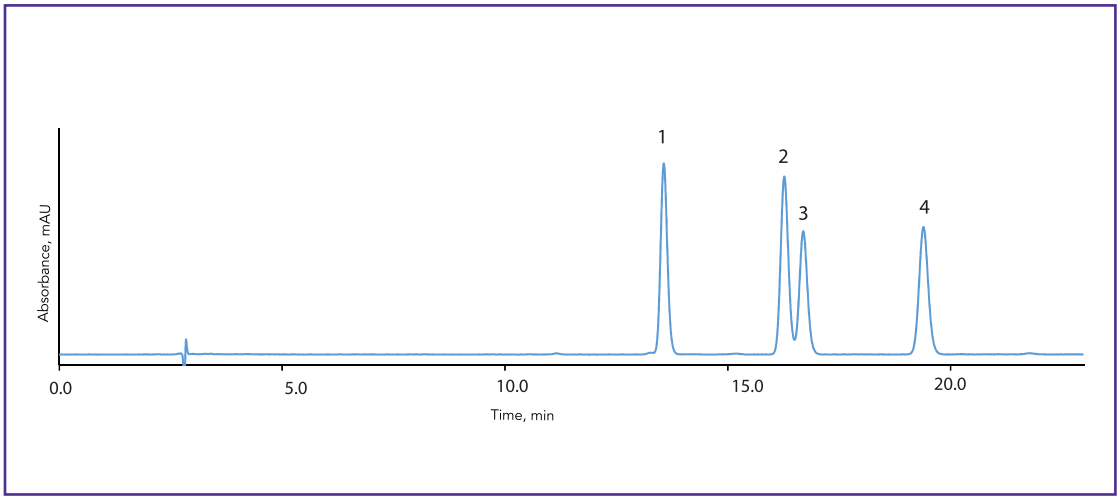
HALO®

VITAMINS

Separation of Tocopherols on HALO® C30 based on GB (Chinese Standards)

Application Note 189-V



PEAK IDENTITIES:

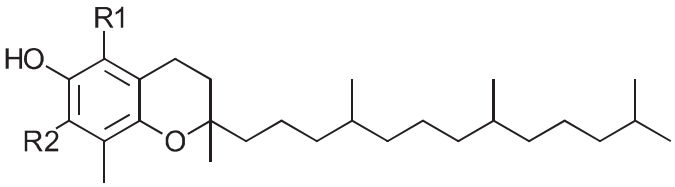
1. δ-tocopherol
2. γ- tocopherol
3. β- tocopherol
4. α- tocopherol

Tocopherols are forms of vitamin E (fat-soluble) that have antioxidant properties in both the human body and in food. They are also used for cosmetics and many personal care products. Here, tocopherols are separated on a 250 mm 160 Å pore size HALO® C30 column using a GB (Chinese standard) method. Due to the shape selectivity of the C30 phase, separation of the four isomers is achieved.

TEST CONDITIONS:

Column: HALO 160 Å C30, 2.7 µm, 4.6 x 250 mm
Part Number: 92114-930
Mobile Phase:
A: Water
B: Methanol
Isocratic: 95% B
Flow Rate: 0.9 mL/min
Initital Pressure: 240 bar
Temperature: 30 °C
Detection: UV 294 nm, PDA
Injection Volume: 20 µL
Sample Solvent: Methanol
Response Time: 2.0 sec
Data Rate: 20 Hz
Flow Cell: 13 µL
LC System: Agilent 1100
Data Courtesy of Beijing Institute for Drug Control

STRUCTURE:



Tocopherol	R1	R2
Alpha (α)	CH_3	CH_3
Beta (β)	CH_3	H
Gamma (γ)	H	CH_3
Delta (δ)	H	H

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