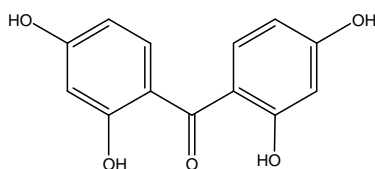


ベンゾフェノン類

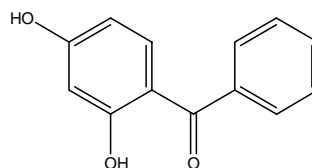
Benzophenones

ベンゾフェノン類は、紫外線吸収剤として広く用いられる化合物ですが、内分泌攪乱作用が疑われており、環境や食品中への汚染が懸念されています。CAPCELL CORE C₁₈ S2.7 (2.1 mm i.d. x 150 mm) を用いた分析例を示します。流速は通常の線流速 200 μ L/min の2倍としました (圧力：装置とカラムの分を含め 31.2 MPa)。

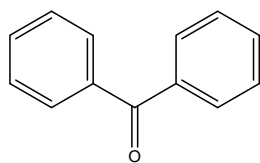
While benzophenones are widely used as ultraviolet light absorber, people are concerned about their activity as endocrine disruptor in food and environments. The following chromatogram was obtained with CAPCELL CORE C₁₈ S2.7 (2.1 mm i.d. x 150 mm), where a flow rate was 400 μ L/min, corresponding to twice that used in conventional applications (pressure across the instruments and the column: 31.2 MPa).



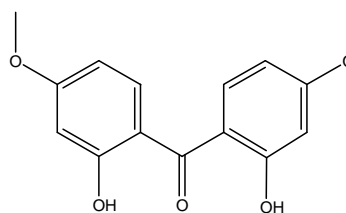
1. 2,2',4,4'-テトラヒドロキシベンゾフェノン (50 μ g/mL)
2,2',4,4'-Tetrahydroxybenzophenone (M.W. 246.2)



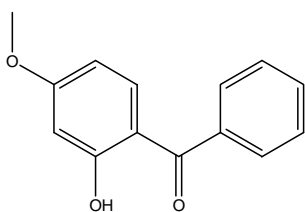
2. 2,4-ジヒドロキシベンゾフェノン (50 μ g/mL)
2,4-Dihydroxybenzophenone (M.W. 214.2)



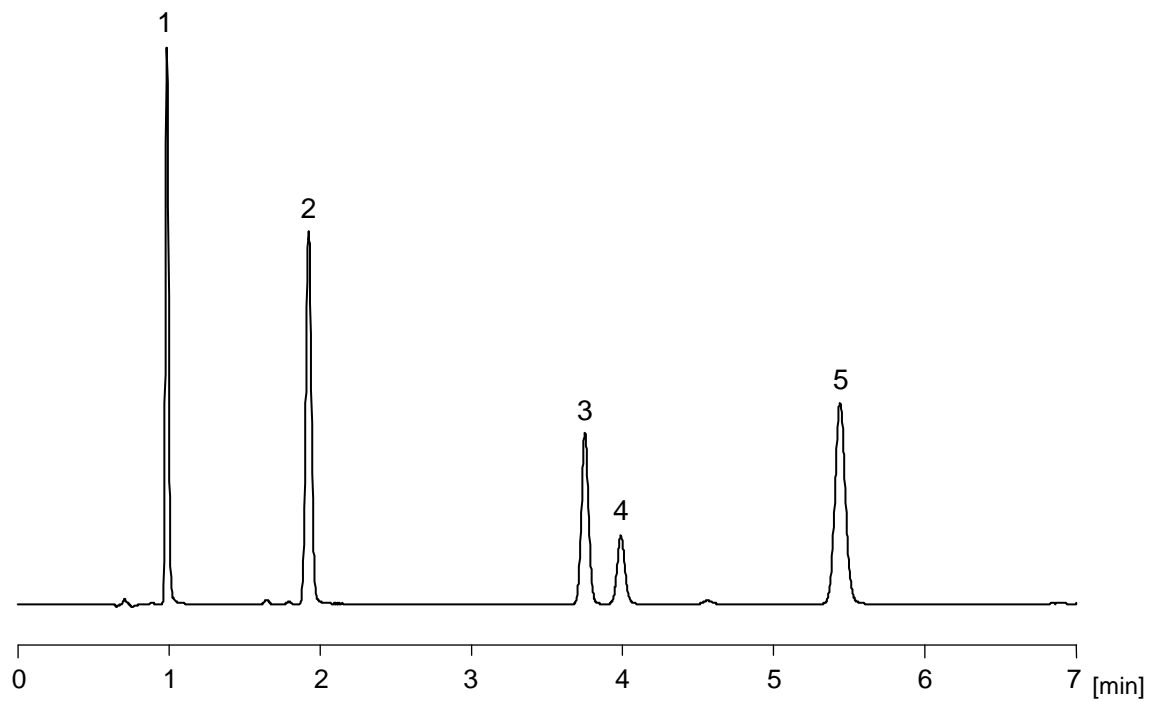
3. ベンゾフェノン (50 μ g/mL)
Benzophenone (M.W. 182.2)



