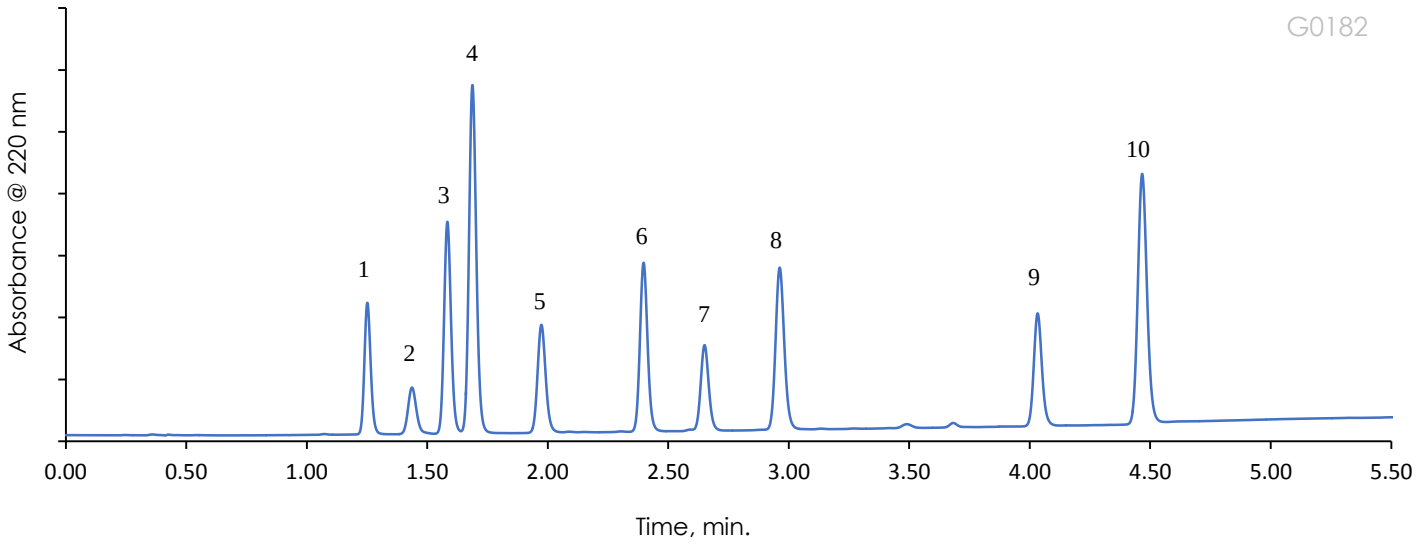
HALO | Fused-Core® Particle Technology

Application Note: 188-P

Separation of Phenolic Acids on HALO 90 Å RP-Amide, 2.7 µm



TEST CONDITIONS:

Columns: HALO 90 Å RP-Amide, 2.7 µm, 2.1 x 100 mm
Part Number: 92812-607
Mobile Phase A: 20mM Phosphoric Acid
Mobile Phase B: Methanol
Gradient:

Time	%B
0.00	25
5.00	60
5.50	60

Flow Rate: 0.5 mL/min
Initial Pressure: 345 bar
Temperature: 35°C
Detection: UV 220 nm, PDA
Injection Volume: 0.7 µL
Sample Solvent: Methanol
Data Rate: 40 Hz
Response Time: 0.025 sec.
Flow Cell: 1 µL
LC System: Shimadzu Nexera X2

PEAK IDENTITIES:

1. Homovanillic acid
2. Caffeic acid
3. Syringic acid
4. Vanillic acid
5. Chlorogenic acid
6. Sinapic acid
7. Ferulic acid
8. *p*- Coumaric acid
9. *trans*- Cinnamic acid

Phenolic acids can be found in many plant-based foods and beverages. Fruits, vegetables, and even olive oils all contain different varieties of these acids. For example, sinapic acid can be found in wine and caffeic acid can be found in coffee. These compounds act as antioxidants and can also help anti-inflammatory conditions in the body. They also affect the flavors of the food or oil. A separation of ten phenolic acids is done on a HALO 90 Å RP-Amide, 2.7 µm column with

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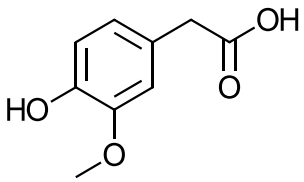
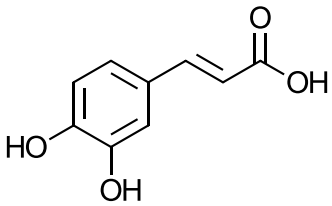
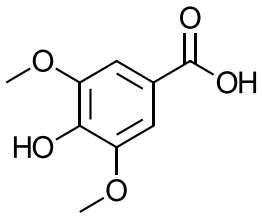
Structures of Phenolic Acids



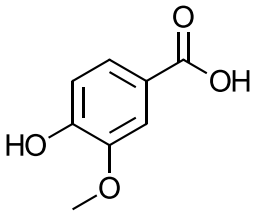
Homovanillic acid



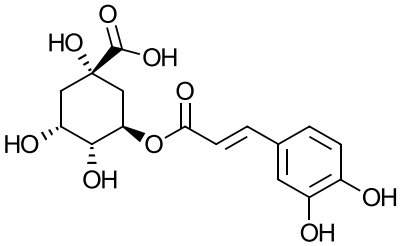
Caffeic acid



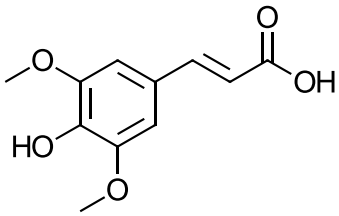
Syringic acid



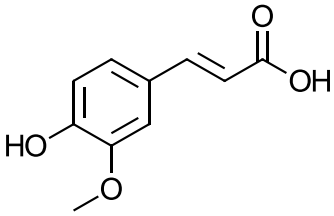
Vanillic acid



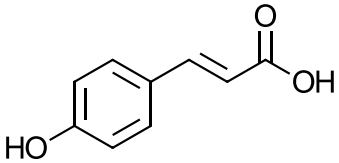
Chlorogenic acid



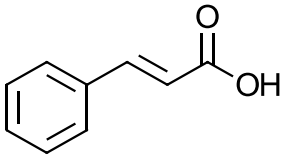
Sinapic acid



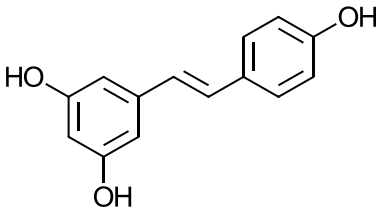
Ferulic acid



p- Coumaric acid



trans- Cinnamic acid



Resveratrol