Bernadine M Flanagan

List of Publications by Year
in descending order

75 papers	4,976 citations	109264 35 h-index	91828 69 g-index
76 all docs	76 docs citations	76 times ranked	4986 citing authors

#	Article	IF	Citations
1	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
2	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
3	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
4	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
5	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
6	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
7	Effects of processing high amylose maize starches under controlled conditions on structural organisation and amylase digestibility. Carbohydrate Polymers, 2009, 75, 236-245.	5.1	190
8	Characterization of Cellulose Production by a Gluconacetobacter xylinus Strain from Kombucha. Current Microbiology, 2008, 57, 449-453.	1.0	126
9	Binding of dietary polyphenols to cellulose: Structural and nutritional aspects. Food Chemistry, 2015, 171, 388-396.	4.2	126
10	Wood hemicelluloses exert distinct biomechanical contributions to cellulose fibrillar networks. Nature Communications, 2020, 11, 4692.	5.8	117
11	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
12	Molecular, mesoscopic and microscopic structure evolution during amylase digestion of maize starch granules. Carbohydrate Polymers, 2012, 90, 23-33.	5.1	114
13	Freeze-Drying Changes the Structure and Digestibility of B-Polymorphic Starches. Journal of Agricultural and Food Chemistry, 2014, 62, 1482-1491.	2.4	113
14	Food Starch Structure Impacts Gut Microbiome Composition. MSphere, 2018, 3, .	1.3	106
15	Structural and enzyme kinetic studies of retrograded starch: Inhibition of Î±-amylase and consequences for intestinal digestion of starch. Carbohydrate Polymers, 2017, 164, 154-161.	5.1	104
16	Binding selectivity of dietary polyphenols to different plant cell wall components: Quantification and mechanism. Food Chemistry, 2017, 233, 216-227.	4.2	97
17	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
18	Structure of cellulose microfibrils in mature cotton fibres. Carbohydrate Polymers, 2017, 175, 450-463.	5.1	74

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19	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
20	Cryo-milling of starch granules leads to differential effects on molecular size and conformation. Carbohydrate Polymers, 2011, 84, 1133-1140.	5.1	68
21	Interactions of Arabinoxylan and (1,3)(1,4)-Î²-Glucan with Cellulose Networks. Biomacromolecules, 2015, 16, 1232-1239.	2.6	63
22	Quantitative structural organisation model for wheat endosperm cell walls: Cellulose as an important constituent. Carbohydrate Polymers, 2018, 196, 199-208.	5.1	61
23	Differential effects of genetically distinct mechanisms of elevating amylose on barley starch characteristics. Carbohydrate Polymers, 2012, 89, 979-991.	5.1	59
24	A Ligand-Field Analysis of the trensal (H3trensal = 2,2â€˜,2â€˜â€‰â€˜-Tris(salicylideneimino)triethylamine) Ligand. An Application of the Angular Overlap Model to Lanthanides. Inorganic Chemistry, 2002, 41, 5024-5033.	1.9	56
25	Extrusion induced low-order starch matrices: Enzymic hydrolysis and structure. Carbohydrate Polymers, 2015, 134, 485-496.	5.1	54
26	Multi-scale model for the hierarchical architecture of native cellulose hydrogels. Carbohydrate Polymers, 2016, 147, 542-555.	5.1	52
27	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
28	In vitro digestibility and physicochemical properties of milled rice. Food Chemistry, 2015, 172, 757-765.	4.2	50
29	Rapid quantification of starch molecular order through multivariate modelling of¹³C CP/MAS NMR spectra. Chemical Communications, 2015, 51, 14856-14858.	2.2	48
30	Poroelastic Mechanical Effects of Hemicelluloses on Cellulosic Hydrogels under Compression. PLoS ONE, 2015, 10, e0122132.	1.1	47
31	Ligand-Field Analysis of an Er(III) Complex with a Heptadentate Tripodal N4O3Ligand. Inorganic Chemistry, 2001, 40, 5401-5407.	1.9	41
32	Rapid Communication: Completion of the Isomorphous Ln(trensal) Series. Australian Journal of Chemistry, 2001, 54, 229.	0.5	41
33	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
34	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
35	Isomorphous Lanthanide Complexes of a Tripodal N4O3 Ligand. Australian Journal of Chemistry, 2000, 53, 229.	0.5	38
36	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

