Michael Gidley

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6401870/publications.pdf

Version: 2024-02-01

236 papers	17,700 citations	9234 74 h-index	17055 122 g-index
238 all docs	238 docs citations	238 times ranked	12464 citing authors

#	Article	IF	Citations
1	Loss of crystalline and molecular order during starch gelatinisation: origin of the enthalpic transition. Carbohydrate Research, 1992, 227, 103-112.	1.1	1,046
2	A novel approach for calculating starch crystallinity and its correlation with double helix content: A combined XRD and NMR study. Biopolymers, 2008, 89, 761-768.	1.2	554
3	Heterogeneity in the chemistry, structure and function of plant cell walls. Nature Chemical Biology, 2010, 6, 724-732.	3.9	509
4	Infrared spectroscopy as a tool to characterise starch ordered structureâ€”a joint FTIRâ€“ATR, NMR, XRD and DSC study. Carbohydrate Polymers, 2016, 139, 35-42.	5.1	509
5	A Method for Estimating the Nature and Relative Proportions of Amorphous, Single, and Double-Helical Components in Starch Granules by13C CP/MAS NMR. Biomacromolecules, 2007, 8, 885-891.	2.6	337
6	Mechanisms of starch digestion by Î±-amylaseâ€”Structural basis for kinetic properties. Critical Reviews in Food Science and Nutrition, 2017, 57, 875-892.	5.4	315
7	Characterization of Starch by Size-Exclusion Chromatography: The Limitations Imposed by Shear Scission. Biomacromolecules, 2009, 10, 2245-2253.	2.6	308
8	Three classes of starch granule swelling: Influence of surface proteins and lipids. Carbohydrate Polymers, 2006, 64, 452-465.	5.1	298
9	Relationship between granule size and in vitro digestibility of maize and potato starches. Carbohydrate Polymers, 2010, 82, 480-488.	5.1	271
10	Re-evaluation of the mechanisms of dietary fibre and implications for macronutrient bioaccessibility, digestion and postprandial metabolism. British Journal of Nutrition, 2016, 116, 816-833.	1.2	255
11	Influence of different carbon sources on bacterial cellulose production by<i>Gluconacetobacter xylinus</i>strain ATCC 53524. Journal of Applied Microbiology, 2009, 107, 576-583.	1.4	233
12	Effect of particle size on kinetics of starch digestion in milled barley and sorghum grains by porcine alpha-amylase. Journal of Cereal Science, 2009, 50, 198-204.	1.8	218
13	In vitro assembly of cellulose/xyloglucan networks: ultrastructural and molecular aspects. Plant Journal, 1995, 8, 491-504.	2.8	213
14	Rheological studies of aqueous amylose gels: the effect of chain length and concentration on gel modulus. Macromolecules, 1989, 22, 346-351.	2.2	207
15	Structure and solution properties of tamarind-seed polysaccharide. Carbohydrate Research, 1991, 214, 299-314.	1.1	207
16	Molecular Rearrangement Of Starch During In Vitro Digestion: Toward A Better Understanding Of Enzyme Resistant Starch Formation In Processed Starches. Biomacromolecules, 2008, 9, 1951-1958.	2.6	205
17	Roles of Cellulose and Xyloglucan in Determining the Mechanical Properties of Primary Plant Cell Walls. Plant Physiology, 1999, 121, 657-664.	2.3	203
18	Impact of down-regulation of starch branching enzyme IIb in rice by artificial microRNA- and hairpin RNA-mediated RNA silencing. Journal of Experimental Botany, 2011, 62, 4927-4941.	2.4	201

#	Article	IF	Citations
19	Mechanical properties of primary plant cell wall analogues. Planta, 2002, 215, 989-996.	1.6	196
20	Combined techniques for characterising pasta structure reveals how the gluten network slows enzymic digestion rate. Food Chemistry, 2015, 188, 559-568.	4.2	189
21	Structural aspects of the interaction of mannan-based polysaccharides with bacterial cellulose. Carbohydrate Research, 1998, 307, 299-309.	1.1	184
22	Intactness of cell wall structure controls the in vitro digestion of starch in legumes. Food and Function, 2016, 7, 1367-1379.	2.1	184
23	Inhibition of Î±-amylase activity by cellulose: Kinetic analysis and nutritional implications. Carbohydrate Polymers, 2015, 123, 305-312.	5.1	182
24	Complexity and health functionality of plant cell wall fibers from fruits and vegetables. Critical Reviews in Food Science and Nutrition, 2017, 57, 59-81.	5.4	178
25	Highâ€Amylose Starches to Bridge the â€œFiber Gapâ€: Development, Structure, and Nutritional Functionality. Comprehensive Reviews in Food Science and Food Safety, 2019, 18, 362-379.	5.9	172
26	Why Do Gelatinized Starch Granules Not Dissolve Completely? Roles for Amylose, Protein, and Lipid in Granule â€œGhostâ€•Integrity. Journal of Agricultural and Food Chemistry, 2007, 55, 4752-4760.	2.4	169
27	Probing expansin action using cellulose/hemicellulose composites. Plant Journal, 2000, 22, 327-334.	2.8	166
28	Gut Fermentation of Dietary Fibres: Physico-Chemistry of Plant Cell Walls and Implications for Health. International Journal of Molecular Sciences, 2017, 18, 2203.	1.8	165
29	In vitro synthesis and properties of pectin/Acetobacter xylinus cellulose composites. Plant Journal, 1999, 20, 25-35.	2.8	146
30	Synergistic and Antagonistic Effects of Î±-Amylase and Amyloglucosidase on Starch Digestion. Biomacromolecules, 2013, 14, 1945-1954.	2.6	143
31	Interactions between polyphenols in thinned young apples and porcine pancreatic Î±-amylase: Inhibition, detailed kinetics and fluorescence quenching. Food Chemistry, 2016, 208, 51-60.	4.2	143
32	Natural products for glycaemic control: Polyphenols as inhibitors of alpha-amylase. Trends in Food Science and Technology, 2019, 91, 262-273.	7.8	136
33	Binding of polyphenols to plant cell wall analogues â€" Part 2: Phenolic acids. Food Chemistry, 2012, 135, 2287-2292.	4.2	132
34	Hydrocolloids in the digestive tract and related health implications. Current Opinion in Colloid and Interface Science, 2013, 18, 371-378.	3.4	132
35	Physicochemical and Structural Properties of Maize and Potato Starches as a Function of Granule Size. Journal of Agricultural and Food Chemistry, 2011, 59, 10151-10161.	2.4	130
36	In Vivo and In Vitro Starch Digestion: Are Current in Vitro Techniques Adequate?. Biomacromolecules, 2010, 11, 3600-3608.	2.6	127

