Waters™

Application Note

# Flavonoids in Ginkgo

Waters Corporation

This is an Application Brief and does not contain a detailed Experimental section.

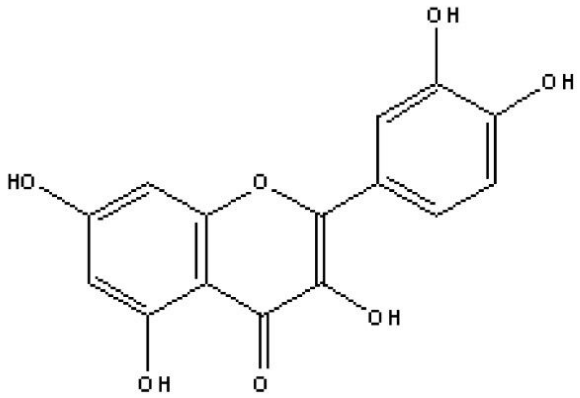
## Abstract

This application brief demonstrates analysis of flavonoids in ginkgo.

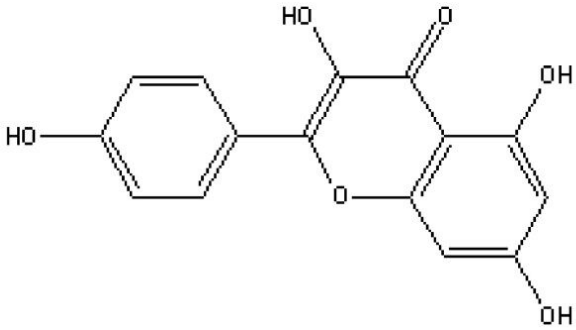
## Introduction

The compounds used in this study are –

1. Quercetin
2. Kaempferol
3. Isorhamnetin




1. Quercetin




2. Kaempferol

## Experimental

### Sample Pre-Preparation

1 g sample is refluxed in 50 mL of ethanol: 3M HCl (70:30) for 2.5 hr

The cooled sample is adjusted to exactly 100 mL

0.3 mL of the ethanolic extract is diluted 1:10 with water

- Recovery, measured with certified standards at 100 ppm in reagent water, was 82% for quercitin and >90% for the other compounds

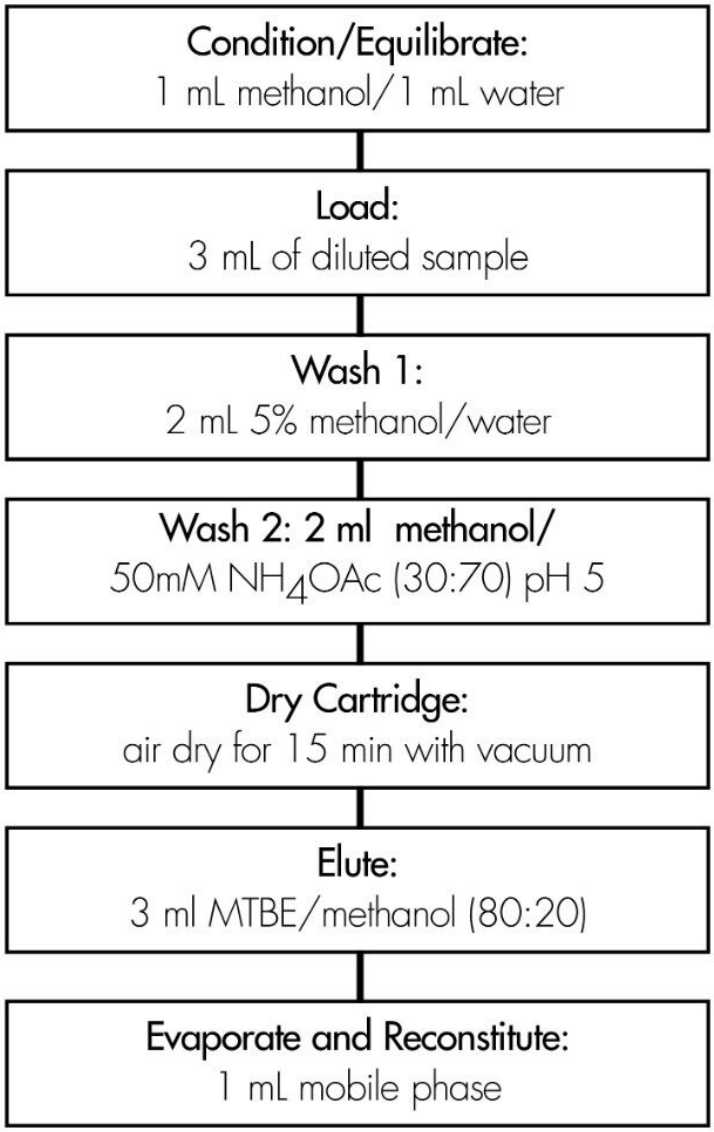
- All analyses gave results within ±40% of the expected values with the exception of the capsule (+60%)
- The selective SPE extraction and cleanup procedure provided a convenient analysis of ginkgo flavonoids in a complex matrix (Herbal One with 16 herbal ingredients)

