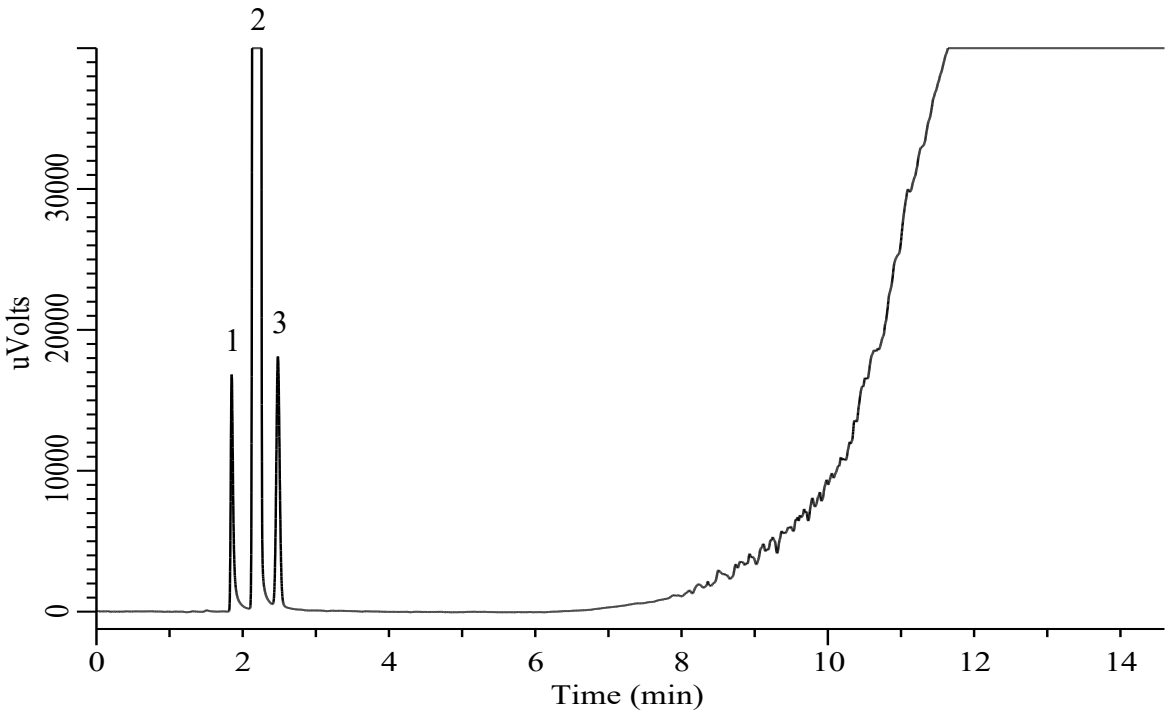
Analysis of Alcohol absolute

(Under the Condition of the draft for USP-NF, Benzalkonium Chloride Solution, Alcohol Content)



Conditions

System	: GC-4000 Plus system
Column	: InertCap 624 (GL Sciences Inc.) 0.32 mm I.D. x 15 m df = 1.8 µm
Col. Cat. No.	: 1010-14982
Col. Temp.	: 50 ℃ (4 min) - 10 ℃/min - 70 ℃ - 50 ℃/min - 300 ℃ (4 min)
Carrier Gas	: He, 1.4 mL/min (6 min) - 5 mL/min^2 - 3 mL/min (8.6 min)
Injection	: Split 105mL/min 250 ℃
Detection	: FID Auto Range 320 ℃
Injection vol.	: 0.5 µL

Analyte

1. Alcohol, absolute 1.2 mg/mL
2. 2-Propanol
3. *t*-butyl alcohol (I.S.) 1.0 mg/mL

Analyte in 2-propanol/H_2O=8/2 (v/v)

Relative retention times

Alcohol, absolute	: 0.745 (RT=1.847)
Isopropyl alcohol	: 0.891 (RT=2.210)
t-butyl alcohol	: 1.0 (RT=2.478)

Resolution (2,3) : 2.93 (≧ 2.0)

RSD of the peak ratio of 1 to 3 (%)(n=6) : 0.86 %