Michael Gidley

List of Publications by Citations

231 papers	13,307 citations	64 h-index	106 g-index
238 ext. papers	15,467 ext. citations	7.3 avg, IF	7 L-index

#	Paper	IF	Citations
231	Loss of crystalline and molecular order during starch gelatinisation: origin of the enthalpic transition. *Carbohydrate Research*, **1992**, 227, 103-112	2.9	935
230	A novel approach for calculating starch crystallinity and its correlation with double helix content: a combined XRD and NMR study. *Biopolymers*, **2008**, 89, 761-8	2.2	434
229	Heterogeneity in the chemistry, structure and function of plant cell walls. *Nature Chemical Biology*, **2010**, 6, 724-32	11.7	398
228	Infrared spectroscopy as a tool to characterise starch ordered structure--a joint FTIR-ATR, NMR, XRD and DSC study. *Carbohydrate Polymers*, **2016**, 139, 35-42	10.3	294
227	A method for estimating the nature and relative proportions of amorphous, single, and double-helical components in starch granules by (13)C CP/MAS NMR. *Biomacromolecules*, **2007**, 8, 885-91	6.9	260
226	Three classes of starch granule swelling: Influence of surface proteins and lipids. *Carbohydrate Polymers*, **2006**, 64, 452-465	10.3	251
225	Characterization of starch by size-exclusion chromatography: the limitations imposed by shear scission. *Biomacromolecules*, **2009**, 10, 2245-53	6.9	243
224	Relationship between granule size and in vitro digestibility of maize and potato starches. *Carbohydrate Polymers*, **2010**, 82, 480-488	10.3	213
223	Mechanisms of starch digestion by □amylase-Structural basis for kinetic properties. *Critical Reviews in Food Science and Nutrition*, **2017**, 57, 875-892	11.5	210
222	In vitro assembly of cellulose/xyloglucan networks: ultrastructural and molecular aspects. *Plant Journal*, **1995**, 8, 491-504	6.9	193
221	Rheological studies of aqueous amylose gels: the effect of chain length and concentration on gel modulus. *Macromolecules*, **1989**, 22, 346-351	5.5	193
220	Structure and solution properties of tamarind-seed polysaccharide. *Carbohydrate Research*, **1991**, 214, 299-314	2.9	183
219	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	3.8	181
218	Influence of different carbon sources on bacterial cellulose production by Gluconacetobacter xylinus strain ATCC 53524. *Journal of Applied Microbiology*, **2009**, 107, 576-83	4.7	179
217	Re-evaluation of the mechanisms of dietary fibre and implications for macronutrient bioaccessibility, digestion and postprandial metabolism. *British Journal of Nutrition*, **2016**, 116, 816-33	3.6	179
216	Roles of cellulose and xyloglucan in determining the mechanical properties of primary plant cell walls. *Plant Physiology*, **1999**, 121, 657-64	6.6	176
215	Molecular rearrangement of starch during in vitro digestion: toward a better understanding of enzyme resistant starch formation in processed starches. *Biomacromolecules*, **2008**, 9, 1951-8	6.9	173

214	Mechanical properties of primary plant cell wall analogues. *Planta*, **2002**, 215, 989-96	4.7	173
213	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, 4927-41	7	164
212	Structural aspects of the interaction of mannan-based polysaccharides with bacterial cellulose. *Carbohydrate Research*, **1998**, 307, 299-309	2.9	158
211	Why do gelatinized starch granules not dissolve completely? Roles for amylose, protein, and lipid in granule "ghost" integrity. *Journal of Agricultural and Food Chemistry*, **2007**, 55, 4752-60	5.7	150
210	Probing expansin action using cellulose/hemicellulose composites. *Plant Journal*, **2000**, 22, 327-34	6.9	140
209	Inhibition of α-amylase activity by cellulose: Kinetic analysis and nutritional implications. *Carbohydrate Polymers*, **2015**, 123, 305-12	10.3	137
