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Pectin: Structure and Function. A Special Issue Dedicated to Professor Walter Pilnik

Guest Editor: Vic Morris

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United Kingdom*

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Professor Walter Pilnik

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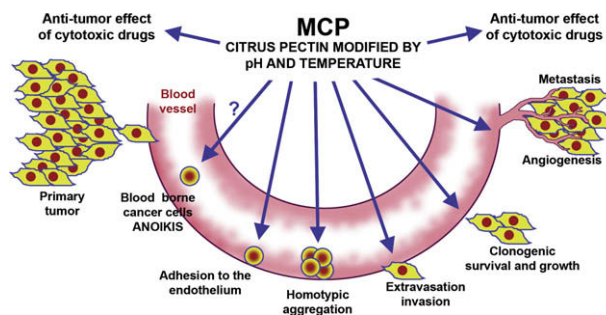
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REVIEWS

Modified citrus pectin anti-metastatic properties: one bullet, multiple targets

Vladislav V. Glinsky^{*}, Avraham Raz^{*}

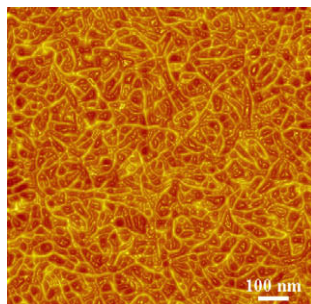
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The structure of high-methoxyl sugar acid gels of citrus pectin as determined by AFM

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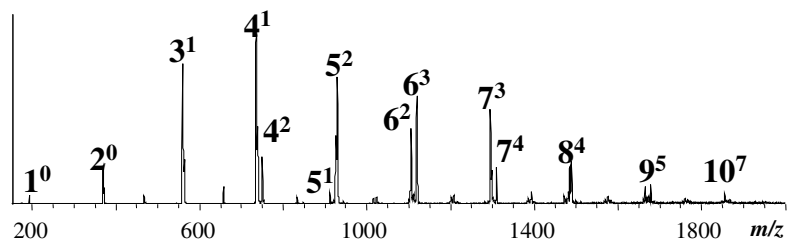
FULL PAPERS

Mass spectrometry for pectin structure analysis

pp 1798–1807

Marie-Christine Ralet *, Patrice Lerouge, Bernard Quémener

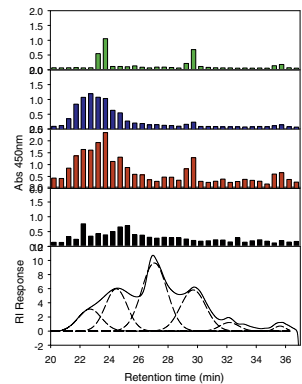
Pectin endo-polygalacturonase digest (dpGalA^{DM})



Fingerprinting complex pectins by chromatographic separation combined with ELISA detection

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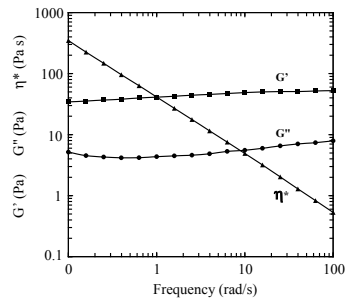
René Verhoef, Yu Lu, J. Paul Knox, Alphons G.J. Voragen, Henk A. Schols *



Gelation of high-methoxy pectin by enzymic de-esterification in the presence of calcium ions: a preliminary evaluation

pp 1818–1823

Aileen B. O'Brien, Kevin Philp, Edwin R. Morris *



Cohesive gels are formed when high-methoxy pectin is de-esterified by fungal pectin methyl esterase in the presence of calcium ions.