#	Article	IF	Citations
37	Binding of dietary polyphenols to cellulose: Structural and nutritional aspects. Food Chemistry, 2015, 171, 388-396.	4.2	126
38	Densely packed matrices as rate determining features in starch hydrolysis. Trends in Food Science and Technology, 2015, 43, 18-31.	7.8	125
39	The interplay of Î±-amylase and amyloglucosidase activities on the digestion of starch in in vitro enzymic systems. Carbohydrate Polymers, 2015, 117, 192-200.	5.1	120
40	The adsorption of Î±-amylase on barley proteins affects the in vitro digestion of starch in barley flour. Food Chemistry, 2018, 241, 493-501.	4.2	118
41	Wood hemicelluloses exert distinct biomechanical contributions to cellulose fibrillar networks. Nature Communications, 2020, 11, 4692.	5.8	117
42	â€œDietary fibreâ€• moving beyond the â€œsoluble/insolubleâ€•classification for monogastric nutrition, with an emphasis on humans and pigs. Journal of Animal Science and Biotechnology, 2019, 10, 45.	2.1	116
43	Influence of Storage Conditions on the Structure, Thermal Behavior, and Formation of Enzyme-Resistant Starch in Extruded Starches. Journal of Agricultural and Food Chemistry, 2007, 55, 9883-9890.	2.4	114
44	Molecular, mesoscopic and microscopic structure evolution during amylase digestion of maize starch granules. Carbohydrate Polymers, 2012, 90, 23-33.	5.1	114
45	Action of a pure xyloglucanendo-transglycosylase (formerly called) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 427 Td (xyloglucan- Plant Journal, 1993, 3, 691-700.	2.8	113
46	Freeze-Drying Changes the Structure and Digestibility of B-Polymorphic Starches. Journal of Agricultural and Food Chemistry, 2014, 62, 1482-1491.	2.4	113
47	3 or 3â€²-Galloyl substitution plays an important role in association of catechins and theaflavins with porcine pancreatic Î±-amylase: The kinetics of inhibition of Î±-amylase by tea polyphenols. Journal of Functional Foods, 2016, 26, 144-156.	1.6	113
48	Mechanical effects of plant cell wall enzymes on cellulose/xyloglucan composites. Plant Journal, 2004, 38, 27-37.	2.8	112
49	Digestion of isolated legume cells in a stomach-duodenum model: three mechanisms limit starch and protein hydrolysis. Food and Function, 2017, 8, 2573-2582.	2.1	111
50	A Rapid <i>Inâ€•vitro</i> Digestibility Assay Based on Glucometry for Investigating Kinetics of Starch Digestion. Starch/Staerke, 2009, 61, 245-255.	1.1	110
51	Effect of cryo-milling on starches: Functionality and digestibility. Food Hydrocolloids, 2010, 24, 152-163.	5.6	107
52	Food Starch Structure Impacts Gut Microbiome Composition. MSphere, 2018, 3, .	1.3	106
53	Effects of starch synthase IIa gene dosage on grain, protein and starch in endosperm of wheat. Theoretical and Applied Genetics, 2007, 115, 1053-1065.	1.8	100
54	Mechanical and structural properties of native and alkali-treated bacterial cellulose produced by Gluconacetobacter xylinus strain ATCC 53524. Cellulose, 2009, 16, 1047-1055.	2.4	100