208	Intactness of cell wall structure controls the in vitro digestion of starch in legumes. *Food and Function*, **2016**, 7, 1367-79	6.1	135
207	In vitro synthesis and properties of pectin/Acetobacter xylinus cellulose composites. *Plant Journal*, **1999**, 20, 25-35	6.9	134
206	Combined techniques for characterising pasta structure reveals how the gluten network slows enzymic digestion rate. *Food Chemistry*, **2015**, 188, 559-68	8.5	125
205	Complexity and health functionality of plant cell wall fibers from fruits and vegetables. *Critical Reviews in Food Science and Nutrition*, **2017**, 57, 59-81	11.5	121
204	Synergistic and antagonistic effects of αAmylase and amyloglucosidase on starch digestion. *Biomacromolecules*, **2013**, 14, 1945-54	6.9	119
203	Hydrocolloids in the digestive tract and related health implications. *Current Opinion in Colloid and Interface Science*, **2013**, 18, 371-378	7.6	112
202	In vivo and in vitro starch digestion: are current in vitro techniques adequate?. *Biomacromolecules*, **2010**, 11, 3600-8	6.9	110
201	Action of a pure xyloglucan endo-transglycosylase (formerly called xyloglucan-specific endo-(1-4)-β-d-glucanase) from the cotyledons of germinated nasturtium seeds. *Plant Journal*, **1993**, 3, 691-700	6.9	107
200	Physicochemical and structural properties of maize and potato starches as a function of granule size. *Journal of Agricultural and Food Chemistry*, **2011**, 59, 10151-61	5.7	101
199	Mechanical effects of plant cell wall enzymes on cellulose/xyloglucan composites. *Plant Journal*, **2004**, 38, 27-37	6.9	100
198	High-Amylose Starches to Bridge the "Fiber Gap": Development, Structure, and Nutritional Functionality. *Comprehensive Reviews in Food Science and Food Safety*, **2019**, 18, 362-379	16.4	99
197	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, 9883-90	5.7	99

196	Gut Fermentation of Dietary Fibres: Physico-Chemistry of Plant Cell Walls and Implications for Health. *International Journal of Molecular Sciences*, **2017**, 18,	6.3	97
195	Interactions between polyphenols in thinned young apples and porcine pancreatic □amylase: Inhibition, detailed kinetics and fluorescence quenching. *Food Chemistry*, **2016**, 208, 51-60	8.5	96
194	Densely packed matrices as rate determining features in starch hydrolysis. *Trends in Food Science and Technology*, **2015**, 43, 18-31	15.3	94
193	Molecular, mesoscopic and microscopic structure evolution during amylase digestion of maize starch granules. *Carbohydrate Polymers*, **2012**, 90, 23-33	10.3	94
192	Binding of polyphenols to plant cell wall analogues - Part 2: Phenolic acids. *Food Chemistry*, **2012**, 135, 2287-92	8.5	94
191	Effects of starch synthase IIa gene dosage on grain, protein and starch in endosperm of wheat. *Theoretical and Applied Genetics*, **2007**, 115, 1053-65	6	94
190	Binding of dietary polyphenols to cellulose: structural and nutritional aspects. *Food Chemistry*, **2015** , 171, 388-96	8.5	92
189	A Rapid In-vitro Digestibility Assay Based on Glucometry for Investigating Kinetics of Starch Digestion. *Starch/Staerke*, **2009**, 61, 245-255	2.3	91
188	Effect of cryo-milling on starches: Functionality and digestibility. *Food Hydrocolloids*, **2010**, 24, 152-163	10.6	90
187	Mechanism for starch granule ghost formation deduced from structural and enzyme digestion properties. *Journal of Agricultural and Food Chemistry*, **2014**, 62, 760-71	5.7	87
186	3 or 3?-Galloyl substitution plays an important role in association of catechins and theaflavins with porcine pancreatic □amylase: The kinetics of inhibition of □amylase by tea polyphenols. *Journal of Functional Foods*, **2016**, 26, 144-156	5.1	84
185	The interplay of □amylase and amyloglucosidase activities on the digestion of starch in in vitro enzymic systems. *Carbohydrate Polymers*, **2015**, 117, 192-200	10.3	82
