Shujun Wang

List of Publications by Citations

113	4,243	34	63
papers	citations	h-index	g-index
115	5,441	7.1	6.19
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
113	Starch Retrogradation: A Comprehensive Review. *Comprehensive Reviews in Food Science and Food Safety*, **2015**, 14, 568-585	16.4	708
112	Molecular disassembly of starch granules during gelatinization and its effect on starch digestibility: a review. *Food and Function*, **2013**, 4, 1564-80	6.1	335
111	Effect of acid hydrolysis on starch structure and functionality: a review. *Critical Reviews in Food Science and Nutrition*, **2015**, 55, 1081-97	11.5	216
110	Effect of fatty acids on functional properties of normal wheat and waxy wheat starches: A structural basis. *Food Chemistry*, **2016**, 190, 285-292	8.5	117
109	High internal phase emulsions stabilized by starch nanocrystals. *Food Hydrocolloids*, **2018**, 82, 230-238	10.6	115
108	Alkali-induced changes in functional properties and in vitro digestibility of wheat starch: the role of surface proteins and lipids. *Journal of Agricultural and Food Chemistry*, **2014**, 62, 3636-43	5.7	111
107	New insights on the mechanism of acid degradation of pea starch. *Carbohydrate Polymers*, **2012**, 87, 1941-1949	10.7	99
106	Changes of multi-scale structure during mimicked DSC heating reveal the nature of starch gelatinization. *Scientific Reports*, **2016**, 6, 28271	4.9	85
105	Molecular order and functional properties of starches from three waxy wheat varieties grown in China. *Food Chemistry*, **2015**, 181, 43-50	8.5	84
104	Starch-lipid and starch-lipid-protein complexes: A comprehensive review. *Comprehensive Reviews in Food Science and Food Safety*, **2020**, 19, 1056-1079	16.4	80
103	Effect of alkali treatment on structure and function of pea starch granules. *Food Chemistry*, **2012**, 135, 1635-42	8.5	75
102	Structural Orders of Wheat Starch Do Not Determine the In Vitro Enzymatic Digestibility. *Journal of Agricultural and Food Chemistry*, **2017**, 65, 1697-1706	5.7	74
101	Structural and functional properties of starches from field peas. *Food Chemistry*, **2011**, 126, 1546-52	8.5	73
100	Annealing improves paste viscosity and stability of starch. *Food Hydrocolloids*, **2017**, 62, 203-211	10.6	71
99	Preparation and properties of halloysite nanotubes/plasticized Dioscorea opposita Thunb. starch composites. *Carbohydrate Polymers*, **2011**, 83, 186-191	10.3	68
98	A comparative study of annealing of waxy, normal and high-amylose maize starches: the role of amylose molecules. *Food Chemistry*, **2014**, 164, 332-8	8.5	66
97	Granular structure and allomorph position in C-type Chinese yam starch granule revealed by SEM, 13C CP/MAS NMR and XRD. *Food Hydrocolloids*, **2009**, 23, 426-433	10.6	65

96	Insights into the Formation and Structures of Starch-Protein-Lipid Complexes. *Journal of Agricultural and Food Chemistry*, **2017**, 65, 1960-1966	5.7	62
95	Molecular disassembly of rice and lotus starches during thermal processing and its effect on starch digestibility. *Food and Function*, **2016**, 7, 1188-95	6.1	60
94	Mechanisms Underlying the Formation of Complexes between Maize Starch and Lipids. *Journal of Agricultural and Food Chemistry*, **2018**, 66, 272-278	5.7	59
93	Phase transitions of pea starch over a wide range of water content. *Journal of Agricultural and Food Chemistry*, **2012**, 60, 6439-46	5.7	57
92	Structural and functional properties of starches from Chinese chestnuts. *Food Hydrocolloids*, **2015**, 43, 568-576	10.6	56
