Sushil Dhital

List of Publications by Year
in descending order

97 papers	5,525 citations	53660 45 h-index	85405 71 g-index
97 all docs	97 docs citations	97 times ranked	3444 citing authors

#	Article	IF	Citations
1	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
2	Relationship between granule size and in vitro digestibility of maize and potato starches. Carbohydrate Polymers, 2010, 82, 480-488.	5.1	271
3	Intactness of cell wall structure controls the in vitro digestion of starch in legumes. Food and Function, 2016, 7, 1367-1379.	2.1	184
4	Inhibition of Î±-amylase activity by cellulose: Kinetic analysis and nutritional implications. Carbohydrate Polymers, 2015, 123, 305-312.	5.1	182
5	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
6	Synergistic and Antagonistic Effects of Î±-Amylase and Amyloglucosidase on Starch Digestion. Biomacromolecules, 2013, 14, 1945-1954.	2.6	143
7	Milling of rice grains: Effects of starch/flour structures on gelatinization and pasting properties. Carbohydrate Polymers, 2013, 92, 682-690.	5.1	137
8	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
9	Densely packed matrices as rate determining features in starch hydrolysis. Trends in Food Science and Technology, 2015, 43, 18-31.	7.8	125
10	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
11	Effects of grain milling on starch structures and flour/starch properties. Starch/Staerke, 2014, 66, 15-27.	1.1	119
12	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
13	Wood hemicelluloses exert distinct biomechanical contributions to cellulose fibrillar networks. Nature Communications, 2020, 11, 4692.	5.8	117
14	Molecular, mesoscopic and microscopic structure evolution during amylase digestion of maize starch granules. Carbohydrate Polymers, 2012, 90, 23-33.	5.1	114
15	Freeze-Drying Changes the Structure and Digestibility of B-Polymorphic Starches. Journal of Agricultural and Food Chemistry, 2014, 62, 1482-1491.	2.4	113
16	Multilevel Structure of Wheat Starch and Its Relationship to Noodle Eating Qualities. Comprehensive Reviews in Food Science and Food Safety, 2017, 16, 1042-1055.	5.9	112
17	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
18	Effect of cryo-milling on starches: Functionality and digestibility. Food Hydrocolloids, 2010, 24, 152-163.	5.6	107

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19	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
20	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
21	Interactions among macronutrients in wheat flour determine their enzymic susceptibility. Food Hydrocolloids, 2016, 61, 415-425.	5.6	79
22	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
23	Intact cellular structure in cereal endosperm limits starch digestion inÂvitro. Food Hydrocolloids, 2018, 81, 139-148.	5.6	76
24	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
25	Biomolecule-based pickering food emulsions: Intrinsic components of food matrix, recent trends and prospects. Food Hydrocolloids, 2021, 112, 106303.	5.6	75
26	Dietary fiber-gluten protein interaction in wheat flour dough: Analysis, consequences and proposed mechanisms. Food Hydrocolloids, 2021, 111, 106203.	5.6	74
27	Cryo-milling of starch granules leads to differential effects on molecular size and conformation. Carbohydrate Polymers, 2011, 84, 1133-1140.	5.1	68
28	Encapsulation of Lactobacillus plantarum in porous maize starch. LWT - Food Science and Technology, 2016, 74, 542-549.	2.5	67
29	Effects of palm oil on structural and in vitro digestion properties of cooked rice starches. International Journal of Biological Macromolecules, 2018, 107, 1080-1085.	3.6	67
30	Enzymatic hydrolysis of starch in the presence of cereal soluble fibre polysaccharides. Food and Function, 2014, 5, 579.	2.1	63
31	In vitro gastric digestion of cooked white and brown rice using a dynamic rat stomach model. Food Chemistry, 2017, 237, 1065-1072.	4.2	63
32	Preparation and characterization of gelatinized granular starches from aqueous ethanol treatments. Carbohydrate Polymers, 2012, 90, 1587-1594.	5.1	61
33	Quantitative structural organisation model for wheat endosperm cell walls: Cellulose as an important constituent. Carbohydrate Polymers, 2018, 196, 199-208.	5.1	61
34	High-amylose wheat starch: Structural basis for water absorption and pasting properties. Carbohydrate Polymers, 2020, 245, 116557.	5.1	61
35	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
36	Texture and digestion of noodles with varied gluten contents and cooking time: The view from protein matrix and inner structure. Food Chemistry, 2020, 315, 126230.	4.2	56