Characterisation of cell wall polysaccharides from okra (*Abelmoschus esculentus* (L.) Moench)

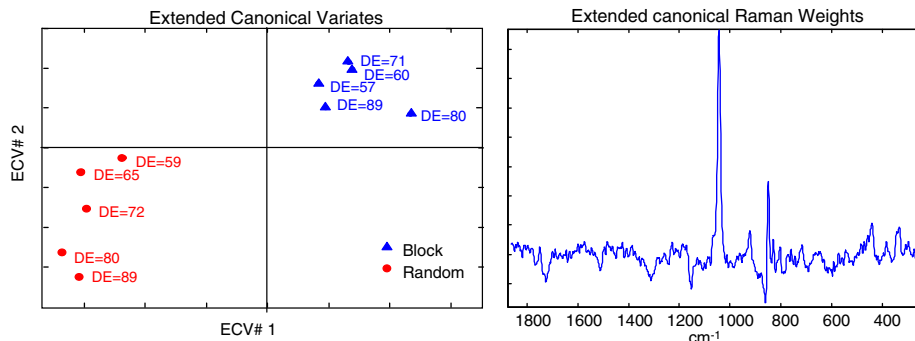
pp 1824–1832

Nipaporn Sengkhamparn, René Verhoef, Henk A. Schols, Tanaboon Sajjaanantakul, Alphons G.J. Voragen *

	Yield (g/100gAIS)	Rha	Ara	Fuc	Xyl	Man (mol%)	Gal	Glc	GalA	GlcA	DA(%)	DM(%)	Carbohydrate content	Protein content
AIS		3(2)	5(2)	0	5(2)	3(2)	17(10)	44(25)	16(14)	7(1.7)	40	59	57.5	15.8
HBSS	11.2	26(2.5)	0	0	0	0	34(3.2)	1 (0.1)	35(4.0)	3(0.3)	58	24	90.0	3.5
CHSS	4.8	14(0.5)	3(0.1)	0	0	0	17(0.6)	1(0)	63(3.0)	2(0.1)	18	48	86.2	10.5
DASS	13.2	13(1.2)	13(1.0)	0	0	0	19(1.8)	4(0.4)	48(5.5)	2(0.2)	- ^d	- ^d	76.9	16.6
CASS	4.1	1(0.05)	3(0.1)	2(0.1)	27(0.8)	3(0.1)	8(0.3)	52(2.0)	3(0.1)	1(0.1)	- ^d	- ^d	86.8	13.2
RES	26.5	3(0.5)	5(0.8)	0	5(0.9)	tr(0)	7(1.3)	78(15.3)	0	1(0.2)	- ^d	- ^d	73.7	16.1

Quantification of blockiness in pectins—A comparative study using vibrational spectroscopy and chemometrics

pp 1833–1841

Hanne Winning^{*}, Nanna Viereck, Tina Salomonsen, Jan Larsen, Søren B. Engelsen**Okra pectin contains an unusual substitution of its rhamnosyl residues with acetyl and alpha-linked galactosyl groups**

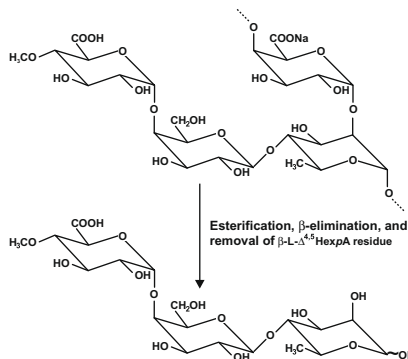
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Nipaporn Sengkhampan, Edwin J. Bakx, René Verhoef, Henk A. Schols, Tanaboon Sajjaanantakul, Alphons G.J. Voragen^{*}

