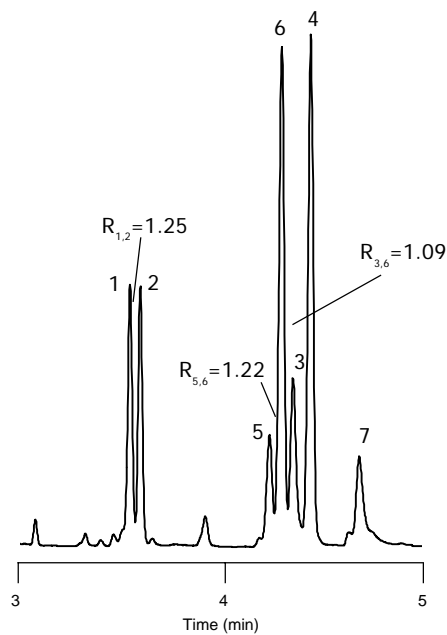


Orange Oil

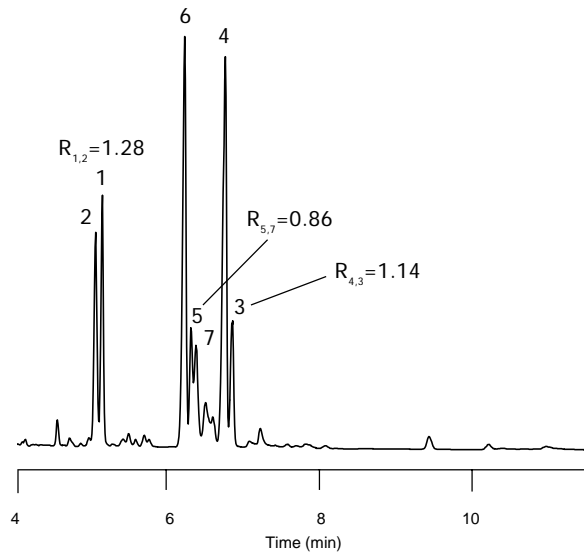
Compound list for all chromatograms

1. Tetra-O-methyl scutellarein
2. Tangeretin
3. Sinensetin
4. Nobiletin
5. Hexamethoxyflavone
6. Heptamethoxyflavone
7. Unidentified sterol

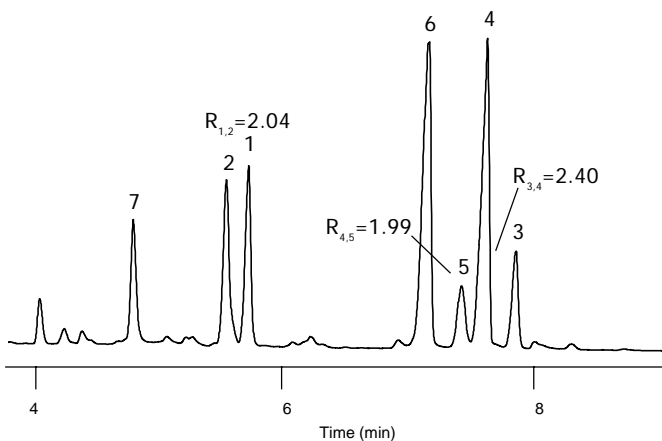
Column: DB-1
30 m x 0.25 mm I.D., 0.25 μ m
J&W P/N: 122-1032
Carrier: Hydrogen at 58 cm/sec,
 measured at 100°C
Oven: 310°C isothermal
Injector: Split 1:60, 300°C
Detector: FID, 340°C
 Nitrogen makeup gas at 30 mL/min



Column: DB-XLB
30 m x 0.25 mm I.D., 0.25 μ m
J&W P/N: 122-1232
Carrier: Hydrogen at 58 cm/sec,
 measured at 100°C
Oven: 310°C isothermal
Injector: Split 1:60, 300°C
Detector: FID, 340°C
 Nitrogen makeup gas at 30 mL/min



Column: DB-35ms
30 m x 0.25 mm I.D., 0.15 μ m
J&W P/N: 122-3831
Carrier: Hydrogen at 58 cm/sec,
 measured at 100°C
Oven: 310°C isothermal
Injector: Split 1:60, 300°C
Detector: FID, 340°C
 Nitrogen makeup gas at 30 mL/min



Resolution number (R) of 1.5 indicates baseline resolution. Undiluted orange oil analyzed isothermally at 310°C. While DB-1 adequately resolves the flavones, DB-XLB also resolves some of the minor orange oil constituents. The additional selectivity and retention of DB-35ms for these compounds is demonstrated. Here, all of the components are resolved from an unidentified sterol, peak 7. DB-XLB and DB-35ms give the analyst selectivity options at 310°C.