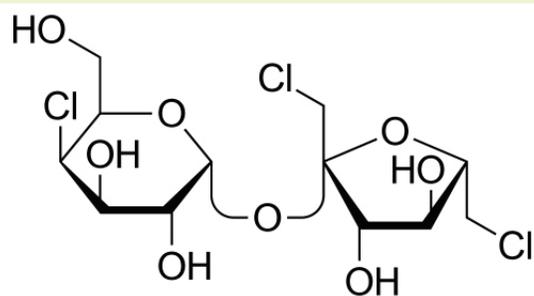
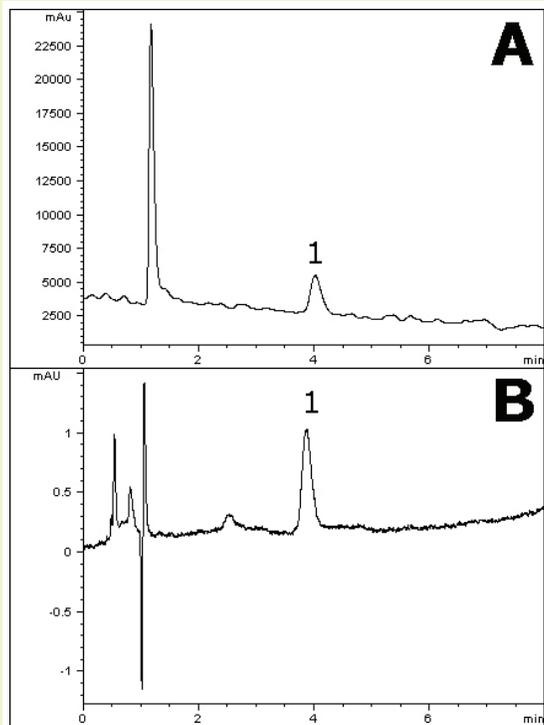


Sucralose

Common artificial sweetener



Sucralose

Note: The discovery of sucralose is quite serendipitous. Researcher Shashikant Phadnis was asked by his adviser Leslie Hough to “test” a particular chlorinated sugar compound they had been studying. However, Phadnis misheard him and thought he was being asked to “taste” it instead! Upon doing so, he found it to be much sweeter than ordinary table sugar.

Method Conditions

Column: Cogent Bidentate C18™, 4µm, 100Å

Catalog No.: 40018-75P

Dimensions: 4.6 x 50 mm

Mobile Phase: 90% DI H₂O / 10% acetonitrile (v/v)

Injection vol.: 2µL

Flow rate: 1.0 mL/min

Detection: Fig. A: Refractive Index
Fig. B: UV 200 nm

Sample: 5.0 mg/mL sucralose reference standard in diluent of 85% DI H₂O / 15% acetonitrile.

Peak: 1. Sucralose

t₀: 1.0 min

Discussion

Sucralose does not exhibit significant UV absorption, and hence detection of this analyte may be suited to refractive index (RI) as an alternative. Both approaches are shown in this application note, where UV and RI detector modules were attached in series. The relatively high concentration used in this example allowed for adequate detection in either case.

These conditions were adapted from the USP assay method. A slight modification in the water content was made to obtain higher retention.