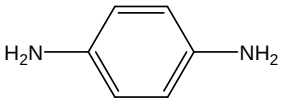
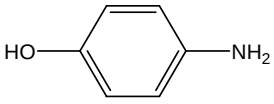
酸化染料　Oxidative hair dyes

ヘアカラーなどに広く用いられる酸化染料とその類縁物質 8 種の分析例を示します．カラムは CAPCELL PAK C_{18} MG S5（4.6 mm i.d. x 250 mm）を用いました．良好なピーク形状で充分な分離が得られました.

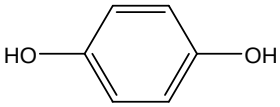
Eight compounds, oxidative dyes and related compounds, commonly used for hair colorings, were separated with CAPCELL PAK C_{18} MG S5 (4.6 mm i.d. x 250 mm). The compounds were efficiently separated with one another.



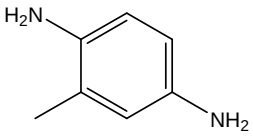
1. 1,4-ジアミノベンゼン (600 µg/mL)
   1,4-Diaminobenzene (M.W. 108.1)



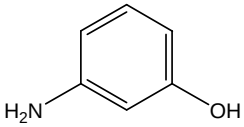
2. 4-アミノフェノール (600 µg/mL)
   4-Aminophenol (M.W. 109.1)



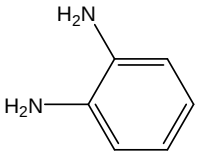
3. 1,4-ジヒドロキシベンゼン (600 µg/mL)
   1,4-Dihydroxybenzene (M.W. 110.1)



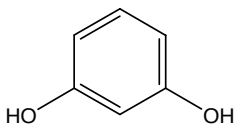
4. 2,5-ジアミノトルエン (600 µg/mL)
   2,5-Diaminotoluene (M.W. 122.2)



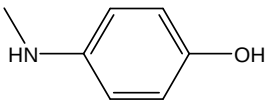
5. 3-アミノフェノール (600 µg/mL)
   3-Aminophenol (M.W. 109.1)



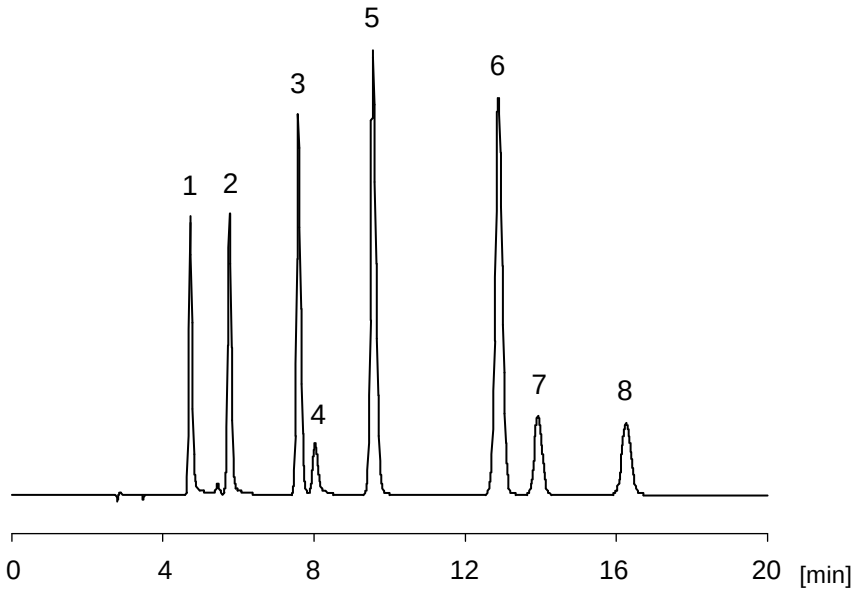
6. 1,2-ジアミノベンゼン (600 µg/mL)
   1,2-Diaminobenzene (M.W. 108.1)



7. 1,3-ジヒドロキシベンゼン (600 µg/mL)
   1,3-Dihydroxybenzene (M.W. 110.1)



8. 4-メチルアミノフェノール (600 µg/mL)
   4-Methylaminophenol (M.W. 123.1)



【HPLC Conditions】

Column	: CAPCELL PAK C_{18} MG S5 ; 4.6 mm i.d. x 250 mm
Mobile phase	: 1 vol% Triethanolamine (adjusted at pH 7.7 with phosphoric acid) / CH_3CN = 95 / 5
Flow rate	: 1.0 mL/min
Temperature	: 30 ˚C
Detection	: UV 280 nm
Inj. vol.	: 5 µL
Sample dissolved in	: 75 % CH_3OH with 100 µg/mL sodium sulfite

※ 1 µg/mL = 1 ppm