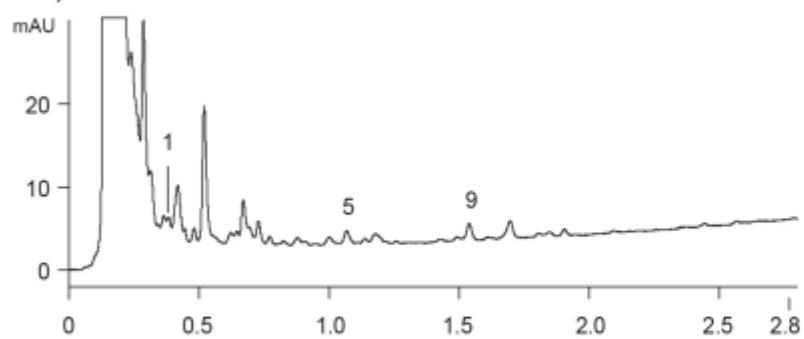
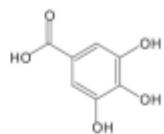


### A) UV at 254 nm

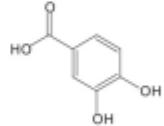


1



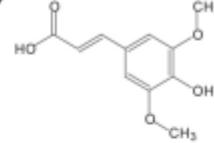
gallic acid

2



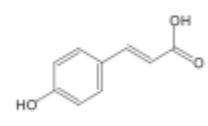
protocatechuic acid

7



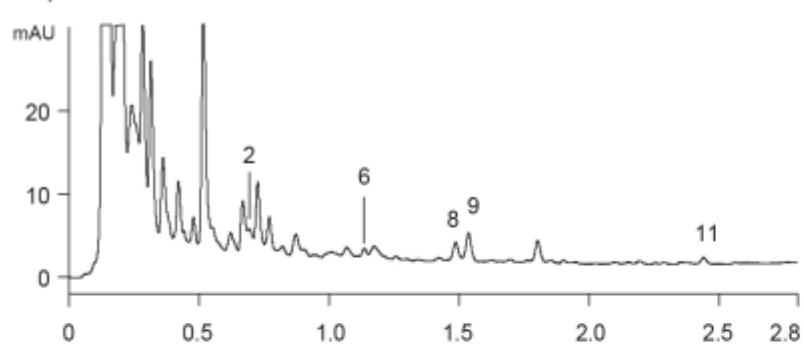
sinapic acid

8

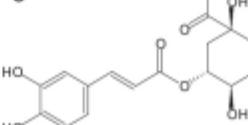


p-coumaric acid

### B) UV at 280 nm

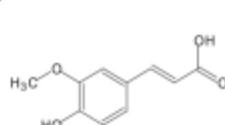


3



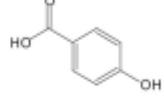
chlorogenic acid

9



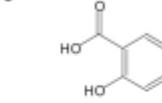
trans-ferulic acid

4



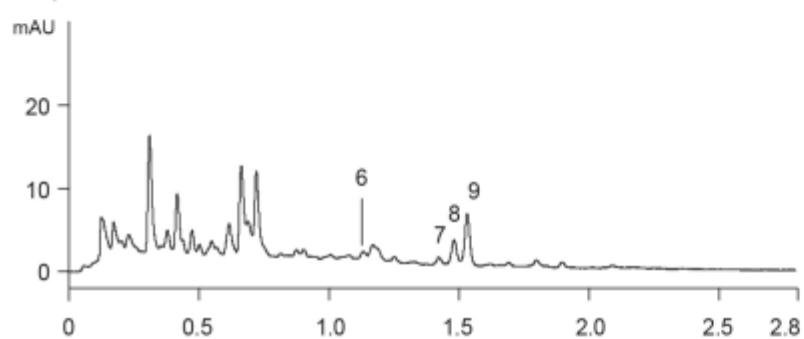
p-hydroxybenzoic acid

10

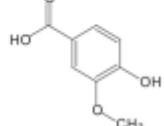


salicylic acid

### C) UV at 320 nm

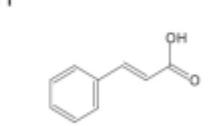


5



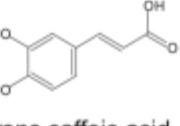
vanillic acid

11



trans-cinnamic acid

6



trans-caffeoic acid

**Column**: YMC-UltraHT Pro C18 (2  $\mu$ m, 12 nm)  
50 X 2.0 mmI.D.

**Eluent**: A) water / HCOOH (200/0.4)  
B) acetonitrile / methanol / THF / water / HCOOH (43.5/43.5/13/100/0.4)  
20-100% B (0-2.8 min)

**Flow rate**: 0.5 mL/min

**Temperature**: 40 °C

**Detection**: A) UV at 254 nm, B) UV at 280 nm, C) UV at 320 nm

**Injection**: 2  $\mu$ L

**Samples**: 2 times dilution of a beer with water