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37	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
38	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
39	Starch structure and nutritional functionality â€" Past revelations and future prospects. Carbohydrate Polymers, 2022, 277, 118837.	5.1	32
40	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
41	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
42	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
43	In vitro fermentation of chewed mango and banana: particle size, starch and vascular fibre effects. Food and Function, 2015, 6, 2464-2474.	2.1	28
44	Mechanisms of utilisation of arabinoxylans by a porcine faecal inoculum: competition and co-operation. Scientific Reports, 2018, 8, 4546.	1.6	25
45	Spontaneous mutation results in lower cellulose production by a Gluconacetobacter xylinus strain from Kombucha. Carbohydrate Polymers, 2010, 80, 337-343.	5.1	23
46	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
47	Extracellular depolymerisation triggers fermentation of tamarind xyloglucan and wheat arabinoxylan by a porcine faecal inoculum. Carbohydrate Polymers, 2018, 201, 575-582.	5.1	23
48	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
49	Bioactivity of Mango Flesh and Peel Extracts on Peroxisome Proliferatorâ€Activated Receptor Î³ [PPARÎ³] Activation and MCFâ€7 Cell Proliferation: Fraction and Fruit Variability. Journal of Food Science, 2011, 76, H11-8.	1.5	21
50	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
51	Metal-centred versus ligand-centred luminescence quenching of a macrocyclic copper(II) complexâ€Šâ€. Journal of the Chemical Society Dalton Transactions, 1999, , 3579-3584.	1.1	20
52	A refined agonist pharmacophore for protease activated receptor 2. Bioorganic and Medicinal Chemistry Letters, 2007, 17, 5552-5557.	1.0	20
53	Characterization of starch phosphorylases inÂbarley grains. Journal of the Science of Food and Agriculture, 2013, 93, 2137-2145.	1.7	19
54	Between fruit variability of the bioactive compounds, Î²â€carotene and mangiferin, in mango (<i><scp>M</scp>angifera indica</i>). Nutrition and Dietetics, 2013, 70, 158-163.	0.9	18

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55	Composition and structure of tuber cell walls affect in vitro digestibility of potato (Solanum) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	2.1	18
56	Fruit and vegetable insoluble dietary fibre in vitro fermentation characteristics depend on cell wall type. Bioactive Carbohydrates and Dietary Fibre, 2020, 23, 100223.	1.5	16
57	An XPS study of an isomorphous trivalent lanthanoid series. Journal of Electron Spectroscopy and Related Phenomena, 2002, 124, 73-77.	0.8	15
58	<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
59	In vitro fermentation of legume cells and components: Effects of cell encapsulation and starch/protein interactions. Food Hydrocolloids, 2021, 113, 106538.	5.6	14
60	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
61	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
62	Characterizing the impact of starch and gluten-induced alterations on gelatinization behavior of physically modified model dough. Food Chemistry, 2019, 301, 125276.	4.2	10
63	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
64	Hepta and octapeptide agonists of protease-activated receptor 2. Journal of Peptide Science, 2007, 13, 856-861.	0.8	9
65	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
66	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
67	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
68	Interaction of cellulose and xyloglucan influences in vitro fermentation outcomes. Carbohydrate Polymers, 2021, 258, 117698.	5.1	8
69	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
70	<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
71	Self-Condensation of a Thiazole-Peptide Bearing a 21-Membered Loop into a Library of Giant Macrocycles with Multiple Orthogonal Loops. Organic Letters, 2006, 8, 1053-1056.	2.4	3
72	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

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73	Structures of peptide agonists for human protease activated receptor 2. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 916-919.	1.0	2
74	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
75	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