## HPLC Method

| | |
|---|---|
| Column: | Symmetry $C_{18}$, 4.6 x 250 mm, 5 µm |
| Part number: | WAT054275 |
| Mobile phase: | 0.5% Phosphoric acid/Methanol 50:50 |
| Flow rate: | 1.5 mL/min |
| Injection volume: | 10 µL |
| Temperature | 25° C |
| Detection: | UV @ 270 nm 0.02 AUFS |

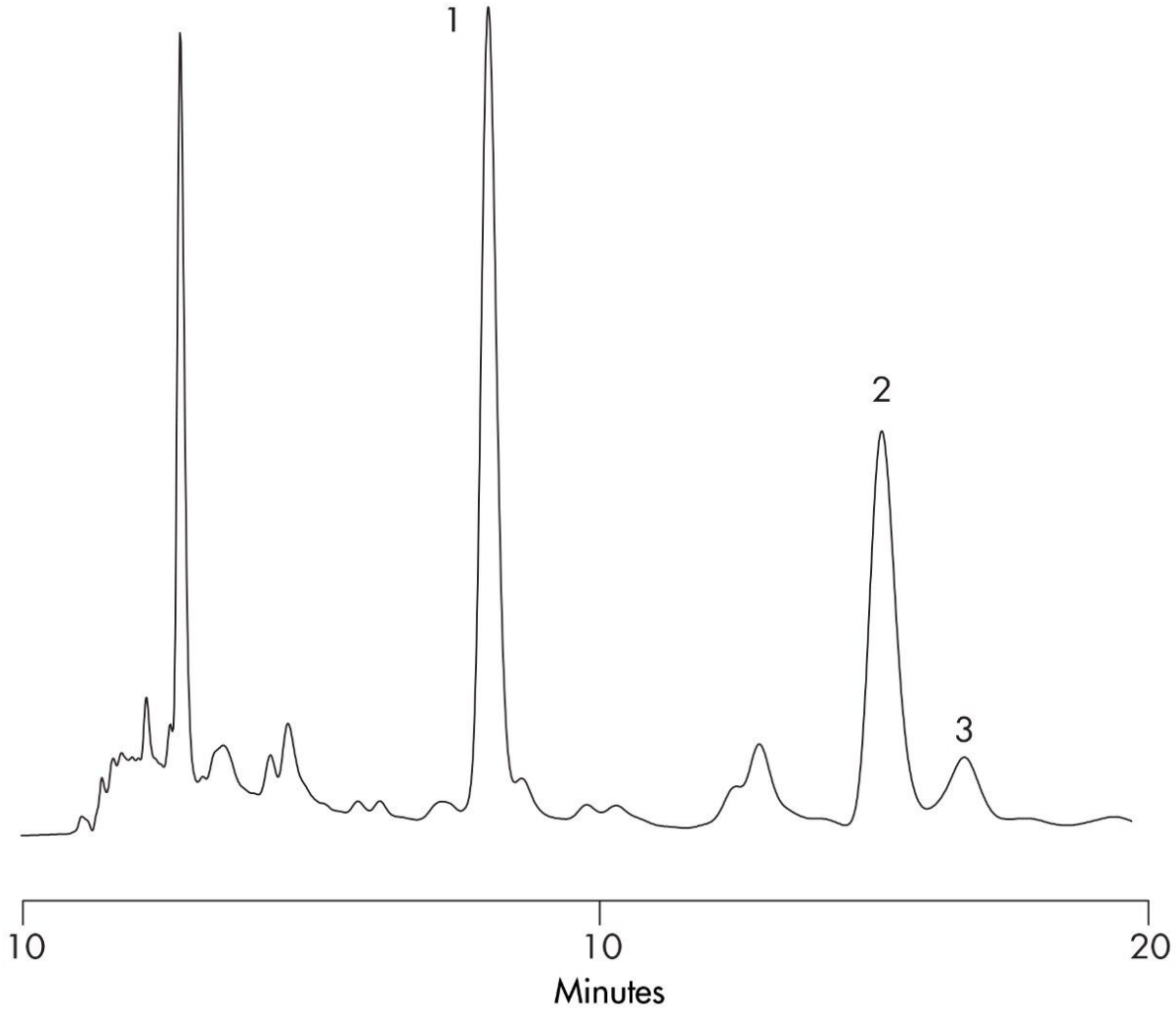
## Oasis® HLB method for flavonoids in ginkgo

Conditions for Oasis® HLB cartridge, 3 cc, 60 mg
Part Number WAT094226




## Results and Discussion

| Compounds | % Recovery |
|---|---|
| 1. quercetin | 82% |
| 2. kaempferol | >90% |
| 3. isorhamnetin | >90% |
| total: 11 mg/tablet | |




## Featured Products

WA31763.84, June 2003