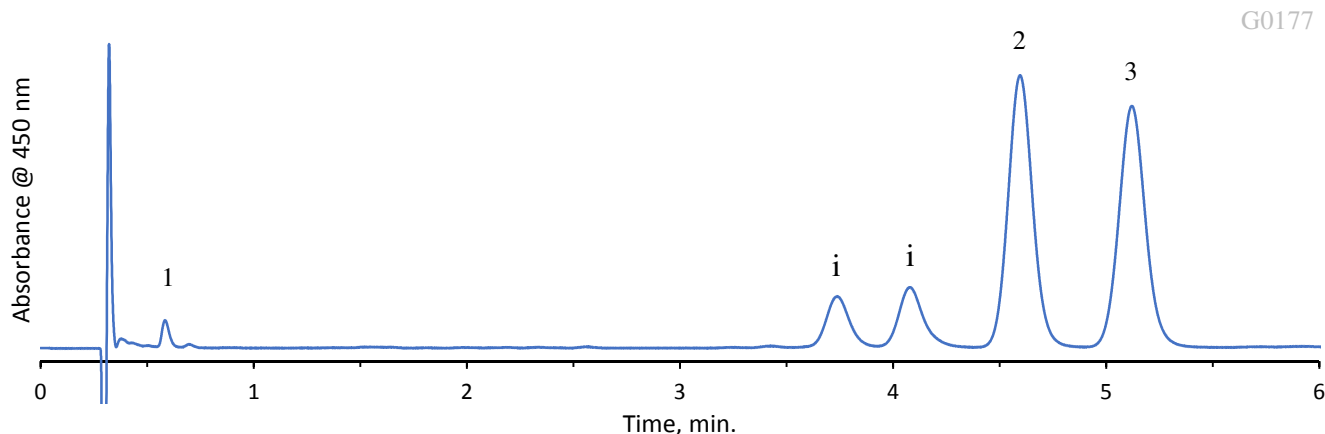


## Carotenoids Extracted from Carrot Juice Analyzed using HALO® C30



### TEST CONDITIONS:

Column: HALO 160 Å C30, 2.7 µm, 2.1 x 50 mm

Part Number: 92112-430

Isocratic: 100 % Methanol

Flow Rate: 0.4 mL/min

Pressure: 100 bar

Temperature: 30°C

Detection: UV 450 nm, PDA

Injection Volume: 2.5 µL

Sample Solvent: Methanol/ Isopropyl alcohol

Data Rate: 40 Hz

Response Time: 0.025 sec.

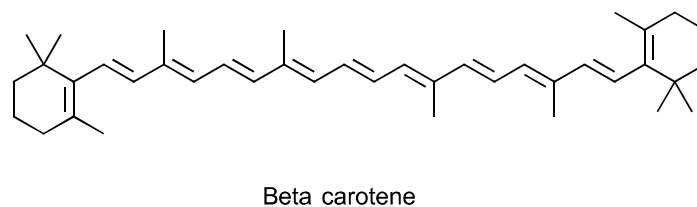
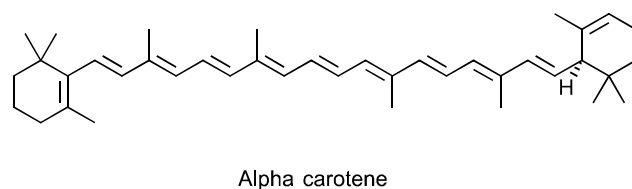
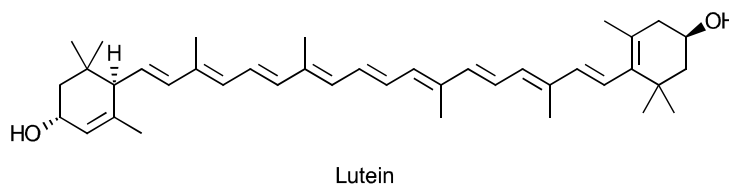
Flow Cell: 1 µL

LC System: Shimadzu Nexera X2

### PEAK IDENTITIES:

1. Lutein
2. α-carotene
3. β-carotene
- i. unidentified isomers

### STRUCTURES:



The carotenoids lutein, α-carotene, and β-carotene were isolated from a commercially available carrot juice using liquid liquid extraction. Carotenes are responsible for the orange color in vegetables such as carrots and are considered antioxidants. The separation was performed on a HALO C30 column with high resolution between the α- and β-carotene peaks.