184	Freeze-drying changes the structure and digestibility of B-polymorphic starches. *Journal of Agricultural and Food Chemistry*, **2014**, 62, 1482-91	5.7	82
183	Digestion of isolated legume cells in a stomach-duodenum model: three mechanisms limit starch and protein hydrolysis. *Food and Function*, **2017**, 8, 2573-2582	6.1	81
182	Mechanical and structural properties of native and alkali-treated bacterial cellulose produced by Gluconacetobacter xylinus strain ATCC 53524. *Cellulose*, **2009**, 16, 1047-1055	5.5	81
181	Effects of structural variation in xyloglucan polymers on interactions with bacterial cellulose. *American Journal of Botany*, **2006**, 93, 1402-14	2.7	80
180	Structure of Acetobacter cellulose composites in the hydrated state. *International Journal of Biological Macromolecules*, **2001**, 29, 193-202	7.9	80
179	Rice starch granule amylolysis--differentiating effects of particle size, morphology, thermal properties and crystalline polymorph. *Carbohydrate Polymers*, **2015**, 115, 305-16	10.3	76

178	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, 906-16	6.1	76
177	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, 9847-54	5.7	75
176	Enzyme resistance and structural organization in extruded high amylose maize starch. *Carbohydrate Polymers*, **2010**, 80, 699-710	10.3	73
175	The adsorption of □amylase on barley proteins affects the in vitro digestion of starch in barley flour. *Food Chemistry*, **2018**, 241, 493-501	8.5	72
174	Food Starch Structure Impacts Gut Microbiome Composition. *MSphere*, **2018**, 3,	5	72
173	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, 120-34	10.3	70
172	Characterisation of sweetpotato from Papua New Guinea and Australia: Physicochemical, pasting and gelatinisation properties. *Food Chemistry*, **2011**, 126, 1759-70	8.5	70
171	Tensile deformation of bacterial cellulose composites. *International Journal of Biological Macromolecules*, **2003**, 32, 28-35	7.9	70
170	Binding selectivity of dietary polyphenols to different plant cell wall components: Quantification and mechanism. *Food Chemistry*, **2017**, 233, 216-227	8.5	66
169	Natural products for glycaemic control: Polyphenols as inhibitors of alpha-amylase. *Trends in Food Science and Technology*, **2019**, 91, 262-273	15.3	64
168	Relationships between protein content, starch molecular structure and grain size in barley. *Carbohydrate Polymers*, **2017**, 155, 271-279	10.3	64
167	Unique aspects of the structure and dynamics of elementary I□cellulose microfibrils revealed by computational simulations. *Plant Physiology*, **2015**, 168, 3-17	6.6	63
166	Interactions among macronutrients in wheat flour determine their enzymic susceptibility. *Food Hydrocolloids*, **2016**, 61, 415-425	10.6	62
165	Dietary fibre for glycaemia control: Towards a mechanistic understanding. *Bioactive Carbohydrates and Dietary Fibre*, **2018**, 14, 39-53	3.4	61
164	Starch digestion mechanistic information from the time evolution of molecular size distributions. *Journal of Agricultural and Food Chemistry*, **2010**, 58, 8444-52	5.7	60
163	Rehydration of high-protein-containing dairy powder: Slow- and fast-dissolving components and storage effects. *Dairy Science and Technology*, **2010**, 90, 335-344		58
162	"Dietary fibre": moving beyond the "soluble/insoluble" classification for monogastric nutrition, with an emphasis on humans and pigs. *Journal of Animal Science and Biotechnology*, **2019**, 10, 45	6	57
161	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 □glucan. *FASEB Journal*, **2016**, 30, 4227-4238	0.9	57

160	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, 12111-22	5.7	56