#	Article	IF	Citations
55	Dietary fibre for glycaemia control: Towards a mechanistic understanding. Bioactive Carbohydrates and Dietary Fibre, 2018, 14, 39-53.	1.5	100
56	Binding selectivity of dietary polyphenols to different plant cell wall components: Quantification and mechanism. Food Chemistry, 2017, 233, 216-227.	4.2	97
57	Effects of structural variation in xyloglucan polymers on interactions with bacterial cellulose. American Journal of Botany, 2006, 93, 1402-1414.	0.8	95
58	Mechanism for Starch Granule Ghost Formation Deduced from Structural and Enzyme Digestion Properties. Journal of Agricultural and Food Chemistry, 2014, 62, 760-771.	2.4	95
59	Structure of Acetobacter cellulose composites in the hydrated state. International Journal of Biological Macromolecules, 2001, 29, 193-202.	3.6	92
60	Rice starch granule amylolysis â€" Differentiating effects of particle size, morphology, thermal properties and crystalline polymorph. Carbohydrate Polymers, 2015, 115, 305-316.	5.1	92
61	Enzyme resistance and structural organization in extruded high amylose maize starch. Carbohydrate Polymers, 2010, 80, 699-710.	5.1	89
62	Lack of release of bound anthocyanins and phenolic acids from carrot plant cell walls and model composites during simulated gastric and small intestinal digestion. Food and Function, 2013, 4, 906.	2.1	88
63	Mechanical properties of bacterial cellulose synthesised by diverse strains of the genus Komagataeibacter. Food Hydrocolloids, 2018, 81, 87-95.	5.6	88
64	Functional categorisation of dietary fibre in foods: Beyond â€˜solubleâ€™ vs â€˜insolubleâ€™. Trends in Food Science and Technology, 2019, 86, 563-568.	7.8	88
65	Characterisation of sweetpotato from Papua New Guinea and Australia: Physicochemical, pasting and gelatinisation properties. Food Chemistry, 2011, 126, 1759-1770.	4.2	84
66	Relationships between protein content, starch molecular structure and grain size in barley. Carbohydrate Polymers, 2017, 155, 271-279.	5.1	84
67	Mucin gel assembly is controlled by a collective action of non-mucin proteins, disulfide bridges, Ca2+-mediated links, and hydrogen bonding. Scientific Reports, 2018, 8, 5802.	1.6	84
68	Effect of Carrot (Daucus carota) Microstructure on Carotene Bioaccessibilty in the Upper Gastrointestinal Tract. 1. In Vitro Simulations of Carrot Digestion. Journal of Agricultural and Food Chemistry, 2010, 58, 9847-9854.	2.4	83
69	The mechanism of interactions between tea polyphenols and porcine pancreatic alphaâ€amylase: Analysis by inhibition kinetics, fluorescence quenching, differential scanning calorimetry and isothermal titration calorimetry. Molecular Nutrition and Food Research, 2017, 61, 1700324.	1.5	81
70	Application of X-ray and neutron small angle scattering techniques to study the hierarchical structure of plant cell walls: A review. Carbohydrate Polymers, 2015, 125, 120-134.	5.1	80
71	Tensile deformation of bacterial cellulose composites. International Journal of Biological Macromolecules, 2003, 32, 28-35.	3.6	79
72	Interactions among macronutrients in wheat flour determine their enzymic susceptibility. Food Hydrocolloids, 2016, 61, 415-425.	5.6	79

#	Article	IF	Citations
73	Starch Digestion Mechanistic Information from the Time Evolution of Molecular Size Distributions. Journal of Agricultural and Food Chemistry, 2010, 58, 8444-8452.	2.4	78
74	Unique Aspects of the Structure and Dynamics of Elementary I<i>Î²</i> Cellulose Microfibrils Revealed by Computational Simulations Â. Plant Physiology, 2015, 168, 3-17.	2.3	77
75	Location and interactions of starches in planta: Effects on food and nutritional functionality. Trends in Food Science and Technology, 2019, 93, 158-166.	7.8	77
76	Intact cellular structure in cereal endosperm limits starch digestion inÂvitro. Food Hydrocolloids, 2018, 81, 139-148.	5.6	76
77	Compact structure and proteins of pasta retard in vitro digestive evolution of branched starch molecular structure. Carbohydrate Polymers, 2016, 152, 441-449.	5.1	75
78	Altering starch branching enzymes in wheat generates high-amylose starch with novel molecular structure and functional properties. Food Hydrocolloids, 2019, 92, 51-59.	5.6	75
79	Structure of cellulose microfibrils in mature cotton fibres. Carbohydrate Polymers, 2017, 175, 450-463.	5.1	74
80	Characteristics of starch-based films plasticised by glycerol and by the ionic liquid 1-ethyl-3-methylimidazolium acetate: A comparative study. Carbohydrate Polymers, 2014, 111, 841-848.	5.1	69
81	Cryo-milling of starch granules leads to differential effects on molecular size and conformation. Carbohydrate Polymers, 2011, 84, 1133-1140.	5.1	68
82	Separation and Purification of Soluble Polymers and Cell Wall Fractions from Wheat, Rye and Hull less Barley Endosperm Flours for Structure-Nutrition Studies. Journal of Agricultural and Food Chemistry, 2013, 61, 12111-12122.	2.4	68
83	Rehydration of high-protein-containing dairy powder: Slow- and fast-dissolving components and storage effects. Dairy Science and Technology, 2010, 90, 335-344.	2.2	67
84	Evidence for differential interaction mechanism of plant cell wall matrix polysaccharides in hierarchically-structured bacterial cellulose. Cellulose, 2015, 22, 1541-1563.	2.4	67
85	Reduction in circulating bile acid and restricted diffusion across the intestinal epithelium are associated with a decrease in blood cholesterol in the presence of oat Î²â€glucan. FASEB Journal, 2016, 30, 4227-4238.	0.2	65
86	Interactions of pectins with cellulose during its synthesis in the absence of calcium. Food Hydrocolloids, 2016, 52, 57-68.	5.6	65
87	Diffusion and viscosity in arabinoxylan solutions: Implications for nutrition. Carbohydrate Polymers, 2010, 82, 46-53.	5.1	63
88	In Vitro Fermentation of Bacterial Cellulose Composites as Model Dietary Fibers. Journal of Agricultural and Food Chemistry, 2011, 59, 4025-4032.	2.4	63
89	Enzymatic hydrolysis of starch in the presence of cereal soluble fibre polysaccharides. Food and Function, 2014, 5, 579.	2.1	63
90	Interactions of Arabinoxylan and (1,3)(1,4)-Î²-Glucan with Cellulose Networks. Biomacromolecules, 2015, 16, 1232-1239.	2.6	63

