



## Detection of Flavonoids, in Citrus Fruit Juice, using the Orochem Reliasil HPLC column

Column Engineering, an Orochem Technologies Inc. Company

**Abstract:**

The detection and quantitation of Flavonoids in Orange Juice may be effected via the following procedure. This method can show if juices are blended as a result of the flavor specific flavonoid being present.

**Sample preparation:**

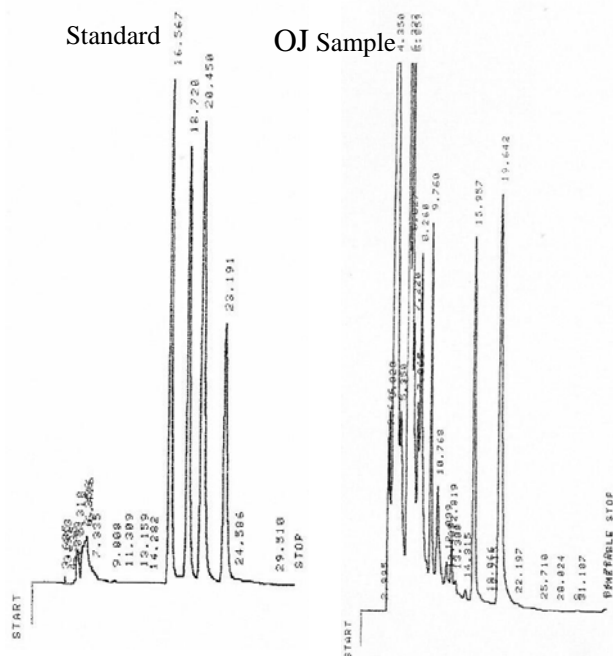
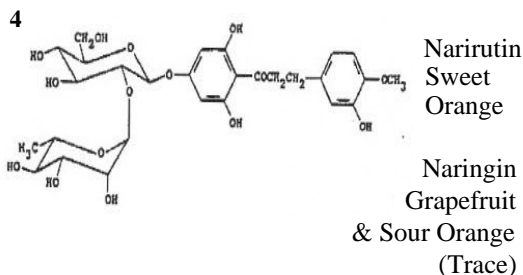
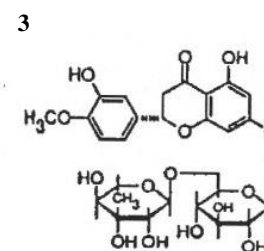
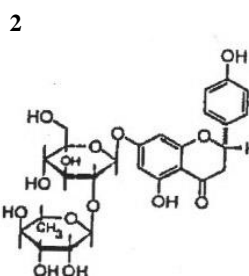
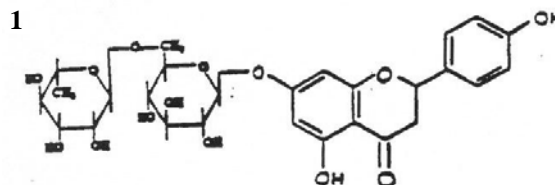
Actual Orange Juice—Single Strength, 1 to 1 dilution with de-ionized water. Inject this solution directly into the HPLC

**Standard preparation:**

20 ppm of each Citrus Flavonoid Standard—Narirutin, Naringin, Hesperidin, Neohesperidin.

**HPLC conditions:**

Mobile Phase: 20% Acetonitrile, 78% Water with 3.32g KH<sub>2</sub>PO<sub>4</sub> + 78µl H<sub>3</sub>PO<sub>4</sub> (85%)  
 Detection: UV @ 280nm  
 Flow Rate: 0.5ml/min  
 Column: Reliasil 5µm ODS1 250 × 4.6 mm



Hesperidin—Sweet Oranges & Lemons  
(Grapefruit—only trace)