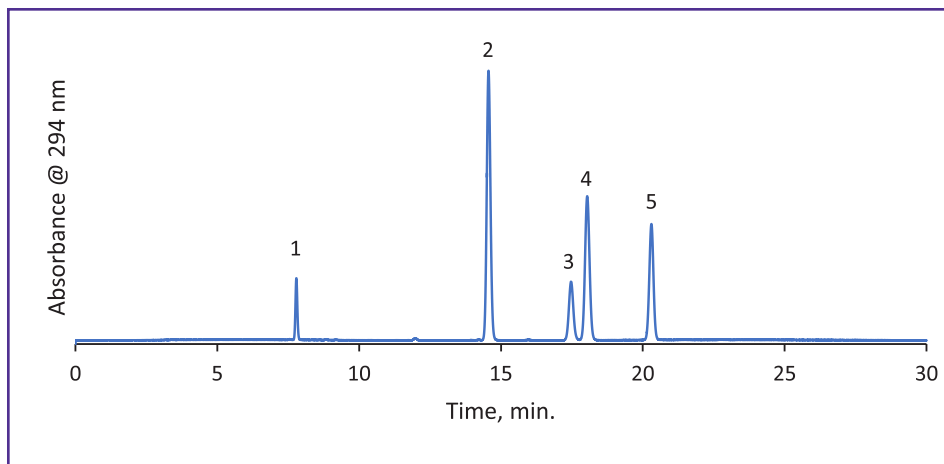




Analysis of Vitamin A and Vitamin E Isomers using GB Method

Application Note 210-V



PEAK IDENTITIES:

1. Retinyl Acetate
2. δ -tocopherol
3. γ -tocopherol
4. β -tocopherol
5. α -tocopherol

The 2.7 μm HALO® C30 is an ideal choice for the separation of vitamin A and the isomers of vitamin E using the official GB method. The shape selectivity of C30 allows for baseline resolution of gamma and beta tocopherol, which typically coelute on other bonded phases.

TEST CONDITIONS:

Column: HALO 160 Å C30, 2.7 μm
4.6 x 250 mm

Part Number: 92114-930

Mobile Phase A: Water

Mobile Phase B: Methanol

Gradient: Time	%B
0.0	96
13.0	96
20.0	100
24.0	100
24.5	96
30.0	96

Flow Rate: 0.8 mL/min

Initial Pressure: 237 bar

Temperature: 20 °C

Detection: 294 nm, PDA

Injection Volume: 10 μL

Sample Solvent: Methanol/ Ethanol

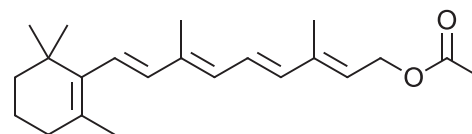
Data Rate: 14 Hz

Response Time: 0.12 sec.

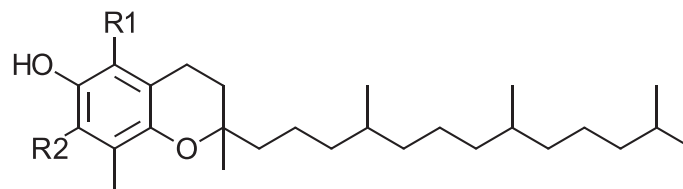
Flow Cell: 5 μL semi-micro

LC System: Agilent 1100

STRUCTURES:



Retinyl acetate



Tocopherol	R1	R2
Alpha (α)	CH ₃	CH ₃
Beta (β)	CH ₃	H
Gamma (γ)	H	CH ₃
Delta (δ)	H	H

