Sushil Dhital

List of Publications by Citations

95 papers	3,547 citations	37 h-index	57 g-index
97 ext. papers	4,475 ext. citations	8.4 avg, IF	6.08 L-index

#	Paper	IF	Citations
95	Relationship between granule size and in vitro digestibility of maize and potato starches. *Carbohydrate Polymers*, **2010**, 82, 480-488	10.3	213
94	Mechanisms of starch digestion by αamylase-Structural basis for kinetic properties. *Critical Reviews in Food Science and Nutrition*, **2017**, 57, 875-892	11.5	210
93	Inhibition of αamylase activity by cellulose: Kinetic analysis and nutritional implications. *Carbohydrate Polymers*, **2015**, 123, 305-12	10.3	137
92	Intactness of cell wall structure controls the in vitro digestion of starch in legumes. *Food and Function*, **2016**, 7, 1367-79	6.1	135
91	Synergistic and antagonistic effects of αAmylase and amyloglucosidase on starch digestion. *Biomacromolecules*, **2013**, 14, 1945-54	6.9	119
90	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
89	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
88	Milling of rice grains: effects of starch/flour structures on gelatinization and pasting properties. *Carbohydrate Polymers*, **2013**, 92, 682-90	10.3	95
87	Densely packed matrices as rate determining features in starch hydrolysis. *Trends in Food Science and Technology*, **2015**, 43, 18-31	15.3	94
86	Molecular, mesoscopic and microscopic structure evolution during amylase digestion of maize starch granules. *Carbohydrate Polymers*, **2012**, 90, 23-33	10.3	94
85	Effect of cryo-milling on starches: Functionality and digestibility. *Food Hydrocolloids*, **2010**, 24, 152-163	10.6	90
84	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
83	Effects of grain milling on starch structures and flour/starch properties. *Starch/Staerke*, **2014**, 66, 15-27	2.3	85
82	The interplay of αamylase and amyloglucosidase activities on the digestion of starch in in vitro enzymic systems. *Carbohydrate Polymers*, **2015**, 117, 192-200	10.3	82
81	Freeze-drying changes the structure and digestibility of B-polymorphic starches. *Journal of Agricultural and Food Chemistry*, **2014**, 62, 1482-91	5.7	82
80	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
79	Rice starch granule amylolysis--differentiating effects of particle size, morphology, thermal properties and crystalline polymorph. *Carbohydrate Polymers*, **2015**, 115, 305-16	10.3	76

78	The adsorption of α-amylase on barley proteins affects the in vitro digestion of starch in barley flour. *Food Chemistry*, **2018**, 241, 493-501	8.5	72
77	Multilevel Structure of Wheat Starch and Its Relationship to Noodle Eating Qualities. *Comprehensive Reviews in Food Science and Food Safety*, **2017**, 16, 1042-1055	16.4	72
76	Interactions among macronutrients in wheat flour determine their enzymic susceptibility. *Food Hydrocolloids*, **2016**, 61, 415-425	10.6	62
75	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
74	Enzymatic hydrolysis of starch in the presence of cereal soluble fibre polysaccharides. *Food and Function*, **2014**, 5, 579-86	6.1	52
73	Cryo-milling of starch granules leads to differential effects on molecular size and conformation. *Carbohydrate Polymers*, **2011**, 84, 1133-1140	10.3	52
72	Preparation and characterization of gelatinized granular starches from aqueous ethanol treatments. *Carbohydrate Polymers*, **2012**, 90, 1587-94	10.3	49
71	Intact cellular structure in cereal endosperm limits starch digestion in vitro. *Food Hydrocolloids*, **2018**, 81, 139-148	10.6	46
70	Encapsulation of Lactobacillus plantarum in porous maize starch. *LWT - Food Science and Technology*, **2016**, 74, 542-549	5.4	46
69	Effect of a gibberellin-biosynthesis inhibitor treatment on the physicochemical properties of sorghum starch. *Journal of Cereal Science*, **2011**, 53, 328-334	3.8	44
68	In vitro gastric digestion of cooked white and brown rice using a dynamic rat stomach model. *Food Chemistry*, **2017**, 237, 1065-1072	8.5	43
67	Extrusion induced low-order starch matrices: Enzymic hydrolysis and structure. *Carbohydrate Polymers*, **2015**, 134, 485-96	10.3	43
66	Milling of rice grains: The roles of starch structures in the solubility and swelling properties of rice flour. *Starch/Staerke*, **2012**, 64, 631-645	2.3	43
65	Wood hemicelluloses exert distinct biomechanical contributions to cellulose fibrillar networks. *Nature Communications*, **2020**, 11, 4692	17.4	43
64	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
63	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
62	Amylase binding to starch granules under hydrolysing and non-hydrolysing conditions. *Carbohydrate Polymers*, **2014**, 113, 97-107	10.3	41
61	Quantitative structural organisation model for wheat endosperm cell walls: Cellulose as an important constituent. *Carbohydrate Polymers*, **2018**, 196, 199-208	10.3	41