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37	Protein-starch matrix plays a key role in enzymic digestion of high-amylose wheat noodle. Food Chemistry, 2021, 336, 127719.	4.2	55
38	Amylase binding to starch granules under hydrolysing and non-hydrolysing conditions. Carbohydrate Polymers, 2014, 113, 97-107.	5.1	54
39	Extrusion induced low-order starch matrices: Enzymic hydrolysis and structure. Carbohydrate Polymers, 2015, 134, 485-496.	5.1	54
40	Milling of rice grains: The roles of starch structures in the solubility and swelling properties of rice flour. Starch/Staerke, 2012, 64, 631-645.	1.1	53
41	A more general approach to fitting digestion kinetics of starch in food. Carbohydrate Polymers, 2019, 225, 115244.	5.1	53
42	Effect of a gibberellin-biosynthesis inhibitor treatment on the physicochemical properties of sorghum starch. Journal of Cereal Science, 2011, 53, 328-334.	1.8	51
43	In vitro digestibility and physicochemical properties of milled rice. Food Chemistry, 2015, 172, 757-765.	4.2	50
44	Wall porosity in isolated cells from food plants: Implications for nutritional functionality. Food Chemistry, 2019, 279, 416-425.	4.2	49
45	Tribology of swollen starch granule suspensions from maize and potato. Carbohydrate Polymers, 2017, 155, 128-135.	5.1	47
46	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
47	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
48	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
49	Rheological and microstructural properties of porcine gastric digesta and diets containing pectin or mango powder. Carbohydrate Polymers, 2016, 148, 216-226.	5.1	39
50	Lupin proteins: Structure, isolation and application. Trends in Food Science and Technology, 2021, 116, 928-939.	7.8	39
51	Structural properties and digestion of green banana flour as a functional ingredient in pasta. Food and Function, 2016, 7, 771-780.	2.1	38
52	Starch digestion in intact pulse cotyledon cells depends on the extent of thermal treatment. Food Chemistry, 2020, 315, 126268.	4.2	38
53	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
54	Surface structural features control in vitro digestion kinetics of bean starches. Food Hydrocolloids, 2018, 85, 343-351.	5.6	34

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55	High-amylose wheat bread with reduced in vitro digestion rate and enhanced resistant starch content. Food Hydrocolloids, 2022, 123, 107181.	5.6	34
56	Structural, gelatinization, and rheological properties of heat-moisture treated potato starch with added salt and its application in potato starch noodles. Food Hydrocolloids, 2022, 131, 107802.	5.6	33
57	Structural and physicochemical properties of granular starches after treatment with debranching enzyme. Carbohydrate Polymers, 2017, 169, 351-356.	5.1	32
58	Starch structure and nutritional functionality â€“ Past revelations and future prospects. Carbohydrate Polymers, 2022, 277, 118837.	5.1	32
59	Starch branching enzymes contributing to amylose and amylopectin fine structure in wheat. Carbohydrate Polymers, 2019, 224, 115185.	5.1	31
60	Side-by-side and exo-pitting degradation mechanism revealed from in vitro human fecal fermentation of granular starches. Carbohydrate Polymers, 2021, 263, 118003.	5.1	30
61	Starch digestion in intact pulse cells depends on the processing induced permeability of cell walls. Carbohydrate Polymers, 2019, 225, 115204.	5.1	28
62	In vitro fecal fermentation outcomes of starch-lipid complexes depend on starch assembles more than lipid type. Food Hydrocolloids, 2021, 120, 106941.	5.6	28
63	Dietary polyphenols bind to potato cells and cellular components. Journal of Functional Foods, 2017, 37, 283-292.	1.6	26
64	Natural â€˜capsuleâ€™ in food plants: Cell wall porosity controls starch digestion and fermentation. Food Hydrocolloids, 2021, 117, 106657.	5.6	26
65	Ordered structural changes of retrograded starch gel over long-term storage in wet starch noodles. Carbohydrate Polymers, 2021, 270, 118367.	5.1	26
66	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
67	Manipulating raw noodle crystallinity to control the hardness of cooked noodle. LWT - Food Science and Technology, 2019, 109, 305-312.	2.5	24
68	Heterogeneity in maize starch granule internal architecture deduced from diffusion of fluorescent dextran probes. Carbohydrate Polymers, 2013, 93, 365-373.	5.1	23
69	Structural features and starch digestion properties of intact pulse cotyledon cells modified by heat-moisture treatment. Journal of Functional Foods, 2019, 61, 103500.	1.6	23
70	Microstructural properties of potato chips. Food Structure, 2018, 16, 17-26.	2.3	22
71	Long glucan chains reduce in vitro starch digestibility of freshly cooked and retrograded milled rice. Journal of Cereal Science, 2019, 86, 108-116.	1.8	22
72	RS Content and eGI Value of Cooked Noodles (I): Effect of Cooking Methods. Foods, 2020, 9, 328.	1.9	21

