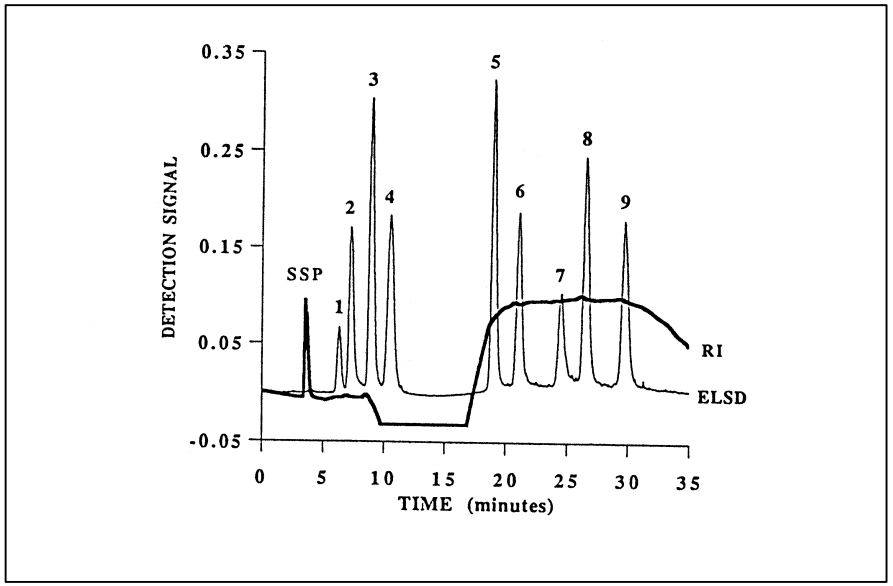
DDL 31 *Applications* N° 22

IDENTIFICATION OF SUGARS BY HPLC USING ELSD AND RI WITH GRADIENT ELUTION



1: Rhamnose 2: Xylose 3: Fructose 4: Glucose
5: Sucrose 6: Maltose 7: Melibiose 8: Melezitose
9: Raffinose

A. Clement; D. Yong, C. Brechet, Journal of Liquid Chromatography

Sugars extracted from biological tissues can be identified using a number of analytical techniques. GC and HPLC are well suited to analyse. According to the kinds of sugars, several types of columns are employed. Until recently the most popular chromatographic detection system was RI. But refractometry has some limitations : control and regulation of the temperature, low sensitivity, and no possibility to use gradient elution. Thus ELSD is a good choice.

Chromatographic conditions :

Column : Shodex Asiapak NH_2P-5

Mobile phase A : ACN

Mobile phase B : H_2O

Flow Rate : 1 ml/min

Gradient:

Tmin	**0**	**4**	**8**	**17**	**21**	**22**	**35**
A%	80	80	88	75	75	80	80
B%	20	20	12	25	25	20	20

ELSD Temperature : 40°C

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