159	Differential effects of genetically distinct mechanisms of elevating amylose on barley starch characteristics. *Carbohydrate Polymers*, **2012**, 89, 979-91	10.3	56
158	Diffusion and viscosity in arabinoxylan solutions: Implications for nutrition. *Carbohydrate Polymers*, **2010**, 82, 46-53	10.3	56
157	Functional categorisation of dietary fibre in foods: Beyond 'soluble' vs 'insoluble'. *Trends in Food Science and Technology*, **2019**, 86, 563-568	15.3	56
156	In vitro fermentation of bacterial cellulose composites as model dietary fibers. *Journal of Agricultural and Food Chemistry*, **2011**, 59, 4025-32	5.7	55
155	Altering starch branching enzymes in wheat generates high-amylose starch with novel molecular structure and functional properties. *Food Hydrocolloids*, **2019**, 92, 51-59	10.6	53
154	Interactions of pectins with cellulose during its synthesis in the absence of calcium. *Food Hydrocolloids*, **2016**, 52, 57-68	10.6	53
153	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, 841-8	10.3	53
152	The mechanism of interactions between tea polyphenols and porcine pancreatic alpha-amylase: Analysis by inhibition kinetics, fluorescence quenching, differential scanning calorimetry and isothermal titration calorimetry. *Molecular Nutrition and Food Research*, **2017**, 61, 1700324	5.9	52
151	Evidence for differential interaction mechanism of plant cell wall matrix polysaccharides in hierarchically-structured bacterial cellulose. *Cellulose*, **2015**, 22, 1541-1563	5.5	52
150	Mechanical properties of bacterial cellulose synthesised by diverse strains of the genus Komagataeibacter. *Food Hydrocolloids*, **2018**, 81, 87-95	10.6	52
149	Enzymatic hydrolysis of starch in the presence of cereal soluble fibre polysaccharides. *Food and Function*, **2014**, 5, 579-86	6.1	52
148	Cryo-milling of starch granules leads to differential effects on molecular size and conformation. *Carbohydrate Polymers*, **2011**, 84, 1133-1140	10.3	52
147	Compact structure and proteins of pasta retard in vitro digestive evolution of branched starch molecular structure. *Carbohydrate Polymers*, **2016**, 152, 441-449	10.3	51
146	Interactions of arabinoxylan and (1,3)(1,4)-β-glucan with cellulose networks. *Biomacromolecules*, **2015**, 16, 1232-9	6.9	50
145	Mobility-resolved 13C-NMR spectroscopy of primary plant cell walls **1996**, 39, 51		49
144	Intact cellular structure in cereal endosperm limits starch digestion in vitro. *Food Hydrocolloids*, **2018**, 81, 139-148	10.6	46
143	In vitro fermentation kinetics and end-products of cereal arabinoxylans and (1,3;1,4)-β-glucans by porcine faeces. *Journal of Cereal Science*, **2011**, 53, 53-58	3.8	46

142	Granule residues and 'ghosts' remaining after heating A-type barley-starch granules in water. *Carbohydrate Research*, **1992**, 227, 121-130	2.9	46
141	Mucin gel assembly is controlled by a collective action of non-mucin proteins, disulfide bridges, Ca-mediated links, and hydrogen bonding. *Scientific Reports*, **2018**, 8, 5802	4.9	45
140	Micromechanics and poroelasticity of hydrated cellulose networks. *Biomacromolecules*, **2014**, 15, 2274-84	6.9	45
139	Structure of cellulose microfibrils in mature cotton fibres. *Carbohydrate Polymers*, **2017**, 175, 450-463	10.3	44
138	Extrusion induced low-order starch matrices: Enzymic hydrolysis and structure. *Carbohydrate Polymers*, **2015**, 134, 485-96	10.3	43
137	Wood hemicelluloses exert distinct biomechanical contributions to cellulose fibrillar networks. *Nature Communications*, **2020**, 11, 4692	17.4	43
136	Location and interactions of starches in planta: Effects on food and nutritional functionality. *Trends in Food Science and Technology*, **2019**, 93, 158-166	15.3	42
135	Hierarchical architecture of bacterial cellulose and composite plant cell wall polysaccharide hydrogels using small angle neutron scattering. *Soft Matter*, **2016**, 12, 1534-49	3.6	42
