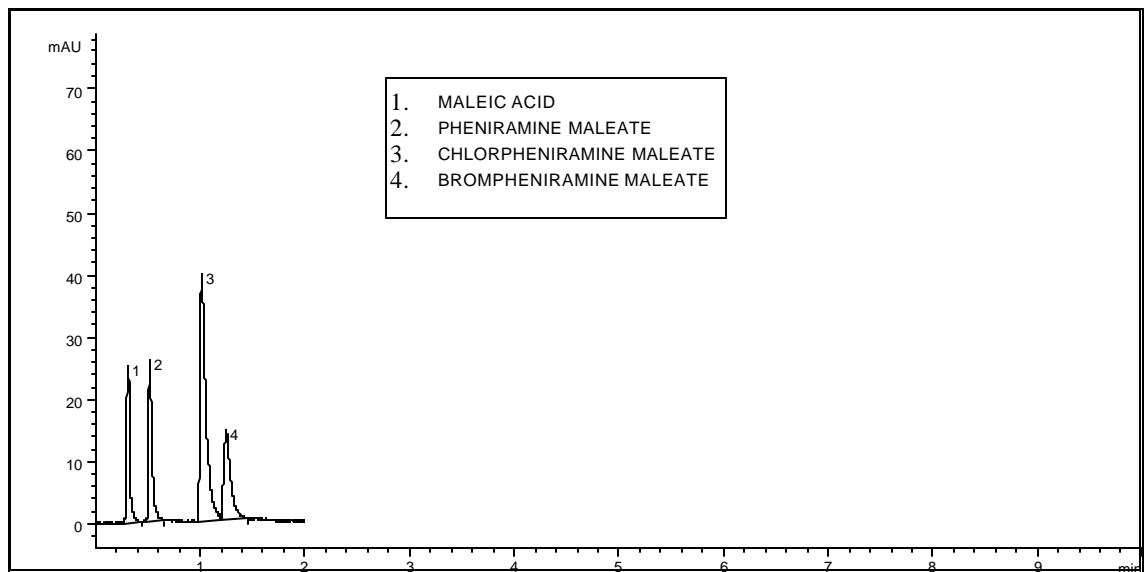
Stability was evaluated by flushing > 7000 column volumes of 0.1% TFA solution (pH 2) and > 9000 column volumes of 50 mM K_2HPO_4 (pH 9) w/ H_3PO_4 solution through ODS-IIIIE. The following results show no degradation of ODS-IIIIE under extreme pH conditions.

Think fast

Think **NPS**[®]

ANTI-HISTAMINES: ODS-IIIIE

Figure 3: AFTER >7000 COLUMN VOLUMES OF 0.1% TFA SOLUTION (pH 2)



MICRA[®] NPS[®] Columns Offer:

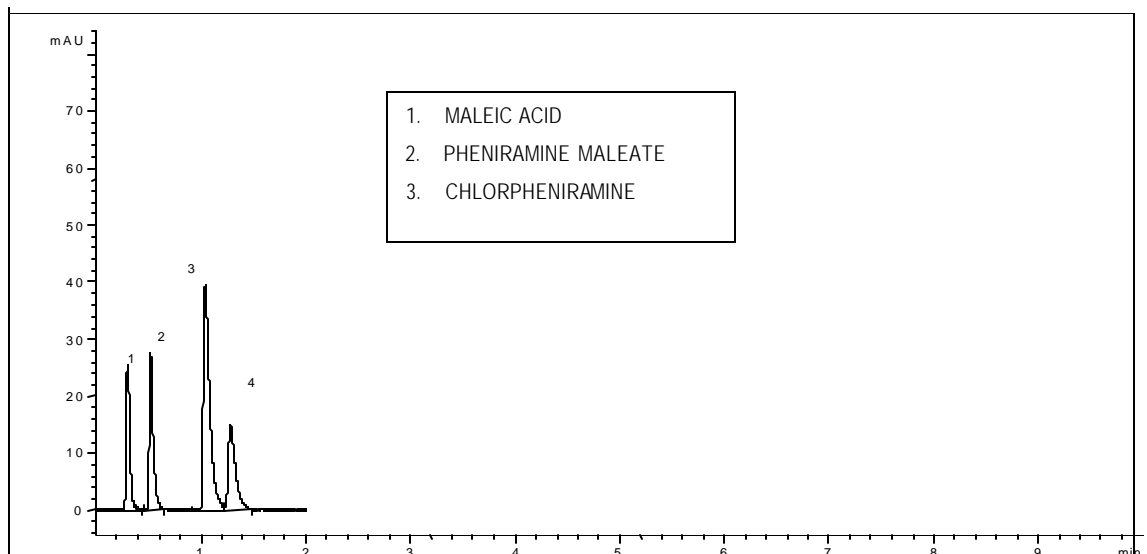
- Fast Analysis
- Excellent Resolution
- High Stability

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Figure 4: AFTER >9000 COLUMN VOLUMES OF 50 mM K_2HPO_4 (pH 9) w/ H_3PO_4 SOLUTION



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