#	ARTICLE	IF	CITATIONS
91	Quantitative structural organisation model for wheat endosperm cell walls: Cellulose as an important constituent. Carbohydrate Polymers, 2018, 196, 199-208.	5.1	61
92	High-amylose wheat starch: Structural basis for water absorption and pasting properties. Carbohydrate Polymers, 2020, 245, 116557.	5.1	61
93	In vitro fermentation kinetics and end-products of cereal arabinoxylans and (1,3;1,4)-Î²-glucans by porcine faeces. Journal of Cereal Science, 2011, 53, 53-58.	1.8	60
94	Differential effects of genetically distinct mechanisms of elevating amylose on barley starch characteristics. Carbohydrate Polymers, 2012, 89, 979-991.	5.1	59
95	InÂvitro digestion of pectin- and mango-enriched diets using a dynamic rat stomach-duodenum model. Journal of Food Engineering, 2017, 202, 65-78.	2.7	58
96	Cellulose-pectin composite hydrogels: Intermolecular interactions and material properties depend on order of assembly. Carbohydrate Polymers, 2017, 162, 71-81.	5.1	56
97	Adsorption behaviour of polyphenols on cellulose is affected by processing history. Food Hydrocolloids, 2017, 63, 496-507.	5.6	55
98	Protein-starch matrix plays a key role in enzymic digestion of high-amylose wheat noodle. Food Chemistry, 2021, 336, 127719.	4.2	55
99	Amylase binding to starch granules under hydrolysing and non-hydrolysing conditions. Carbohydrate Polymers, 2014, 113, 97-107.	5.1	54
100	Extrusion induced low-order starch matrices: Enzymic hydrolysis and structure. Carbohydrate Polymers, 2015, 134, 485-496.	5.1	54
101	Circulating triglycerides and bile acids are reduced by a soluble wheat arabinoxylan via modulation of bile concentration and lipid digestion rates in a pig model. Molecular Nutrition and Food Research, 2016, 60, 642-651.	1.5	54
102	Tea polyphenols enhance binding of porcine pancreatic Î±-amylase with starch granules but reduce catalytic activity. Food Chemistry, 2018, 258, 164-173.	4.2	53
103	A more general approach to fitting digestion kinetics of starch in food. Carbohydrate Polymers, 2019, 225, 115244.	5.1	53
104	Micromechanics and Poroelasticity of Hydrated Cellulose Networks. Biomacromolecules, 2014, 15, 2274-2284.	2.6	52
105	Multi-scale model for the hierarchical architecture of native cellulose hydrogels. Carbohydrate Polymers, 2016, 147, 542-555.	5.1	52
106	Characteristics of starch-based films with different amylose contents plasticised by 1-ethyl-3-methylimidazolium acetate. Carbohydrate Polymers, 2015, 122, 160-168.	5.1	50
107	Polyphenolâ€“cellulose interactions: effects of pH, temperature and salt. International Journal of Food Science and Technology, 2016, 51, 203-211.	1.3	50
108	Hierarchical architecture of bacterial cellulose and composite plant cell wall polysaccharide hydrogels using small angle neutron scattering. Soft Matter, 2016, 12, 1534-1549.	1.2	50

#	Article	IF	Citations
109	Hydrogen bonds and twist in cellulose microfibrils. Carbohydrate Polymers, 2017, 175, 433-439.	5.1	50
110	Effect of extrusion temperature and pre-extrusion particle size on starch digestion kinetics in barley and sorghum grain extrudates. Animal Feed Science and Technology, 2011, 168, 267-279.	1.1	49
111	Binding of arabinan or galactan during cellulose synthesis is extensive and reversible. Carbohydrate Polymers, 2015, 126, 108-121.	5.1	49
112	Wall porosity in isolated cells from food plants: Implications for nutritional functionality. Food Chemistry, 2019, 279, 416-425.	4.2	49
113	The role of thermostable proteinaceous Î±-amylase inhibitors in slowing starch digestion in pasta. Food Hydrocolloids, 2019, 90, 241-247.	5.6	49
114	Mobility-resolved 13C-NMR spectroscopy of primary plant cell walls. , 1996, 39, 51.		49
115	Gaining insight into cell wall cellulose macrofibril organisation by simulating microfibril adsorption. Cellulose, 2015, 22, 3501-3520.	2.4	48
116	Mastication effects on carotenoid bioaccessibility from mango fruit tissue. Food Research International, 2015, 67, 238-246.	2.9	48
117	Granule residues and â€œghostsâ€•remaining after heating A-type barley-starch granules in water. Carbohydrate Research, 1992, 227, 121-130.	1.1	47
118	Tribology of swollen starch granule suspensions from maize and potato. Carbohydrate Polymers, 2017, 155, 128-135.	5.1	47
119	Poroelastic Mechanical Effects of Hemicelluloses on Cellulosic Hydrogels under Compression. PLoS ONE, 2015, 10, e0122132.	1.1	47
120	Diffusion and rheology characteristics of barley mixed linkage Î²-glucan and possible implications for digestion. Carbohydrate Polymers, 2011, 86, 1732-1738.	5.1	45
121	High-resolution solid-state NMR of food materials. Trends in Food Science and Technology, 1992, 3, 231-236.	7.8	43
122	Mammalian Mucosal Î±-Glucosidases Coordinate with Î±-Amylase in the Initial Starch Hydrolysis Stage to Have a Role in Starch Digestion beyond Glucogenesis. PLoS ONE, 2013, 8, e62546.	1.1	43
123	Soluble polysaccharides reduce binding and inhibitory activity of tea polyphenols against porcine pancreatic Î±-amylase. Food Hydrocolloids, 2018, 79, 63-70.	5.6	43
124	Mechanism of binding interactions between young apple polyphenols and porcine pancreatic Î±-amylase. Food Chemistry, 2019, 283, 468-474.	4.2	43
125	Adsorption isotherm studies on the interaction between polyphenols and apple cell walls: Effects of variety, heating and drying. Food Chemistry, 2019, 282, 58-66.	4.2	43
126	Cell wall biomechanics: a tractable challenge in manipulating plant cell walls â€˜fit for purposeâ€™!. Current Opinion in Biotechnology, 2018, 49, 163-171.	3.3	42