60	Effects of palm oil on structural and in vitro digestion properties of cooked rice starches. *International Journal of Biological Macromolecules*, **2018**, 107, 1080-1085	7.9	40
59	In vitro digestibility and physicochemical properties of milled rice. *Food Chemistry*, **2015**, 172, 757-65	8.5	38
58	Tribology of swollen starch granule suspensions from maize and potato. *Carbohydrate Polymers*, **2017**, 155, 128-135	10.3	34
57	Rheological and microstructural properties of porcine gastric digesta and diets containing pectin or mango powder. *Carbohydrate Polymers*, **2016**, 148, 216-26	10.3	32
56	Wall porosity in isolated cells from food plants: Implications for nutritional functionality. *Food Chemistry*, **2019**, 279, 416-425	8.5	32
55	A more general approach to fitting digestion kinetics of starch in food. *Carbohydrate Polymers*, **2019**, 225, 115244	10.3	29
54	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
53	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
52	Mammalian mucosal α-glucosidases coordinate with α-amylase in the initial starch hydrolysis stage to have a role in starch digestion beyond glucogenesis. *PLoS ONE*, **2013**, 8, e62546	3.7	27
51	Biomolecule-based pickering food emulsions: Intrinsic components of food matrix, recent trends and prospects. *Food Hydrocolloids*, **2021**, 112, 106303	10.6	27
50	High-amylose wheat starch: Structural basis for water absorption and pasting properties. *Carbohydrate Polymers*, **2020**, 245, 116557	10.3	26
49	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	8.5	22
48	Surface structural features control in vitro digestion kinetics of bean starches. *Food Hydrocolloids*, **2018**, 85, 343-351	10.6	22
47	Structural and physicochemical properties of granular starches after treatment with debranching enzyme. *Carbohydrate Polymers*, **2017**, 169, 351-356	10.3	21
46	Starch digestion in intact pulse cotyledon cells depends on the extent of thermal treatment. *Food Chemistry*, **2020**, 315, 126268	8.5	21
45	Structural properties and digestion of green banana flour as a functional ingredient in pasta. *Food and Function*, **2016**, 7, 771-80	6.1	21
44	Heterogeneity in maize starch granule internal architecture deduced from diffusion of fluorescent dextran probes. *Carbohydrate Polymers*, **2013**, 93, 365-73	10.3	21
43	Protein-starch matrix plays a key role in enzymic digestion of high-amylose wheat noodle. *Food Chemistry*, **2021**, 336, 127719	8.5	21

42	Starch branching enzymes contributing to amylose and amylopectin fine structure in wheat. *Carbohydrate Polymers*, **2019**, 224, 115185	10.3	20
41	Dietary polyphenols bind to potato cells and cellular components. *Journal of Functional Foods*, **2017**, 37, 283-292	5.1	20
40	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
39	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
38	Long glucan chains reduce in vitro starch digestibility of freshly cooked and retrograded milled rice. *Journal of Cereal Science*, **2019**, 86, 108-116	3.8	15
37	Microstructural properties of potato chips. *Food Structure*, **2018**, 16, 17-26	4.3	13
36	Formation of Resistant Starch During Processing and Storage of Instant Noodles. *International Journal of Food Properties*, **2010**, 13, 454-463	3	13
35	Starch digestion in intact pulse cells depends on the processing induced permeability of cell walls. *Carbohydrate Polymers*, **2019**, 225, 115204	10.3	12
34	Manipulating raw noodle crystallinity to control the hardness of cooked noodle. *LWT - Food Science and Technology*, **2019**, 109, 305-312	5.4	12
33	Structural features and starch digestion properties of intact pulse cotyledon cells modified by heat-moisture treatment. *Journal of Functional Foods*, **2019**, 61, 103500	5.1	12
32	Natural □capsule□ in food plants: Cell wall porosity controls starch digestion and fermentation. *Food Hydrocolloids*, **2021**, 117, 106657	10.6	12
31	Starch granular protein of high-amylose wheat gives innate resistance to amylolysis. *Food Chemistry*, **2020**, 330, 127328	8.5	10
30	In vivo digestibility of cross-linked phosphorylated (RS4) wheat starch in ileostomy subjects. *Bioactive Carbohydrates and Dietary Fibre*, **2017**, 12, 25-36	3.4	10
29	Side-by-side and exo-pitting degradation mechanism revealed from in vitro human fecal fermentation of granular starches. *Carbohydrate Polymers*, **2021**, 263, 118003	10.3	10
28	Dietary fiber-gluten protein interaction in wheat flour dough: Analysis, consequences and proposed mechanisms. *Food Hydrocolloids*, **2021**, 111, 106203	10.6	10
27	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	5.7	9
26	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	7	8
25	High-amylose wheat bread with reduced in vitro digestion rate and enhanced resistant starch content. *Food Hydrocolloids*, **2022**, 123, 107181	10.6	8