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73	Camel milk-derived probiotic strains encapsulated in camel casein and gelatin complex microcapsules: Stability against thermal challenge and simulated gastrointestinal digestion conditions. Journal of Dairy Science, 2022, 105, 1862-1877.	1.4	21
74	Starch granular protein of high-amylose wheat gives innate resistance to amylolysis. Food Chemistry, 2020, 330, 127328.	4.2	20
75	Formation of Resistant Starch During Processing and Storage of Instant Noodles. International Journal of Food Properties, 2010, 13, 454-463.	1.3	19
76	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
77	In vitro colonic fermentation profiles and microbial responses of propionylated high-amylose maize starch by individual Bacteroides-dominated enterotype inocula. Food Research International, 2021, 144, 110317.	2.9	19
78	Intact cells: â€œNutritional capsulesâ€•in plant foods. Comprehensive Reviews in Food Science and Food Safety, 2022, 21, 1198-1217.	5.9	19
79	In vitro fermentation of human milk oligosaccharides by individual Bifidobacterium longum-dominant infant fecal inocula. Carbohydrate Polymers, 2022, 287, 119322.	5.1	18
80	In vivo digestibility of cross-linked phosphorylated (RS4) wheat starch in ileostomy subjects. Bioactive Carbohydrates and Dietary Fibre, 2017, 12, 25-36.	1.5	14
81	Storage temperature and time affect the enzyme resistance starch and glycemic response of cooked noodles. Food Chemistry, 2021, 344, 128702.	4.2	14
82	In vitro fermentation of legume cells and components: Effects of cell encapsulation and starch/protein interactions. Food Hydrocolloids, 2021, 113, 106538.	5.6	14
83	Starch granule size: Does it matter?. Critical Reviews in Food Science and Nutrition, 2023, 63, 3683-3703.	5.4	14
84	Cell wall permeability of pinto bean cotyledon cells regulate <i>in vitro</i> fecal fermentation and gut microbiota. Food and Function, 2021, 12, 6070-6082.	2.1	10
85	Starch retrogradation in potato cells: Structure and in vitro digestion paradigm. Carbohydrate Polymers, 2022, 286, 119261.	5.1	9
86	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
87	Ring Shear Tester as an in-vitro testing tool to study oral processing of comminuted potato chips. Food Research International, 2019, 123, 208-216.	2.9	7
88	Rheological characterisation of cell walls from wheat flour and endosperm: Effects of diferulate crosslink hydrolysis. Food Hydrocolloids, 2019, 88, 265-271.	5.6	7
89	Effect of Biscuit Baking Conditions on the Stability of Microencapsulated 5-Methyltetrahydrofolic Acid and Their Physical Properties. Food and Nutrition Sciences (Print), 2012, 03, 1445-1452.	0.2	7
90	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

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91	Bioactives from Millet: Properties and Effects of Processing on Bioavailability. , 2019, , 171-183.		6
92	Mashing performance as a function of malt particle size in beer production. Critical Reviews in Food Science and Nutrition, 2023, 63, 5372-5387.	5.4	4
93	Evaluation of Modified Sorghum Starches and Biodegradable Films. Journal of Food Science and Technology Nepal, 0, 10, 11-17.	0.2	3
94	Quantifying Grain Digestibility of Starch Fractions in Milled Rice. Methods in Molecular Biology, 2019, 1892, 241-252.	0.4	3
95	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
96	Dietary Fibers: Structural Aspects and Nutritional Implications. , 2021, , 505-524.		1
97	Î±-Amylase interaction with soluble fibre: Insights from diffusion experiment using fluorescence recovery after photobleaching (FRAP) and permeation experiment using ultrafiltration membrane. Bioactive Carbohydrates and Dietary Fibre, 2022, 28, 100319.	1.5	1