#	Article	IF	Citations
127	Molecular interactions between cereal soluble dietary fibre polymers and a model bile salt deduced from 13C NMR titration. Journal of Cereal Science, 2010, 52, 444-449.	1.8	41
128	An arabinoxylan-rich fraction from wheat enhances caecal fermentation and protects colonocyte DNA against diet-induced damage in pigs. British Journal of Nutrition, 2012, 107, 1274-1282.	1.2	41
129	Characterisation of soluble and insoluble cell wall fractions from rye, wheat and hull-less barley endosperm flours. Food Hydrocolloids, 2014, 41, 219-226.	5.6	41
130	Effects of diverse food processing conditions on the structure and solubility of wheat, barley and rye endosperm dietary fibre. Journal of Food Engineering, 2016, 169, 228-237.	2.7	41
131	Anti-staling of high-moisture starchy food: Effect of hydrocolloids, emulsifiers and enzymes on mechanics of steamed-rice cakes. Food Hydrocolloids, 2018, 83, 454-464.	5.6	41
132	High-amylose wheat and maize starches have distinctly different granule organization and annealing behaviour: A key role for chain mobility. Food Hydrocolloids, 2020, 105, 105820.	5.6	40
133	Rheological and microstructural properties of porcine gastric digesta and diets containing pectin or mango powder. Carbohydrate Polymers, 2016, 148, 216-226.	5.1	39
134	Structural properties and digestion of green banana flour as a functional ingredient in pasta. Food and Function, 2016, 7, 771-780.	2.1	38
135	Molecular brewing: Molecular structural effects involved in barley malting and mashing. Carbohydrate Polymers, 2019, 206, 583-592.	5.1	38
136	Major Australian tropical fruits biodiversity: Bioactive compounds and their bioactivities. Molecular Nutrition and Food Research, 2012, 56, 357-387.	1.5	36
137	Molecular, mesoscopic and microscopic structure evolution during amylase digestion of extruded maize and high amylose maize starches. Carbohydrate Polymers, 2015, 118, 224-234.	5.1	36
138	Diffusion of macromolecules in self-assembled cellulose/hemicellulose hydrogels. Soft Matter, 2015, 11, 4002-4010.	1.2	36
139	Rheology and microstructure characterisation of small intestinal digesta from pigs fed a red meat-containing Western-style diet. Food Hydrocolloids, 2015, 44, 300-308.	5.6	35
140	Mapping nano-scale mechanical heterogeneity of primary plant cell walls. Journal of Experimental Botany, 2016, 67, 2799-2816.	2.4	34
141	Molecular interactions of a model bile salt and porcine bile with (1,3:1,4)-Î²-glucans and arabinoxylans probed by 13C NMR and SAXS. Food Chemistry, 2016, 197, 676-685.	4.2	34
142	High-amylose wheat bread with reduced in vitro digestion rate and enhanced resistant starch content. Food Hydrocolloids, 2022, 123, 107181.	5.6	34
143	Soluble arabinoxylan enhances large intestinal microbial health biomarkers in pigs fed a red meatâ€“containing diet. Nutrition, 2016, 32, 491-497.	1.1	33
144	Pectin impacts cellulose fibre architecture and hydrogel mechanics in the absence of calcium. Carbohydrate Polymers, 2016, 153, 236-245.	5.1	32

