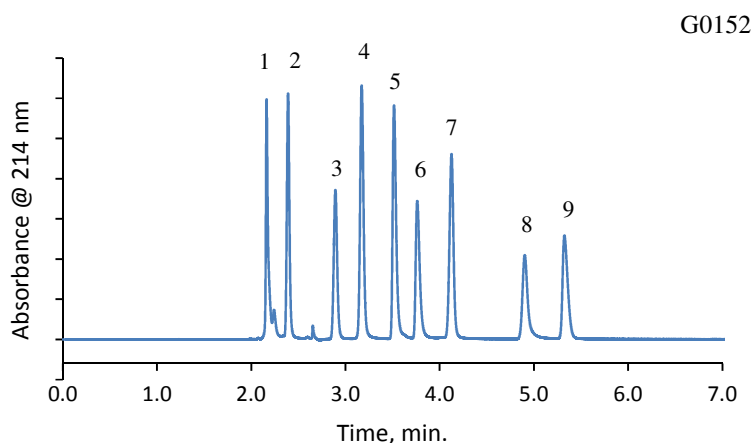


Separation of Polar Organic Acids on HALO AQ-C18



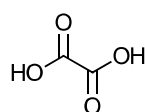
PEAK IDENTITIES:

1. Oxalic acid
2. Tartaric acid
3. Malic acid
4. Ascorbic acid
5. L-Lactic acid
6. Acetic acid
7. Citric acid
8. Succinic acid
9. Fumaric acid

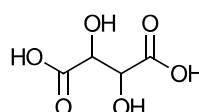
TEST CONDITIONS:

Column: HALO 90Å, AQ-C18, 2.7 µm, 4.6 x 250mm
 Part Number: 92814-922
 Isocratic: 20 mM Potassium Phosphate buffer pH: 2.7
 Flow Rate: 1.0 mL/min
 Pressure: 307 bar
 Temperature: 40°C
 Detection: UV 214 nm, PDA
 Injection Volume: 20 µL
 Sample Solvent: Mobile phase
 Data Rate: 100 Hz
 Response Time: 0.025 sec
 Flow Cell: 1 µL
 LC System: Shimadzu Nexera X2

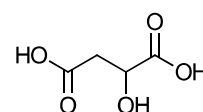
STRUCTURES:



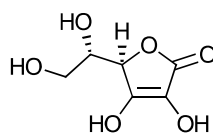
Oxalic acid



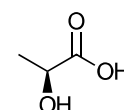
Tartaric acid



Malic acid



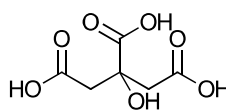
Ascorbic acid



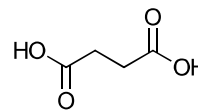
L-Lactic acid



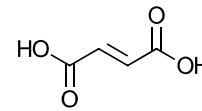
Acetic acid



Citric acid



Succinic acid



Fumaric acid

Organic acids are common in the food and beverage industry and can be found in many sample types such as fruits, vegetables, and wines. This separation of nine polar organic acids is performed on a HALO AQ-C18 column using 100% aqueous mobile phase at low pH. The 250 mm column length was chosen to provide excellent resolution with reasonable run time for this polar mixture.