24	RS Content and eGI Value of Cooked Noodles (I): Effect of Cooking Methods. *Foods*, **2020**, 9,	4.9	7
23	Lupin proteins: Structure, isolation and application. *Trends in Food Science and Technology*, **2021**, 116, 928-939	15.3	7
22	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	0.4	6
21	Starch structure and nutritional functionality - Past revelations and future prospects. *Carbohydrate Polymers*, **2022**, 277, 118837	10.3	5
20	Ordered structural changes of retrograded starch gel over long-term storage in wet starch noodles. *Carbohydrate Polymers*, **2021**, 270, 118367	10.3	5
19	Ring Shear Tester as an in-vitro testing tool to study oral processing of comminuted potato chips. *Food Research International*, **2019**, 123, 208-216	7	4
18	In vitro fecal fermentation outcomes of starch-lipid complexes depend on starch assembles more than lipid type. *Food Hydrocolloids*, **2021**, 120, 106941	10.6	4
17	Bioactives from Millet: Properties and Effects of Processing on Bioavailability **2019**, 171-183		3
16	Rheological characterisation of cell walls from wheat flour and endosperm: Effects of diferulate crosslink hydrolysis. *Food Hydrocolloids*, **2019**, 88, 265-271	10.6	3
15	Storage temperature and time affect the enzyme resistance starch and glycemic response of cooked noodles. *Food Chemistry*, **2021**, 344, 128702	8.5	3
14	In vitro fermentation of legume cells and components: Effects of cell encapsulation and starch/protein interactions. *Food Hydrocolloids*, **2021**, 113, 106538	10.6	3
13	Cell wall permeability of pinto bean cotyledon cells regulate fecal fermentation and gut microbiota. *Food and Function*, **2021**, 12, 6070-6082	6.1	3
12	Quantifying Grain Digestibility of Starch Fractions in Milled Rice. *Methods in Molecular Biology*, **2019**, 1892, 241-252	1.4	2
11	In vitro fermentation of human milk oligosaccharides by individual Bifidobacterium longum-dominant infant fecal inocula.. *Carbohydrate Polymers*, **2022**, 287, 119322	10.3	2
10	Structural, gelatinization, and rheological properties of heat-moisture treated potato starch with added salt and its application in potato starch noodles. *Food Hydrocolloids*, **2022**, 107802	10.6	2
9	Intact cells: "Nutritional capsules" in plant foods.. *Comprehensive Reviews in Food Science and Food Safety*, **2022**,	16.4	1
8	Evaluation of Modified Sorghum Starches and Biodegradable Films. *Journal of Food Science and Technology Nepal*, **2018**, 10, 11-17	0.2	1
7	Starch retrogradation in potato cells: Structure and in vitro digestion paradigm.. *Carbohydrate Polymers*, **2022**, 286, 119261	10.3	1

6	Starch granule size: Does it matter?. *Critical Reviews in Food Science and Nutrition*, **2021**, 1-21	11.5	0
5	Multiple length scale structure-property relationships of wheat starch oxidized by sodium hypochlorite or hydrogen peroxide. *Carbohydrate Polymer Technologies and Applications*, **2021**, 2, 100147	1.7	0
4	Mashing performance as a function of malt particle size in beer production.. *Critical Reviews in Food Science and Nutrition*, **2021**, 1-16	11.5	0
3	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	10.6	0
2	Dietary Fibers: Structural Aspects and Nutritional Implications **2021**, 505-524		
1	□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	3.4	