134	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	3	42
133	In vitro digestion of pectin- and mango-enriched diets using a dynamic rat stomach-duodenum model. *Journal of Food Engineering*, **2017**, 202, 65-78	6	41
132	Amylase binding to starch granules under hydrolysing and non-hydrolysing conditions. *Carbohydrate Polymers*, **2014**, 113, 97-107	10.3	41
131	Quantitative structural organisation model for wheat endosperm cell walls: Cellulose as an important constituent. *Carbohydrate Polymers*, **2018**, 196, 199-208	10.3	41
130	Gaining insight into cell wall cellulose macrofibril organisation by simulating microfibril adsorption. *Cellulose*, **2015**, 22, 3501-3520	5.5	39
129	Characteristics of starch-based films with different amylose contents plasticised by 1-ethyl-3-methylimidazolium acetate. *Carbohydrate Polymers*, **2015**, 122, 160-8	10.3	39
128	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, 642-51	5.9	38
127	Adsorption behaviour of polyphenols on cellulose is affected by processing history. *Food Hydrocolloids*, **2017**, 63, 496-507	10.6	38
126	Poroelastic mechanical effects of hemicelluloses on cellulosic hydrogels under compression. *PLoS ONE*, **2015**, 10, e0122132	3.7	38
125	Diffusion and rheology characteristics of barley mixed linkage β-glucan and possible implications for digestion. *Carbohydrate Polymers*, **2011**, 86, 1732-1738	10.3	37

124	Cellulose-pectin composite hydrogels: Intermolecular interactions and material properties depend on order of assembly. *Carbohydrate Polymers*, **2017**, 162, 71-81	10.3	36
123	Multi-scale model for the hierarchical architecture of native cellulose hydrogels. *Carbohydrate Polymers*, **2016**, 147, 542-555	10.3	36
122	Hydrogen bonds and twist in cellulose microfibrils. *Carbohydrate Polymers*, **2017**, 175, 433-439	10.3	35
121	High-resolution solid-state NMR of food materials. *Trends in Food Science and Technology*, **1992**, 3, 231-236	15.3	35
120	Binding of arabinan or galactan during cellulose synthesis is extensive and reversible. *Carbohydrate Polymers*, **2015**, 126, 108-21	10.3	34
119	Tribology of swollen starch granule suspensions from maize and potato. *Carbohydrate Polymers*, **2017**, 155, 128-135	10.3	34
118	Mastication effects on carotenoid bioaccessibility from mango fruit tissue. *Food Research International*, **2015**, 67, 238-246	7	33
117	Tea polyphenols enhance binding of porcine pancreatic α-amylase with starch granules but reduce catalytic activity. *Food Chemistry*, **2018**, 258, 164-173	8.5	33
116	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, 1274-82	3.6	33
115	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	3.8	33
114	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	6	32
113	Rheological and microstructural properties of porcine gastric digesta and diets containing pectin or mango powder. *Carbohydrate Polymers*, **2016**, 148, 216-26	10.3	32
112	Wall porosity in isolated cells from food plants: Implications for nutritional functionality. *Food Chemistry*, **2019**, 279, 416-425	8.5	32
111	Major Australian tropical fruits biodiversity: bioactive compounds and their bioactivities. *Molecular Nutrition and Food Research*, **2012**, 56, 357-87	5.9	30
110	A more general approach to fitting digestion kinetics of starch in food. *Carbohydrate Polymers*, **2019**, 225, 115244	10.3	29
109	Diffusion of macromolecules in self-assembled cellulose/hemicellulose hydrogels. *Soft Matter*, **2015**, 11, 4002-10	3.6	29
108	Molecular, mesoscopic and microscopic structure evolution during amylase digestion of extruded maize and high amylose maize starches. *Carbohydrate Polymers*, **2015**, 118, 224-34	10.3	29
