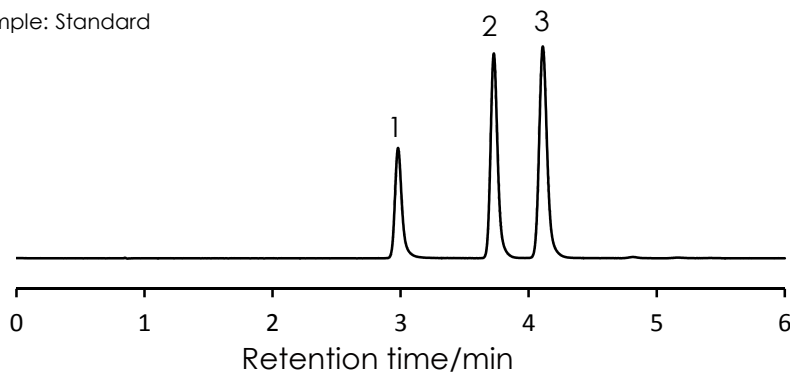


## コーヒー成分(ポリフェノール)の分離

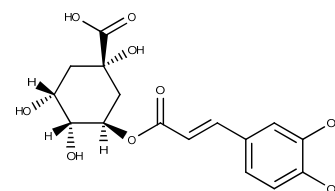
### Coffee polyphenol

SunShell C18 2.6  $\mu$ m, 100 x 4.6 mm i.d.

Sample: Standard



1. Chlorogenic Acid



Sample: Boiled water extracted

Coffee beans 10 g

Extracted by boiled water at 90 °C, 150 mL for 1 min

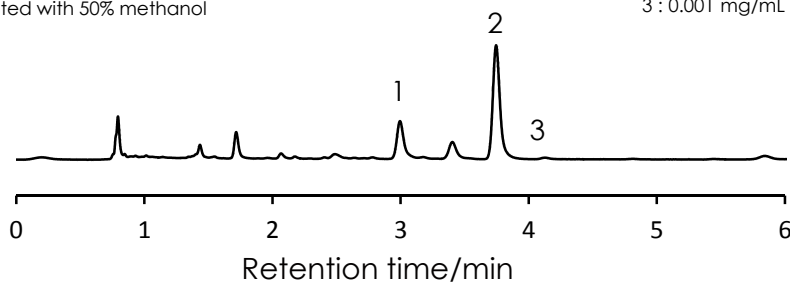
Diluted with 50% methanol

Component concentration

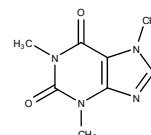
1 : 0.063 mg/mL

2 : 0.101 mg/mL

3 : 0.001 mg/mL



2. Caffeine



Sample: Water extracted

Coffee beans 10 g

Extracted by water at RT, 150 mL for 20 hour

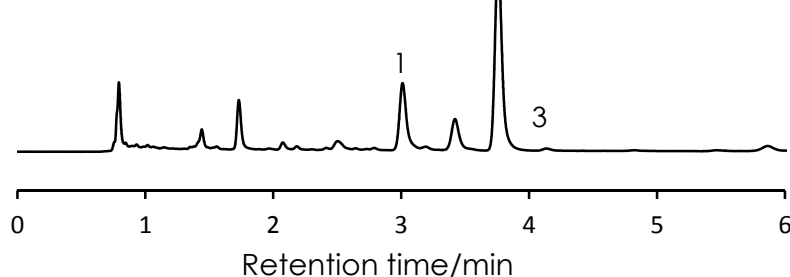
Diluted with 50% methanol

Component concentration

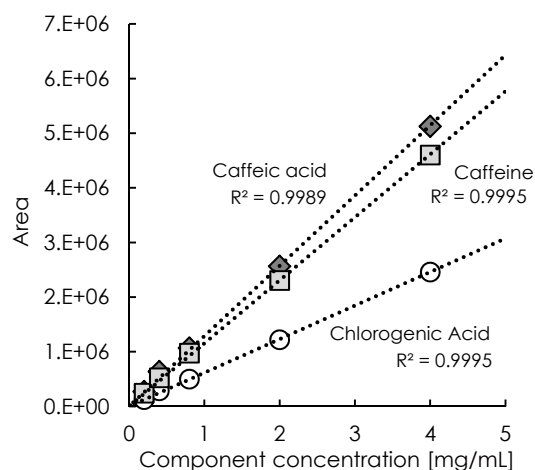
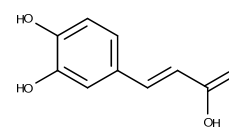
1 : 0.106 mg/mL

2 : 0.173 mg/mL

3 : 0.001 mg/mL



3. Caffeic acid



Column: SunShell C18, 2.6  $\mu$ m 100 x 4.6 mm i.d.

Mobile phase: Methanol:0.1% Formic acid = 20:80

Flow rate: 1.0 mL/min

Temperature: 40 °C

Detection: UV@280nm

Sample: 1= Chlorogenic Acid, 2= Caffeine, 3= Caffeic acid

Instrument

Hitachi Chromaster®

Detector: 5410

Oven: 5310

AutoSampler: 5260

Pump: 5160