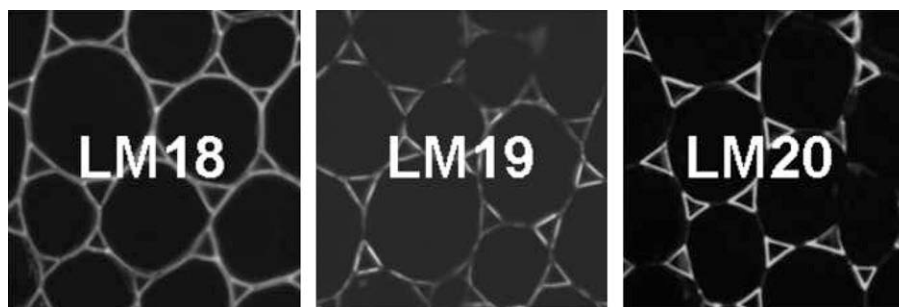
Okra RG I	H-1	H-2	H-3	H-4	H-5	H-6	Ratio
1,2,4,- α -L-Rha	5.238	4.227	5.249	3.903 (78.11)	3.965 (69.33)	1.332 (18.19)	1
1,4- α -D-GalA (RG I)	4.984	3.947	4.109	4.441	4.555		0.92
t- α -D-Gal	4.952 (101.57)	3.808 (70.55)	3.923 (70.29)	4.039	4.399 (72.06)	3.967 (61.84)	1
1,4- β -D-Gal	4.603	3.477	3.743	4.025	-	-	0.66
t- β -D-Gal	4.492 (104.98)	3.428	3.647	3.891	-	-	0.69
CH3 (<i>O</i> -Acetyl)	2.106 (22.09)						0.98
COO	174.91						

Improved procedures for the selective chemical fragmentation of rhamnogalacturonans

pp 1852–1857

Chenghua Deng, Malcolm A. O'Neill, Michael G. Hahn, William S. York^{*}**An extended set of monoclonal antibodies to pectic homogalacturonan**

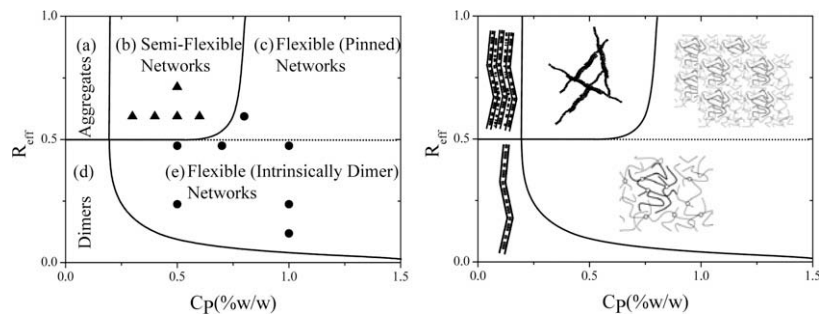
pp 1858–1862

Yves Verhertbruggen, Susan E. Marcus, Ash Haeger, José J. Ordaz-Ortiz, J. Paul Knox^{*}

Microrheological investigations give insights into the microstructure and functionality of pectin gels

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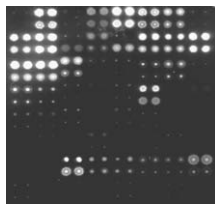
Romaric R. Vincent, Martin A.K. Williams *



An array of possibilities for pectin

pp 1872–1878

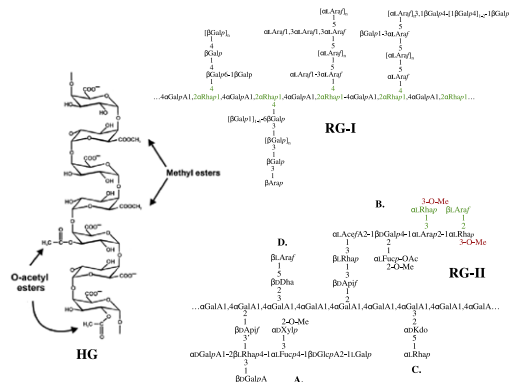
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The structure, function, and biosynthesis of plant cell wall pectic polysaccharides

pp 1879–1900

Kerry Hosmer Caffall, Debra Mohnen *



*Corresponding author

COVER

High-mannose-type asparagine-linked glycans play critical roles in glycoprotein processing and quality control in the endoplasmic reticulum. However, the analysis of these events has been hindered by the limited availability of glycan substrates. Work by Ito and co-workers has enabled the systematic synthesis of high mannose-type glycans, which were converted to conjugates with various small molecules and proteins. These probes revealed the substrate specificities of lectins, chaperones, and glycoprotein-processing enzymes.

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