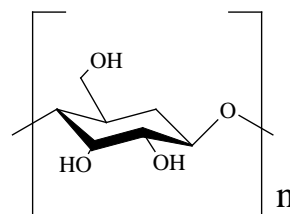


Analysis of Cyclodextrins Using HPLC with a Differential Refractive Index Detector

The analysis of cyclodextrin (CD) is presented below. It is an oligosaccharides used in health foods and as a food additives. The hollows in their ring-shaped steric structures and the inclusion properties of other molecules have been studied in several cases.

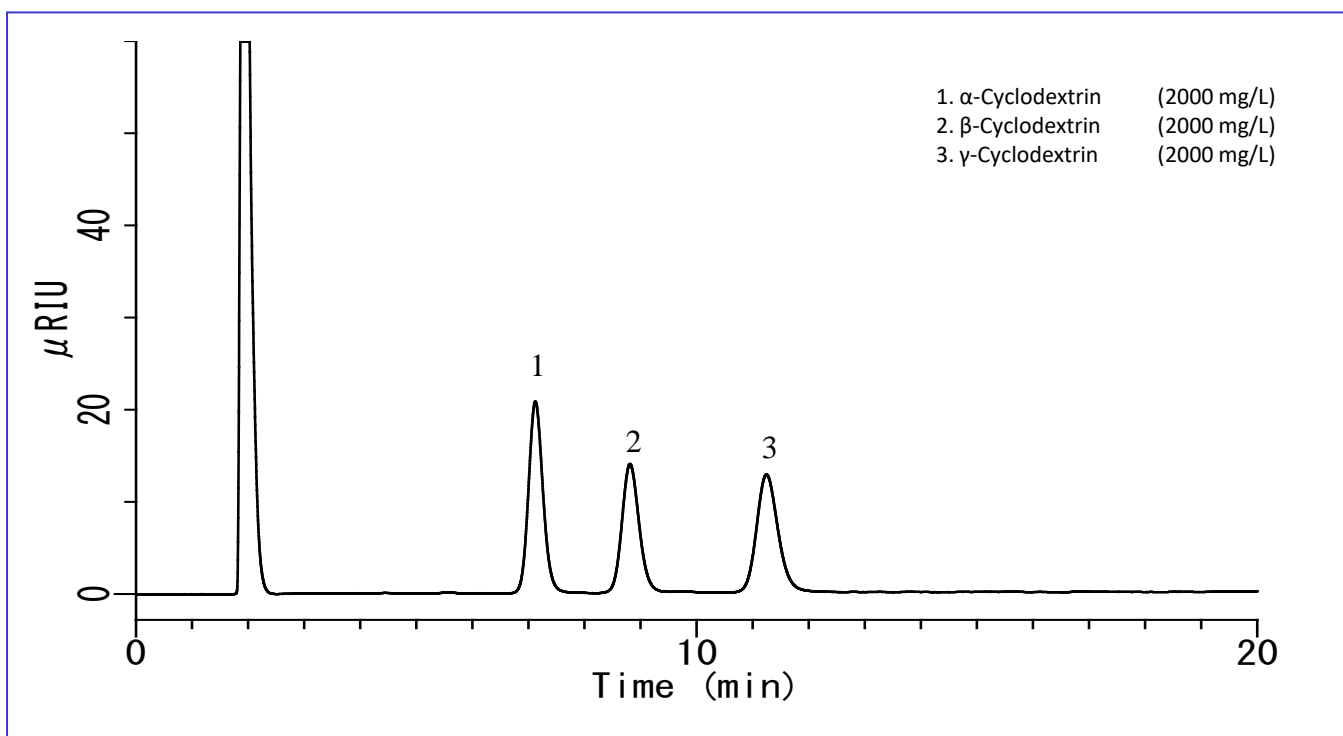
In this report, α -, β -, and γ -CD in soft drinks was analyzed using HPLC and a differential refractive index detector (RI) with good results. (K.Suzuki)

Structural formula

N=6: α -CDN=7: β -CDN=8: γ -CD
(all circular)

Structures are created using Chemistry 4-D Draw which is provided by ChemInnovation Software, Inc.

Example: Measurement of standard



HPLC conditions

Column : Inertsil NH2
(5 μ m, 150 x 4.6 mm I.D.)

