

Analysis of Curcumin in Nutrient Drinks

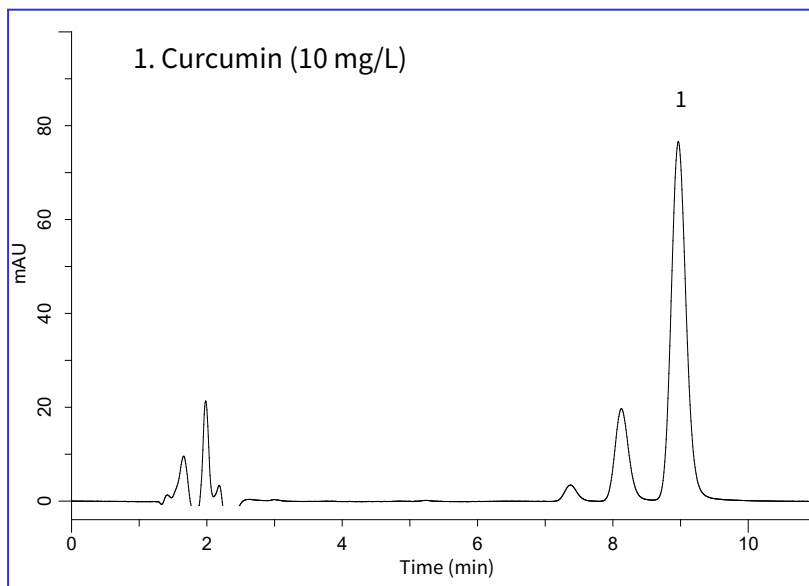
Curcumin, a yellow pigment found in turmeric, is a type of polyphenol. Curcumin, also known as turmeric (Turmeric) and is commonly used as a spice in foods such as curry. Indications include hangover prevention, as well as antioxidant and anticancer effects, bile secretion and strengthened liver function. It is also said to have anti-inflammatory properties.

In this application, the samples measured were nutrient drinks containing turmeric.

Commercially available curcumin reference standards may contain impurities, but the use of Inertsil ODS-4 has enabled good separation of the impurities from curcumin.

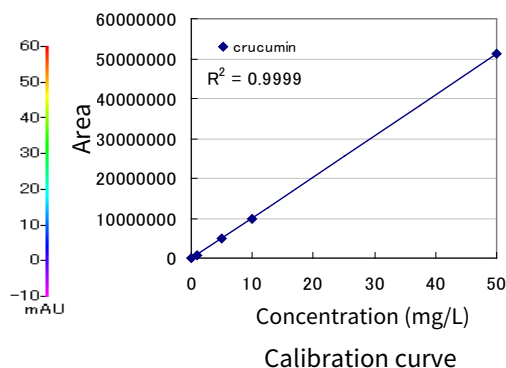
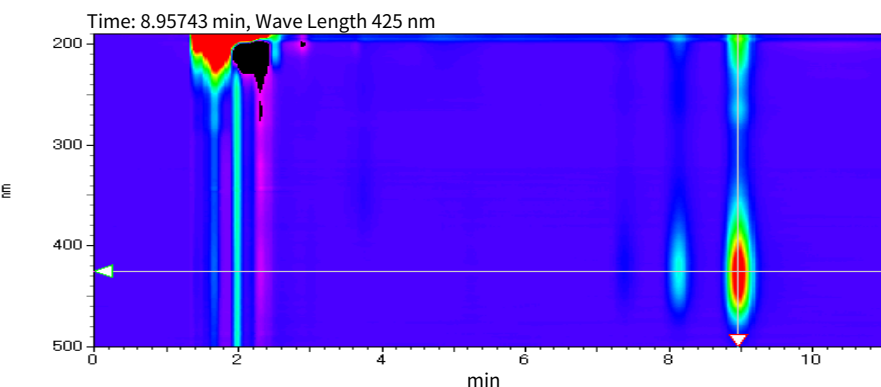
(Y.Tanaka)

Example: Measurement of standard

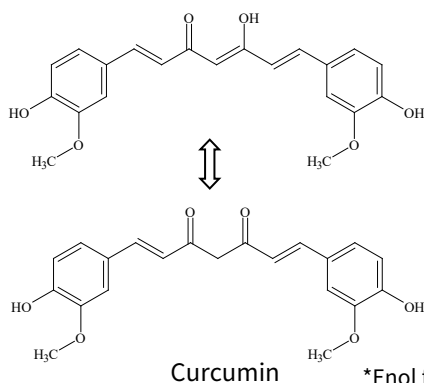


HPLC conditions

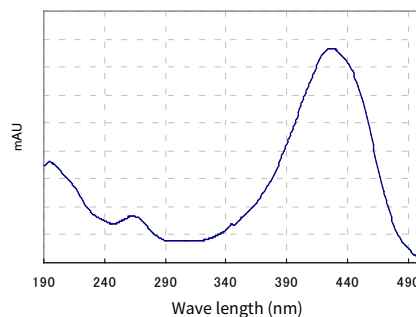
Column	: Inertsil ODS-4 (5 μ m, 150 x 3.0 mm I.D.)
Eluent	: A) CH ₃ CN B) H ₂ O A/B = 50/50, v/v (Mixed by a gradient mixer)
Flow rate	: 0.4 mL/min
Column temperature	: 40 °C
Detected	: PDA 425 nm
Injection volume	: 10 μ L



Structural formula and UV spectrum



*Enol form is stable in liquid

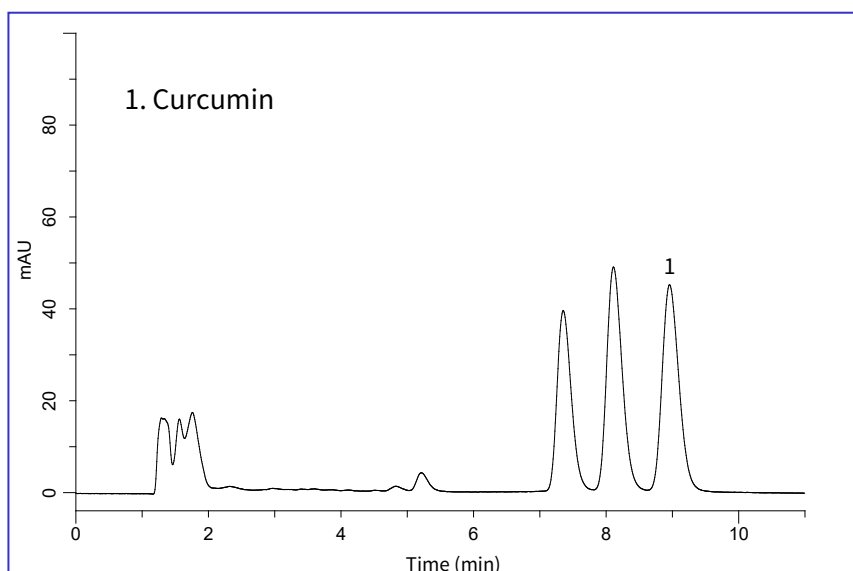


Measurement under analytical conditions

Example of analysis of nutrient drinks

Example of pretreatment

Samples were filtered through a 0.45 µm filter (chromatodisk) prior to injection.



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