91	Applications of ionic liquids in starch chemistry: a review. *Green Chemistry*, **2020**, 22, 2162-2183	10	55
90	Mechanisms of starch gelatinization during heating of wheat flour and its effect on in vitro starch digestibility. *Food Hydrocolloids*, **2018**, 82, 370-378	10.6	54
89	New insights into loss of swelling power and pasting profiles of acid hydrolyzed starch granules. *Starch/Staerke*, **2012**, 64, 538-544	2.3	54
88	Insights into molecular structure and digestion rate of oat starch. *Food Chemistry*, **2017**, 220, 25-30	8.5	52
87	Discovery of a low-glycaemic index potato and relationship with starch digestion in vitro. *British Journal of Nutrition*, **2014**, 111, 699-705	3.6	51
86	Effects of Chain Length and Degree of Unsaturation of Fatty Acids on Structure and in Vitro Digestibility of Starch-Protein-Fatty Acid Complexes. *Journal of Agricultural and Food Chemistry*, **2018**, 66, 1872-1880	5.7	49
85	Phase transition and swelling behaviour of different starch granules over a wide range of water content. *LWT - Food Science and Technology*, **2014**, 59, 597-604	5.4	45
84	Cloning, expression, purification, and characterization of cold-adapted □amylase from Pseudoalteromonas arctica GS230. *Protein Journal*, **2010**, 29, 591-7	3.9	45
83	Retrogradation enthalpy does not always reflect the retrogradation behavior of gelatinized starch. *Scientific Reports*, **2016**, 6, 20965	4.9	44
82	Pea Starch Annealing: New Insights. *Food and Bioprocess Technology*, **2013**, 6, 3564-3575	5.1	43
81	The semi-crystalline growth rings of C-type pea starch granule revealed by SEM and HR-TEM during acid hydrolysis. *Carbohydrate Polymers*, **2008**, 74, 731-739	10.3	39
80	Effects of starch damage and yeast fermentation on acrylamide formation in bread. *Food Control*, **2017**, 73, 230-236	6.2	37
79	Multiscale Structural Changes of Wheat and Yam Starches during Cooking and Their Effect on in Vitro Enzymatic Digestibility. *Journal of Agricultural and Food Chemistry*, **2017**, 65, 156-166	5.7	34

78	Thermal and rheological properties of brown flour from Indica rice. *Journal of Cereal Science*, **2016**, 70, 270-274	3.8	34
77	Effects of particle size and water content during cooking on the physicochemical properties and in‐vitro starch digestibility of milled durum wheat grains. *Food Hydrocolloids*, **2018**, 77, 445-453	10.6	32
76	Revisiting Mechanisms Underlying Digestion of Starches. *Journal of Agricultural and Food Chemistry*, **2019**, 67, 8212-8226	5.7	31
75	Multi-scale structures and functional properties of starches from Indica hybrid, Japonica and waxy rice. *International Journal of Biological Macromolecules*, **2017**, 102, 136-143	7.9	30
74	In‐vitro starch digestibility of rice flour is not affected by method of cooking. *LWT - Food Science and Technology*, **2017**, 84, 536-543	5.4	28
73	Conformation and location of amorphous and semi-crystalline regions in C-type starch granules revealed by SEM, NMR and XRD. *Food Chemistry*, **2008**, 110, 39-46	8.5	28
72	Drying methods used in starch isolation change properties of C-type chestnut (Castanea mollissima) starches. *LWT - Food Science and Technology*, **2016**, 73, 663-669	5.4	28
71	Nature of thermal transitions of native and acid-hydrolysed pea starch: Does gelatinization really happen?. *Carbohydrate Polymers*, **2012**, 87, 1507-1514	10.3	27
70	Effect of laboratory milling on properties of starches isolated from different flour millstreams of hard and soft wheat. *Food Chemistry*, **2015**, 172, 504-14	8.5	26