107	Polyphenol–cellulose interactions: effects of pH, temperature and salt. *International Journal of Food Science and Technology*, **2016**, 51, 203-211	3.8	29

106	Mechanism of binding interactions between young apple polyphenols and porcine pancreatic □amylase. *Food Chemistry*, **2019**, 283, 468-474	8.5	28
105	Mapping nano-scale mechanical heterogeneity of primary plant cell walls. *Journal of Experimental Botany*, **2016**, 67, 2799-816	7	28
104	Molecular interactions of a model bile salt and porcine bile with (1,3:1,4)-□glucans and arabinoxylans probed by (13)C NMR and SAXS. *Food Chemistry*, **2016**, 197, 676-85	8.5	28
103	Characterisation of soluble and insoluble cell wall fractions from rye, wheat and hull-less barley endosperm flours. *Food Hydrocolloids*, **2014**, 41, 219-226	10.6	28
102	Formation of cellulose-based composites with hemicelluloses and pectins using Gluconacetobacter fermentation. *Methods in Molecular Biology*, **2011**, 715, 197-208	1.4	28
101	Soluble polysaccharides reduce binding and inhibitory activity of tea polyphenols against porcine pancreatic □amylase. *Food Hydrocolloids*, **2018**, 79, 63-70	10.6	28
100	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	10.6	28
99	Rheology and microstructure characterisation of small intestinal digesta from pigs fed a red meat-containing Western-style diet. *Food Hydrocolloids*, **2015**, 44, 300-308	10.6	27
98	Mammalian mucosal □glucosidases coordinate with □amylase in the initial starch hydrolysis stage to have a role in starch digestion beyond glucogenesis. *PLoS ONE*, **2013**, 8, e62546	3.7	27
97	The role of thermostable proteinaceous □amylase inhibitors in slowing starch digestion in pasta. *Food Hydrocolloids*, **2019**, 90, 241-247	10.6	27
96	High-amylose wheat starch: Structural basis for water absorption and pasting properties. *Carbohydrate Polymers*, **2020**, 245, 116557	10.3	26
95	Pectin impacts cellulose fibre architecture and hydrogel mechanics in the absence of calcium. *Carbohydrate Polymers*, **2016**, 153, 236-245	10.3	26
94	Molecular brewing: Molecular structural effects involved in barley malting and mashing. *Carbohydrate Polymers*, **2019**, 206, 583-592	10.3	26
93	Micromechanical model of biphasic biomaterials with internal adhesion: Application to nanocellulose hydrogel composites. *Acta Biomaterialia*, **2016**, 29, 149-160	10.8	25
92	Kinetic analysis of bile salt passage across a dialysis membrane in the presence of cereal soluble dietary fibre polymers. *Food Chemistry*, **2012**, 134, 2007-13	8.5	25
91	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	3.9	24
90	Cell wall biomechanics: a tractable challenge in manipulating plant cell walls 'fit for purpose'!. *Current Opinion in Biotechnology*, **2018**, 49, 163-171	11.4	23
89	Soluble arabinoxylan enhances large intestinal microbial health biomarkers in pigs fed a red meat-containing diet. *Nutrition*, **2016**, 32, 491-7	4.8	23

88	Adsorption isotherm studies on the interaction between polyphenols and apple cell walls: Effects of variety, heating and drying. *Food Chemistry*, **2019**, 282, 58-66	8.5	23
87	Kinetics of enthalpy relaxation of milk protein concentrate powder upon ageing and its effect on solubility. *Food Chemistry*, **2012**, 134, 1368-73	8.5	22
86	Structural properties and digestion of green banana flour as a functional ingredient in pasta. *Food and Function*, **2016**, 7, 771-80	6.1	21
85	Heterogeneity in maize starch granule internal architecture deduced from diffusion of fluorescent dextran probes. *Carbohydrate Polymers*, **2013**, 93, 365-73	10.3	21
84	Protein-starch matrix plays a key role in enzymic digestion of high-amylose wheat noodle. *Food Chemistry*, **2021**, 336, 127719	8.5	21