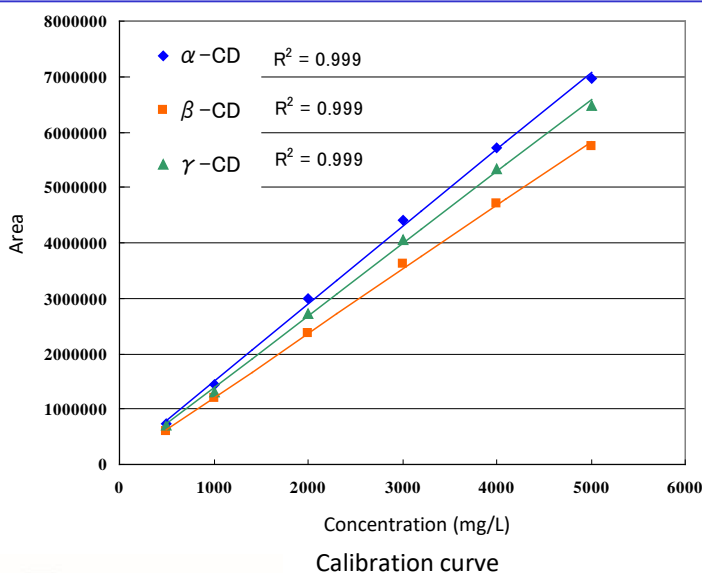
Eluent : A) CH₃ CN
B) H₂O
A/B = 65/35, v/v

Flow rate : 1.0 mL/min

Column temperature: 40 °C

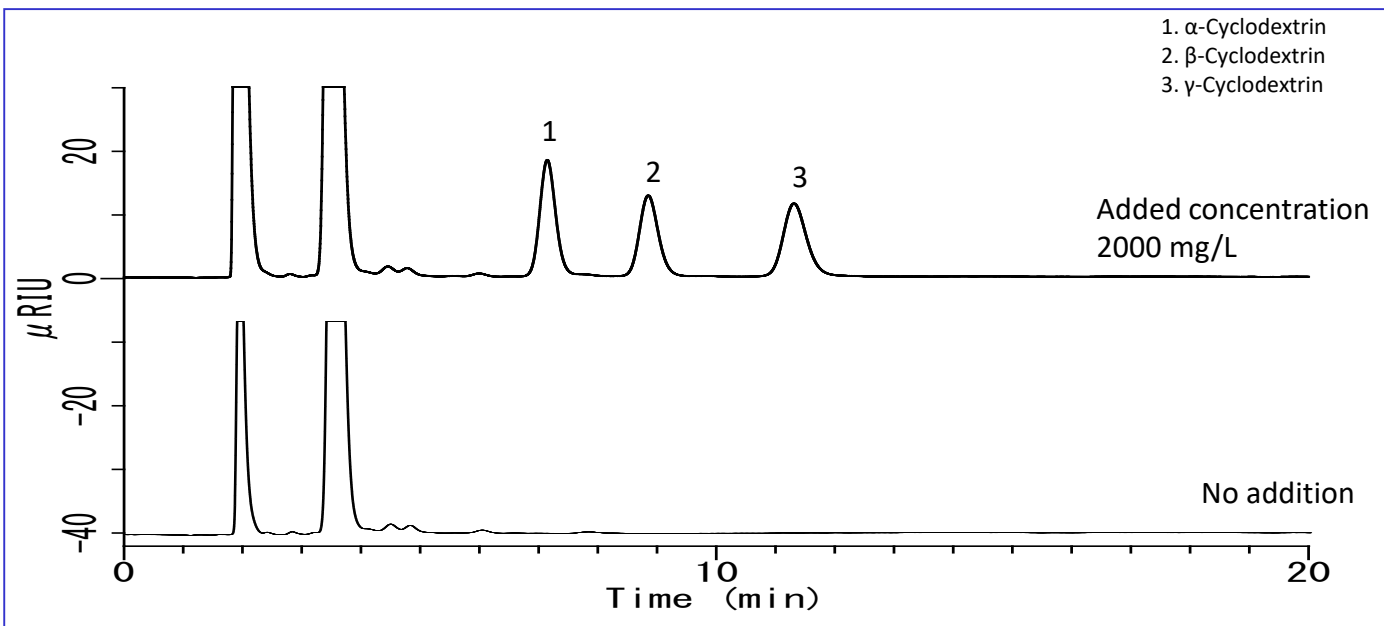
Detection : RI

Injection volume : 20 μ L



Examples of analysis of soft drinks

Soft drinks were filtered through a 0.45 μm filter for analysis.



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