69	Properties of starch from potatoes differing in glycemic index. *Food and Function*, **2014**, 5, 2509-15	6.1	26
68	Gelatinization behavior of starch: Reflecting beyond the endotherm measured by differential scanning calorimetry. *Food Chemistry*, **2019**, 284, 53-59	8.5	25
67	Molecular mechanisms underlying the formation of starch-lipid complexes during simulated food processing: A dynamic structural analysis. *Carbohydrate Polymers*, **2020**, 244, 116464	10.3	25
66	New insights into gelatinization mechanisms of cereal endosperm starches. *Scientific Reports*, **2018**, 8, 3011	4.9	25
65	Studies on the morphological, thermal and crystalline properties of starches separated from medicinal plants. *Journal of Food Engineering*, **2006**, 76, 420-426	6	25
64	Effect of purple yam flour substitution for wheat flour on in vitro starch digestibility of wheat bread. *Food Chemistry*, **2019**, 284, 118-124	8.5	25
63	Structural Changes of Starch-Lipid Complexes during Postprocessing and Their Effect on In Vitro Enzymatic Digestibility. *Journal of Agricultural and Food Chemistry*, **2019**, 67, 1530-1536	5.7	24
62	Toward a Better Understanding of Starch-Monoglyceride-Protein Interactions. *Journal of Agricultural and Food Chemistry*, **2018**, 66, 13253-13259	5.7	24
61	Physicochemical properties and in‐vitro digestibility of starches from field peas grown in China. *LWT - Food Science and Technology*, **2015**, 64, 829-836	5.4	22

60	Effects of hydrothermal-alkali and freezing-thawing pre-treatments on modification of corn starch with octenyl succinic anhydride. *Carbohydrate Polymers*, **2017**, 175, 361-369	10.3	22
59	Dissolution of Maize Starch in Aqueous Ionic Liquids: The Role of Alkyl Chain Length of Cation and Water:Ionic Liquid Ratio. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 6898-6905	8.3	19
58	RS5 Produced More Butyric Acid through Regulating the Microbial Community of Human Gut Microbiota. *Journal of Agricultural and Food Chemistry*, **2021**, 69, 3209-3218	5.7	19
57	The effect of NaCl on the formation of starch-lipid complexes. *Food Chemistry*, **2019**, 299, 125133	8.5	18
56	New insights into starch gelatinization by high pressure: Comparison with heat-gelatinization. *Food Chemistry*, **2020**, 318, 126493	8.5	17
55	Insights into structure and function of high pressure-modified starches with different crystalline polymorphs. *International Journal of Biological Macromolecules*, **2017**, 102, 414-424	7.9	16
54	Modification of Glutenin and Associated Changes in Digestibility Due to Methylglyoxal during Heat Processing. *Journal of Agricultural and Food Chemistry*, **2019**, 67, 10734-10743	5.7	16
53	Effect of dual modification by annealing and ultrahigh pressure on properties of starches with different polymorphs. *Carbohydrate Polymers*, **2017**, 174, 549-557	10.3	16
52	Trypsin and chymotrypsin are necessary for in vitro enzymatic digestion of rice starch. *RSC Advances* , **2017**, 7, 3660-3666	3.7	15
51	Toward a Better Understanding of Different Dissolution Behavior of Starches in Aqueous Ionic Liquids at Room Temperature. *ACS Omega*, **2019**, 4, 11312-11319	3.9	15
50	Partial characterization of starches from Dioscorea opposita Thunb. cultivars. *Journal of Food Engineering*, **2008**, 88, 287-293	6	15
49	Starch Spherulites Prepared by a Combination of Enzymatic and Acid Hydrolysis of Normal Corn Starch. *Journal of Agricultural and Food Chemistry*, **2018**, 66, 6357-6363	5.7	14
