

## **The fingerprint of plants' polysaccharides**

Morlock G., Schick D., Gamlich F., Schwack W.

University of Hohenheim, Institute of Food Chemistry, Garbenstr. 28, 70599 Stuttgart,  
Germany

Polysaccharides of plants have distinct properties: They bind water and have storage or structural capacities. Polysaccharides are isolated from terrestrial plants, legume seed and seaweed. But also many organic derivatives of them are on the market. In nutraceuticals, food, pharmaceuticals or other products, they are used as thickening agents to increase the viscosity, to build stable gels or to improve suspensions or emulsions.

As analytical methods, GC or TLC are described in the § 64 LFGB standard method L 00.00-13 [1] and mostly used after isolation and methanolysis of the polysaccharides. In this study, the TLC method of 1986 was significantly improved and the new HPTLC method now allows the clear identification of the formed methyl glycosides and methyl glycoside methyl esters. Exemplarily shown for milk and apple juice matrices, recovery rates of the polysaccharides were determined and the results obtained by HPTLC were compared with GC.

[1] BgVV, Amtliche Sammlung von Untersuchungsverfahren nach § 64 LFGB, Methode L 00.00-13, Beuth Verlag, Berlin, November 1986.