#	Article	IF	Citations
145	Investigation of the micro- and nano-scale architecture of cellulose hydrogels with plant cell wall polysaccharides: A combined USANS/SANS study. Polymer, 2016, 105, 449-460.	1.8	31
146	Starch branching enzymes contributing to amylose and amylopectin fine structure in wheat. Carbohydrate Polymers, 2019, 224, 115185.	5.1	31
147	Characterisation of bacterial cellulose from diverse Komagataeibacter strains and their application to construct plant cell wall analogues. Cellulose, 2017, 24, 1211-1226.	2.4	30
148	Review: Effects of fibre, grain starch digestion rate and the ileal brake on voluntary feed intake in pigs. Animal, 2019, 13, 2745-2754.	1.3	30
149	High amylose wheat starch structures display unique fermentability characteristics, microbial community shifts and enzyme degradation profiles. Food and Function, 2020, 11, 5635-5646.	2.1	30
150	Formation of Cellulose-Based Composites with Hemicelluloses and Pectins Using Gluconacetobacter Fermentation. Methods in Molecular Biology, 2011, 715, 197-208.	0.4	30
151	Kinetic analysis of bile salt passage across a dialysis membrane in the presence of cereal soluble dietary fibre polymers. Food Chemistry, 2012, 134, 2007-2013.	4.2	29
152	A Genome Wide Association Study of arabinoxylan content in 2-row spring barley grain. PLoS ONE, 2017, 12, e0182537.	1.1	29
153	The contribution of Î²-glucan and starch fine structure to texture of oat-fortified wheat noodles. Food Chemistry, 2020, 324, 126858.	4.2	28
154	Micromechanical model of biphasic biomaterials with internal adhesion: Application to nanocellulose hydrogel composites. Acta Biomaterialia, 2016, 29, 149-160.	4.1	27
155	Addition of arabinoxylan and mixed linkage glucans in porcine diets affects the large intestinal bacterial populations. European Journal of Nutrition, 2017, 56, 2193-2206.	1.8	27
156	Dietary polyphenols bind to potato cells and cellular components. Journal of Functional Foods, 2017, 37, 283-292.	1.6	26
157	Mucoadhesive functionality of cell wall structures from fruits and grains: Electrostatic and polymer network interactions mediated by soluble dietary polysaccharides. Scientific Reports, 2017, 7, 15794.	1.6	26
158	Viscoelastic properties of pectin/cellulose composites studied by QCM-D and oscillatory shear rheology. Food Hydrocolloids, 2018, 79, 13-19.	5.6	26
159	Kinetics of enthalpy relaxation of milk protein concentrate powder upon ageing and its effect on solubility. Food Chemistry, 2012, 134, 1368-1373.	4.2	25
160	Soluble arabinoxylan alters digesta flow and protein digestion of red meat-containing diets in pigs. Nutrition, 2015, 31, 1141-1147.	1.1	25
161	Mechanisms of utilisation of arabinoxylans by a porcine faecal inoculum: competition and co-operation. Scientific Reports, 2018, 8, 4546.	1.6	25
162	Isolation of wheat endosperm cell walls: Effects of non-endosperm flour components on structural analyses. Journal of Cereal Science, 2017, 74, 165-173.	1.8	24

#	Article	IF	Citations
163	<i>In vitro</i>fermentation gas kinetics and end-products of soluble and insoluble cereal flour dietary fibres are similar. Food and Function, 2018, 9, 898-905.	2.1	24
164	Structural reasons for inhibitory effects of pectin on Î±-amylase enzyme activity and in-vitro digestibility of starch. Food Hydrocolloids, 2021, 114, 106581.	5.6	24
165	Heterogeneity in maize starch granule internal architecture deduced from diffusion of fluorescent dextran probes. Carbohydrate Polymers, 2013, 93, 365-373.	5.1	23
166	Multi-scale characterisation of deuterated cellulose composite hydrogels reveals evidence for different interaction mechanisms with arabinoxylan, mixed-linkage glucan and xyloglucan. Polymer, 2017, 124, 1-11.	1.8	23
167	Extracellular depolymerisation triggers fermentation of tamarind xyloglucan and wheat arabinoxylan by a porcine faecal inoculum. Carbohydrate Polymers, 2018, 201, 575-582.	5.1	23
168	Cell wall architecture as well as chemical composition determines fermentation of wheat cell walls by a faecal inoculum. Food Hydrocolloids, 2020, 107, 105858.	5.6	23
169	Slowing the deterioration of mango fruit during cold storage by pre-storage application of oxalic acid. Journal of Horticultural Science and Biotechnology, 2007, 82, 707-714.	0.9	22
170	Sequence diversity and differential expression of major phenylpropanoid-flavonoid biosynthetic genes among three mango varieties. BMC Genomics, 2015, 16, 561.	1.2	22
171	Microstructural properties of potato chips. Food Structure, 2018, 16, 17-26.	2.3	22
172	Probing adhesion between nanoscale cellulose fibres using AFM lateral force spectroscopy: The effect of hemicelluloses on hydrogen bonding. Carbohydrate Polymers, 2019, 208, 97-107.	5.1	22
173	Chromatographic analysis of diverse fruit components using HPLC and UPLC. Analytical Methods, 2010, 2, 1606.	1.3	21
174	Microbial biotransformation of polyphenols during in vitro colonic fermentation of masticated mango and banana. Food Chemistry, 2016, 207, 214-222.	4.2	21
175	Microstructure and mechanical properties of arabinoxylan and (1,3;1,4)-Î²-glucan gels produced by cryo-gelation. Carbohydrate Polymers, 2016, 151, 862-870.	5.1	21
176	Cereal dietary fibres influence retention time of digesta solid and liquid phases along the gastrointestinal tract. Food Hydrocolloids, 2020, 104, 105739.	5.6	21
177	Starch granular protein of high-amylose wheat gives innate resistance to amylolysis. Food Chemistry, 2020, 330, 127328.	4.2	20
178	Independent fermentation and metabolism of dietary polyphenols associated with a plant cell wall model. Food and Function, 2020, 11, 2218-2230.	2.1	20
179	In Vitro Digestion of Apple Tissue Using a Dynamic Stomach Model: Grinding and Crushing Effects on Polyphenol Bioaccessibility. Journal of Agricultural and Food Chemistry, 2020, 68, 574-583.	2.4	19
180	Depletion and bridging flocculation of oil droplets in the presence of Î²-glucan, arabinoxylan and pectin polymers: Effects on lipolysis. Carbohydrate Polymers, 2021, 255, 117491.	5.1	19