48	The new insight on ultrastructure of C-type starch granules revealed by acid hydrolysis. *International Journal of Biological Macromolecules*, **2008**, 43, 216-20	7.9	14
47	Effect of modified tapioca starches on the gelling properties of whey protein isolate. *Food Hydrocolloids*, **2019**, 93, 87-91	10.6	13
46	Extraction and identification of internal granule proteins from waxy wheat starch. *Starch/Staerke*, **2013**, 65, 186-190	2.3	12
45	Comparison of starches separated from three different F. cirrhosa. *Journal of Food Engineering*, **2007**, 80, 417-422	6	12
44	A method for characterizing short-range molecular order in amorphous starch. *Carbohydrate Polymers*, **2020**, 242, 116405	10.3	12
43	Revealing the mechanisms of starch amylolysis affected by tea catechins using surface plasmon resonance. *International Journal of Biological Macromolecules*, **2020**, 145, 527-534	7.9	10

42	Nature of phase transitions of waxy maize starch in water-ionic liquid mixtures. *International Journal of Biological Macromolecules*, **2018**, 112, 315-325	7.9	9
41	Morphological and Crystalline Properties of Starches from New Sources-Traditional Chinese Medicines (TCMs). *Starch/Staerke*, **2008**, 60, 110-114	2.3	9
40	Mechanistic studies of starch retrogradation and its effects on starch gel properties. *Food Hydrocolloids*, **2021**, 120, 106914	10.6	9
39	Dissolution Behavior of Maize Starch in Aqueous Ionic Liquids: Effect of Anionic Structure and Water/Ionic Liquid Ratio. *ACS Omega*, **2019**, 4, 14981-14986	3.9	8
38	Effect of CaCl pre-treatment on the succinylation of potato starch. *Food Chemistry*, **2019**, 288, 291-296	8.5	8
37	New insight into starch retrogradation: The effect of short-range molecular order in gelatinized starch. *Food Hydrocolloids*, **2021**, 120, 106921	10.6	8
36	Laser-MIG arc hybrid brazing-fusion welding of Al alloy to galvanized steel with different filler metals. *Acta Metallurgica Sinica (English Letters)*, **2013**, 26, 177-182	2.5	7
35	Phase transition of maize starch in aqueous ionic liquids: Effects of water:ionic liquid ratio and cation alkyl chain length. *Industrial Crops and Products*, **2020**, 144, 112043	5.9	7
34	Role of □Dicarbonyl Compounds in the Inhibition Effect of Reducing Sugars on the Formation of 2-Amino-1-methyl-6-phenylimidazo[4,5-b]pyridine. *Journal of Agricultural and Food Chemistry*, **2017**, 65, 10084-10092	5.7	6
33	Insights into structure-function relationships of starch from foxtail millet cultivars grown in China. *International Journal of Biological Macromolecules*, **2020**, 155, 1176-1183	7.9	6
32	Structural disorganization of cereal, tuber and bean starches in aqueous ionic liquid at room temperature: Role of starch granule surface structure. *Carbohydrate Polymers*, **2021**, 258, 117677	10.3	6
31	New insight into the interactions among starch, lipid and protein in model systems with different starches. *Food Hydrocolloids*, **2021**, 112, 106323	10.6	6
30	Mechanisms underlying the effect of gluten and its hydrolysates on in vitro enzymatic digestibility of wheat starch. *Food Hydrocolloids*, **2021**, 113, 106507	10.6	6
29	Novel Green Synthesis of Octenyl Succinic Anhydride Esters of Granular Starch. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 16503-16514	8.3	5
28	Effect of Drying Methods on Properties of Potato Flour and Noodles Made with Potato Flour. *Foods* , **2021**, 10,	4.9	4
27	In vitro digestibility of starches with different crystalline polymorphs at low □amylase activity to substrate ratio. *Food Chemistry*, **2021**, 349, 129170	8.5	4