4. 2,2'-ジヒドロキシ-4,4'-ジメトキシベンゾフェノン (50 μ g/mL)
2,2'-Dihydroxy-4,4'-dimethoxybenzophenone (M.W. 274.3)



5. 2-ヒドロキシ-4-メトキシベンゾフェノン (50 μ g/mL)
2-Hydroxy-4-methoxybenzophenone (M.W. 228.2)

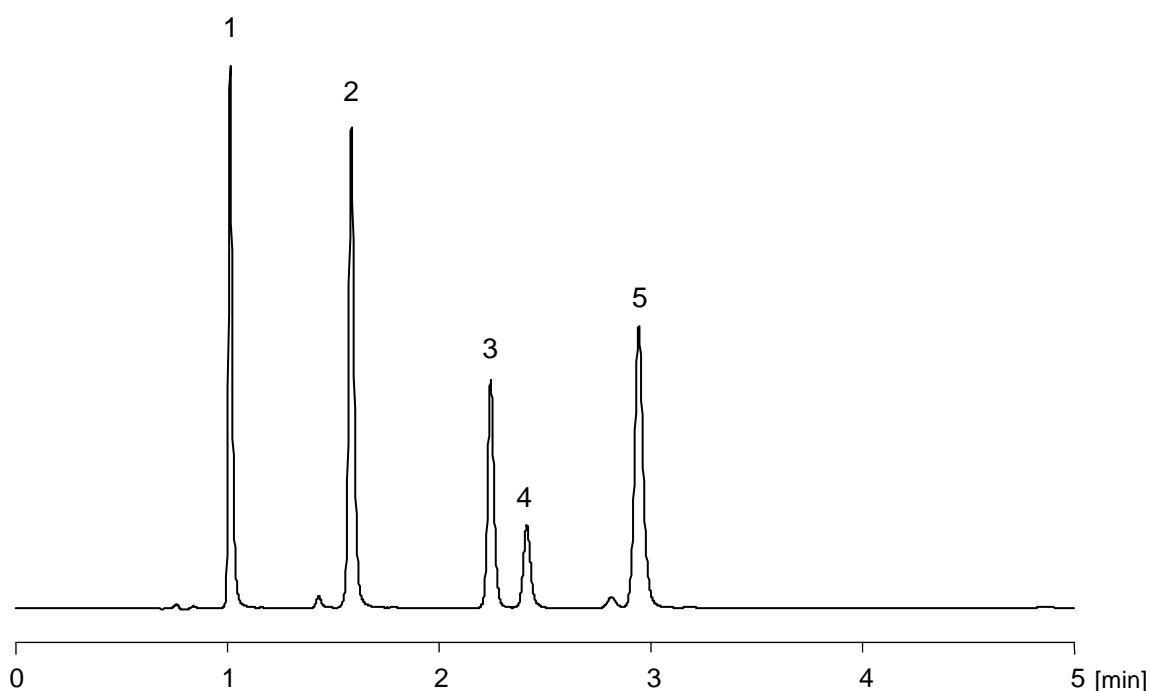


【HPLC Conditions】

Column : CAPCELL CORE C₁₈ S2.7 ; 2.1 mm i.d. x 150 mm
Mobile phase : H₂O / CH₃CN = 50 / 50
Flow rate : 400 μL/min
Temperature : 40 °C
Detection : UV 280 nm
Inj. vol. : 2 μL
Sample dissolved in : CH₃CN

更に、ペンタフルオロフェニル基を導入したコアシェル型充填剤である CAPCELL CORE PFP S2.7 (2.1 mm i.d. x 150 mm) を用いた分析例を示します。五種の物質のベースライン分離は確保しながら更に分析時間は短縮されています (圧力: 装置とカラムの分を含め 28.7 MPa)。

Furthermore, a chromatogram obtained with CAPCELL CORE PFP S2.7 (2.1 mm i.d. x 150 mm), or another core-shell type phase modified with pentafluoro groups. The time of analysis was further shortened with base-line separation among the five benzophenones undeteriorated (pressure across the instruments and the column: 28.7 MPa).



【HPLC Conditions】

Column : CAPCELL CORE PFP S2.7 ; 2.1 mm i.d. x 150 mm
Mobile phase : H₂O / CH₃CN = 50 / 50
Flow rate : 400 μL/min
Temperature : 40 °C
Detection : UV 280 nm
Inj. vol. : 2 μL
Sample dissolved in : CH₃CN