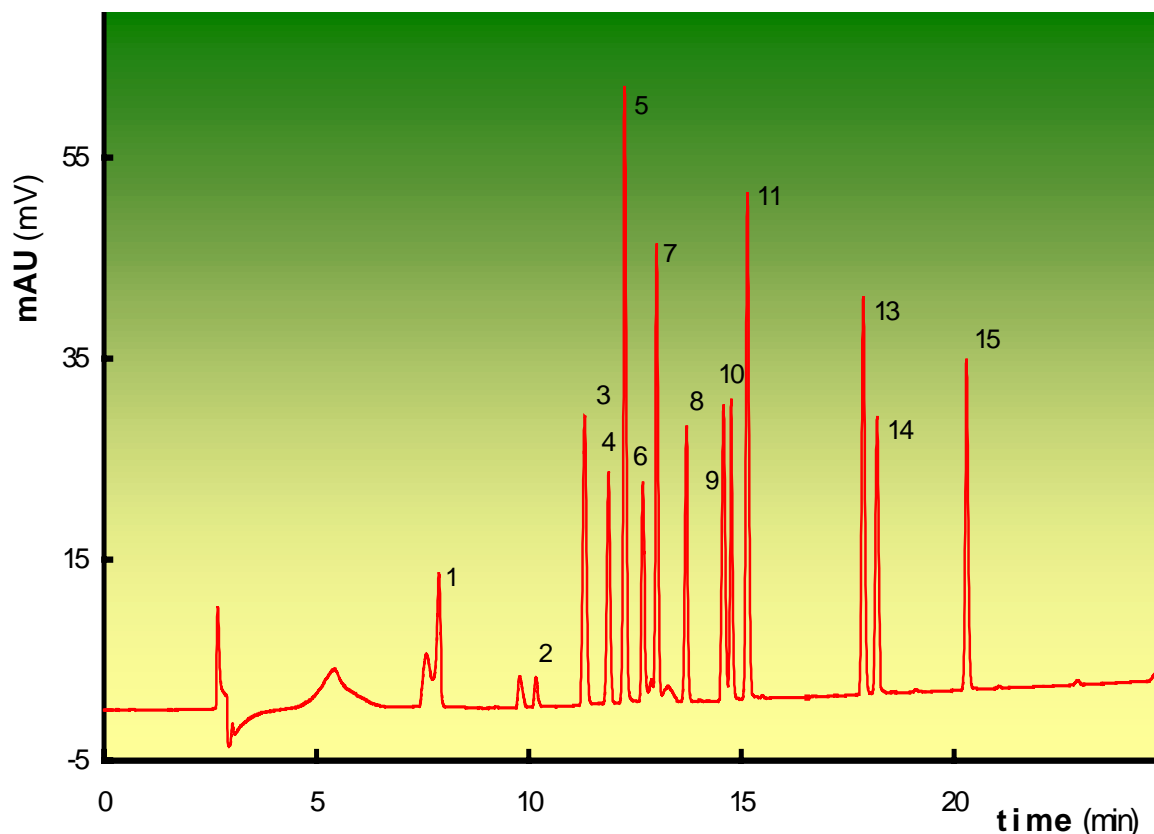


Analysis of Drugs and Metabolites by capillary HPLC



- | | | |
|----------------------------------|------------------------------|------------------------------|
| 1) Paracetamol (80 µg/mL) | 6) Nirvanol (400 µg/mL) | 11) Chlorzoxazon (160 µg/mL) |
| 2) Dextrorphan (160 µg/mL) | 7) 1-OH-Midazolam (41 µg/mL) | 12) 4-OH-Diclofenac |
| 3) 6-OH-Chlorzoxazon (100 µg/mL) | 8) Phenacetin (100 µg/mL) | 13) Dehydronifedipin |
| 4) 4-OH-Mephenytoin (80 µg/mL) | 9) Coumarin (120 µg/mL) | 14) 1Nifedipin (80 µg/mL) |
| 5) 7-OH-Coumarin (200 µg/mL) | 10) Mephenytoin (240 µg/mL) | 15) Diclofenac (100 µg/mL) |

Stationary phase: GROM Sil 120 ODS-4 HE, 3 µm **Column size:** 250 x 0.5 mm **Eluent:** A: H₂O + 0.1% HCOOH, B: MeCN + 0.1% HCOOH **Gradient:** 8-83% B, 0-50 min **Flow rate:** 10 µL/min **Pressure:** 28.2 MPa **Temperature:** ambient **Detection:** 225 nm **Flow cell:** 100 nL/ 0.3 mm **Injection:** 200 nL

Analyses performed with capillary LC and nano LC methods, using columns with inner diameters (ID) of 50 to 800 µm, can be every bit as safe and trustworthy as HPLC separations employing conventional HPLC, i.e. 4.0 or 4.6 mm ID columns.

The driving force and really most important argument for employing capillary LC and nano HPLC is not the often-cited reduction in solvent

consumption, with attendant reductions in costs and pollution, nor is it the small amounts of sample required, but rather is the dramatic, more than 8 000-fold increase in sensitivity and the simple, straight-forward procedure for on-line LC/MS coupling, which renders splitting of the eluate stream unnecessary (s. ref: M. Breyer, M. Twele, P. Földi, LaborPraxis 09, 18 – 22 (2001)). All these features make capillary HPLC superior.