#	Article	IF	Citations
181	Nutritional, antiâ€nutritional, antioxidant, physicochemical and functional characterization of Australian acacia seed: effect of species and regions. Journal of the Science of Food and Agriculture, 2021, 101, 4681-4690.	1.7	19
182	Composition and structure of tuber cell walls affect in vitro digestibility of potato (Solanum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702 T	2.1	18
183	Influence of hydration and starch digestion on the transient rheology of an aqueous suspension of comminuted potato snack food. Food and Function, 2014, 5, 2775-2782.	2.1	17
184	Dietary pectin and mango pulp effects on small intestinal enzyme activity levels and macronutrient digestion in grower pigs. Food and Function, 2018, 9, 991-999.	2.1	17
185	Barley Î²-glucan effects on emulsification and in vitro lipolysis of canola oil are modulated by molecular size, mixing method, and emulsifier type. Food Hydrocolloids, 2020, 103, 105643.	5.6	16
186	Application of labelled magnitude satiety scale in a linguistically-diverse population. Food Quality and Preference, 2008, 19, 574-578.	2.3	15
187	Regrinding large particles from milled grains improves growth performance of pigs. Animal Feed Science and Technology, 2017, 233, 53-63.	1.1	15
188	Purified plant cell walls with adsorbed polyphenols alter porcine faecal bacterial communities during <i>in vitro</i> fermentation. Food and Function, 2020, 11, 834-845.	2.1	15
189	Molecular-structure evolution during in vitro fermentation of granular high-amylose wheat starch is different to in vitro digestion. Food Chemistry, 2021, 362, 130188.	4.2	15
190	<i>In vitro</i>fermentation outcomes of arabinoxylan and galactoxyloglucan depend on fecal inoculum more than substrate chemistry. Food and Function, 2020, 11, 7892-7904.	2.1	15
191	In vitro fermentation of legume cells and components: Effects of cell encapsulation and starch/protein interactions. Food Hydrocolloids, 2021, 113, 106538.	5.6	14
192	Kinetics of starch digestion in sweetpotato flours from Papua New Guinean and Australian cultivars. Carbohydrate Polymers, 2012, 87, 461-470.	5.1	13
193	Partial replacement of meat by sugar cane fibre: cooking characteristics, sensory properties of beef burgers and <i>inÂvitro</i> fermentation of sugar cane fibre. International Journal of Food Science and Technology, 2019, 54, 1760-1768.	1.3	13
194	Effect of processing on the solubility and molecular size of oat Î²-glucan and consequences for starch digestibility of oat-fortified noodles. Food Chemistry, 2022, 372, 131291.	4.2	13
195	Accounting for the effect of degree of milling on rice protein extraction in an industrial setting. Food Chemistry, 2018, 253, 221-226.	4.2	12
196	Apparent amylase diffusion rates in milled cereal grains determined in vitro: potential relevance to digestion in the small intestine of pigs. Journal of Cereal Science, 2018, 82, 42-48.	1.8	12
197	In vitro fermentation of onion cell walls and model polysaccharides using human faecal inoculum: Effects of molecular interactions and cell wall architecture. Food Hydrocolloids, 2022, 124, 107257.	5.6	12
198	Effects of cereal soluble dietary fibres on hydrolysis of p-nitrophenyl laurate by pancreatin. Food and Function, 2016, 7, 3382-3389.	2.1	11

#	Article	IF	Citations
199	Cellular barriers in apple tissue regulate polyphenol release under different food processing and <i>in vitro</i> digestion conditions. Food and Function, 2019, 10, 3008-3017.	2.1	11
200	Visualization of microbe-dietary remnant interactions in digesta from pigs, by fluorescence in situ hybridization and staining methods; effects of a dietary arabinoxylan-rich wheat fraction. Food Hydrocolloids, 2016, 52, 952-962.	5.6	10
201	Male grower pigs fed cereal soluble dietary fibres display biphasic glucose response and delayed glycaemic response after an oral glucose tolerance test. PLoS ONE, 2018, 13, e0193137.	1.1	10
202	Wheat cell walls and constituent polysaccharides induce similar microbiota profiles upon<i>in vitro</i>fermentation despite different short chain fatty acid end-product levels. Food and Function, 2021, 12, 1135-1146.	2.1	10
203	Wheat-based food form has a greater effect than amylose content on fermentation outcomes and microbial community shifts in an in vitro fermentation model. Food Hydrocolloids, 2021, 114, 106560.	5.6	10
204	Exploring relationships between satiation, perceived satiety and plantâ€based snack food features. International Journal of Food Science and Technology, 2021, 56, 5340-5351.	1.3	9
205	Isolated pectin (apple) and fruit pulp (mango) impact gastric emptying, passage rate and short chain fatty acid (SCFA) production differently along the pig gastrointestinal tract. Food Hydrocolloids, 2021, 118, 106723.	5.6	9
206	Absolute abundance values reveal microbial shifts and co-occurrence patterns during gut microbiota fermentation of dietary fibres in vitro. Food Hydrocolloids, 2022, 127, 107422.	5.6	9
207	Amorphous packing of amylose and elongated branches linked to the enzymatic resistance of high-amylose wheat starch granules. Carbohydrate Polymers, 2022, 295, 119871.	5.1	9
208	Effect of surfactant treatment on swelling behaviour of normal and waxy cereal starches. Carbohydrate Polymers, 2015, 125, 265-271.	5.1	8
209	Pectin and mango pulp both reduce plasma cholesterol in pigs but have different effects on triglycerides and bile acids. Food Hydrocolloids, 2021, 112, 106369.	5.6	8
210	Interaction of cellulose and xyloglucan influences in vitro fermentation outcomes. Carbohydrate Polymers, 2021, 258, 117698.	5.1	8
211	Wheat bran and oat hulls have dose-dependent effects on ad-libitum feed intake in pigs related to digesta hydration and colonic fermentation. Food and Function, 2019, 10, 8298-8308.	2.1	7
212	Rheological characterisation of cell walls from wheat flour and endosperm: Effects of diferulate crosslink hydrolysis. Food Hydrocolloids, 2019, 88, 265-271.	5.6	7
213	Functional Genomic Validation of the Roles of Soluble Starch Synthase IIa in Japonica Rice Endosperm. Frontiers in Genetics, 2020, 11, 289.	1.1	7
214	Towards personalised saliva spectral fingerprints: Comparison of mid infrared spectra of dried and whole saliva samples. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 253, 119569.	2.0	7
215	Fermentation outcomes of wheat cell wall related polysaccharides are driven by substrate effects as well as initial faecal inoculum. Food Hydrocolloids, 2021, 120, 106978.	5.6	7
216	Pasting properties of high-amylose wheat in conventional and high-temperature Rapid Visco Analyzer: Molecular contribution of starch and gluten proteins. Food Hydrocolloids, 2022, 131, 107840.	5.6	7