83	Starch branching enzymes contributing to amylose and amylopectin fine structure in wheat. *Carbohydrate Polymers*, **2019**, 224, 115185	10.3	20
82	Soluble arabinoxylan alters digesta flow and protein digestion of red meat-containing diets in pigs. *Nutrition*, **2015**, 31, 1141-7	4.8	20
81	Dietary polyphenols bind to potato cells and cellular components. *Journal of Functional Foods*, **2017**, 37, 283-292	5.1	20
80	High amylose wheat starch structures display unique fermentability characteristics, microbial community shifts and enzyme degradation profiles. *Food and Function*, **2020**, 11, 5635-5646	6.1	19
79	Chromatographic analysis of diverse fruit components using HPLC and UPLC. *Analytical Methods*, **2010**, 2, 1606	3.2	19
78	Extracellular depolymerisation triggers fermentation of tamarind xyloglucan and wheat arabinoxylan by a porcine faecal inoculum. *Carbohydrate Polymers*, **2018**, 201, 575-582	10.3	19
77	Isolation of wheat endosperm cell walls: Effects of non-endosperm flour components on structural analyses. *Journal of Cereal Science*, **2017**, 74, 165-173	3.8	18
76	Review: Effects of fibre, grain starch digestion rate and the ileal brake on voluntary feed intake in pigs. *Animal*, **2019**, 13, 2745-2754	3.1	18
75	Mechanisms of utilisation of arabinoxylans by a porcine faecal inoculum: competition and co-operation. *Scientific Reports*, **2018**, 8, 4546	4.9	18
74	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	3.9	18
73	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	4.9	18
72	Addition of arabinoxylan and mixed linkage glucans in porcine diets affects the large intestinal bacterial populations. *European Journal of Nutrition*, **2017**, 56, 2193-2206	5.2	18
71	Characterisation of bacterial cellulose from diverse Komagataeibacter strains and their application to construct plant cell wall analogues. *Cellulose*, **2017**, 24, 1211-1226	5.5	17

70	In vitro fermentation gas kinetics and end-products of soluble and insoluble cereal flour dietary fibres are similar. *Food and Function*, **2018**, 9, 898-905	6.1	17
69	Microstructure and mechanical properties of arabinoxylan and (1,3;1,4)-β-glucan gels produced by cryo-gelation. *Carbohydrate Polymers*, **2016**, 151, 862-870	10.3	17
68	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	10.6	16
67	Viscoelastic properties of pectin/cellulose composites studied by QCM-D and oscillatory shear rheology. *Food Hydrocolloids*, **2018**, 79, 13-19	10.6	16
66	Microbial biotransformation of polyphenols during in vitro colonic fermentation of masticated mango and banana. *Food Chemistry*, **2016**, 207, 214-22	8.5	16
65	Composition and structure of tuber cell walls affect in vitro digestibility of potato (Solanum tuberosum L.). *Food and Function*, **2016**, 7, 4202-4212	6.1	15
64	Sequence diversity and differential expression of major phenylpropanoid-flavonoid biosynthetic genes among three mango varieties. *BMC Genomics*, **2015**, 16, 561	4.5	14
63	A Genome Wide Association Study of arabinoxylan content in 2-row spring barley grain. *PLoS ONE*, **2017**, 12, e0182537	3.7	14
62	Cereal dietary fibres influence retention time of digesta solid and liquid phases along the gastrointestinal tract. *Food Hydrocolloids*, **2020**, 104, 105739	10.6	13
61	Cell wall architecture as well as chemical composition determines fermentation of wheat cell walls by a faecal inoculum. *Food Hydrocolloids*, **2020**, 107, 105858	10.6	13
60	Microstructural properties of potato chips. *Food Structure*, **2018**, 16, 17-26	4.3	13
59	Application of labelled magnitude satiety scale in a linguistically-diverse population. *Food Quality and Preference*, **2008**, 19, 574-578	5.8	13
58	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	1.9	13
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