26	Interactions Between Starch, Proteins and Lipids and the Formation of Ternary Complexes With Distinct Properties **2019**, 487-493		4
25	Degradation of Potato Starch and the Antioxidant Activity of the Hydrolysates. *Journal of Food Processing and Preservation*, **2017**, 41, e13068	2.1	3

24	Formation and migration of dicarbonyl compounds during storage and reheating of a sugary food simulation system. *Journal of the Science of Food and Agriculture*, **2020**, 100, 2296-2304	4.3	3
23	Octenyl Succinate Modification of Starch Enhances the Formation of Starch-Lipid Complexes. *Journal of Agricultural and Food Chemistry*, **2021**,	5.7	3
22	Mechanisms Underlying the Effect of Tea Extracts on Digestion of Wheat Starch. *Journal of Agricultural and Food Chemistry*, **2021**, 69, 8227-8235	5.7	3
21	Effect of protein-fatty acid interactions on the formation of starch-lipid-protein complexes. *Food Chemistry*, **2021**, 364, 130390	8.5	3
20	Effects of Heat Stress and Cultivar on the Functional Properties of Starch in Chinese Wheat. *Cereal Chemistry*, **2017**, 94, 443-450	2.4	2
19	Insights into the starch gelatinization behavior inside intact cotyledon cells. *International Journal of Biological Macromolecules*, **2020**, 163, 541-549	7.9	2
18	Changes of starch during thermal processing of foods: Current status and future directions. *Trends in Food Science and Technology*, **2022**, 119, 320-337	15.3	2
17	Effects of cooling rate and complexing temperature on the formation of starch-lauric acid-lactoglobulin complexes. *Carbohydrate Polymers*, **2021**, 253, 117301	10.3	2
16	Effects of Debranching on the Formation of Maize Starch-Lauric Acid-Lactoglobulin Complexes. *Journal of Agricultural and Food Chemistry*, **2021**, 69, 9086-9093	5.7	2
15	Multiscale Structures of Starch Granules **2020**, 41-55		1
14	Methods for characterizing the structure of starch in relation to its applications: a comprehensive review. *Critical Reviews in Food Science and Nutrition*, **2021**, 1-18	11.5	1
13	Dissolution of Cellulose in Ionic Liquid-DMSO Mixtures: Roles of DMSO/IL Ratio and the Cation Alkyl Chain Length. *ACS Omega*, **2021**, 6, 27225-27232	3.9	1
12	Effect of pH on formation of starch complexes with lauric acid and lactoglobulin. *LWT - Food Science and Technology*, **2020**, 132, 109915	5.4	1
11	Inhibition of in vitro enzymatic starch digestion by coffee extract. *Food Chemistry*, **2021**, 358, 129837	8.5	1
10	Effects of Reduced Nitrogen Fertilization and Irrigation on Structure and Physicochemical Properties of Starch in Two Bread Wheat Cultivars. *Agriculture (Switzerland)*, **2021**, 11, 26	3	1
9	Green synthesis of acetylated maize starch in different imidazolium carboxylate and choline carboxylate ionic liquids.. *Carbohydrate Polymers*, **2022**, 288, 119353	10.3	1
8	Starch, Treatment, and Modification **2020**, 1-26		0
7	Botanical Sources of Starch **2020**, 9-27		0

6	Rheological, Pasting, and Textural Properties of Starch **2020**, 121-129		0
5	Phase Transitions of Starch and Molecular Mechanisms **2020**, 77-120		0
4	Structure and Functional Properties of Purple Yam (Dioscorea alata L.) Starch from China. *Starch/Staerke*,2100310	2.3	0
3	Starch Modification and Application **2020**, 131-149		
2	Acid Stable Amylase Supplementation in Sourdough Enhanced Lactic Acid Bacterial Performance and the Quality of Bread. *Journal of Biobased Materials and Bioenergy*, **2021**, 15, 392-398	1.4	
1	Alterations of polysaccharides, starch gelatinization, and retrogradation **2021**, 171-214		