#	Article	IF	Citations
217	Interactions of arabinogalactans with bacterial cellulose during its synthesis: Structure and physical properties. Food Hydrocolloids, 2019, 96, 644-652.	5.6	6
218	Interplay between grain digestion and fibre in relation to gastro-small-intestinal passage rate and feed intake in pigs. European Journal of Nutrition, 2021, 60, 4001-4017.	1.8	6
219	Exploring the relationships between oral sensory physiology and oral processing with mid infrared spectra of saliva. Food Hydrocolloids, 2021, 120, 106896.	5.6	6
220	A preliminary study on the utilisation of near infrared spectroscopy to predict age and in vivo human metabolism. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 265, 120312.	2.0	6
221	Opportunities and Challenges in Processing of By-product of Rice Milling Protein as a Food Ingredient. Cereal Chemistry, 2017, 94, 369-376.	1.1	5
222	<i>In vitro</i> fermentation profiles of undigested fractions from legume and nut particles are affected by particle cohesion and entrapped macronutrients. Food and Function, 2022, 13, 5075-5088.	2.1	5
223	Integrating Effects of Human Physiology, Psychology, and Individual Variations on Satietyâ€"An Exploratory Study. Frontiers in Nutrition, 2022, 9, 872169.	1.6	5
224	Give peas a chance. Nature Food, 2020, 1, 663-664.	6.2	3
225	Intrinsic grain starch digestibility affects the concentration of faecal markers of colonic fermentation and bodyweight gain without affecting feed intake in pigs. Animal Feed Science and Technology, 2020, 268, 114599.	1.1	3
226	Multiple length scale structure-property relationships of wheat starch oxidized by sodium hypochlorite or hydrogen peroxide. Carbohydrate Polymer Technologies and Applications, 2021, 2, 100147.	1.6	3
227	Predicting Satiety from the Analysis of Human Saliva Using Mid-Infrared Spectroscopy Combined with Chemometrics. Foods, 2022, 11, 711.	1.9	3
228	Shedding light on human tissue (in vivo) to predict satiation, satiety, and food intake using near infrared reflectance spectroscopy: A preliminary study. Innovative Food Science and Emerging Technologies, 2022, 78, 103033.	2.7	3
229	Microbial enzymatic degradation of tamarind galactoxyloglucan and wheat arabinoxylan by a porcine faecal inoculum. Bioactive Carbohydrates and Dietary Fibre, 2019, 18, 100183.	1.5	2
230	Formation of Cellulose-Based Composites with Hemicelluloses and Pectins Using Komagataeibacter Fermentation. Methods in Molecular Biology, 2020, 2149, 73-87.	0.4	2
231	Starch structure and exchangeable protons contribute to reduced aging of high-amylose wheat bread. Food Chemistry, 2022, 385, 132673.	4.2	2
232	Modelling of Thermal Sterilisation of High-Moisture Snack Foods: Feasibility Analysis and Optimization. Food and Bioprocess Technology, 2018, 11, 979-990.	2.6	1
233	Protection of Î±-amylase from proteolysis by adsorption to feed components in vitro and in the porcine small intestine. Animal Production Science, 2018, 58, 640.	0.6	1
234	Metabolism of Black Carrot Polyphenols during In Vitro Fermentation Is Not Affected by Cellulose or Cell Wall Association. Foods, 2020, 9, 1911.	1.9	1

#	Article	IF	Citations
235	Soluble fibre concentration effects during in vitro fermentation: Higher concentration leads to increased butyrate proportion. Food Hydrocolloids, 2022, 130, 107728.	5.6	1
236	Lessons for animal nutrition and production science from the Australian Academy of Science Decadal Plan for the Science of Nutrition. Animal Production Science, 2021, , .	0.6	0