Xingxun Liu

List of Publications by Year
in descending order

92 papers	3,509 citations	117453 34 h-index	155451 55 g-index
92 all docs	92 docs citations	92 times ranked	3473 citing authors

#	Article	IF	Citations
1	Thermal degradation and stability of starch under different processing conditions. Starch/Staerke, 2013, 65, 48-60.	1.1	240
2	Effects of amylose/amylopectin ratio on starch-based superabsorbent polymers. Carbohydrate Polymers, 2012, 87, 1583-1588.	5.1	153
3	Kinetics and mechanism of thermal decomposition of cornstarches with different amylose/amylopectin ratios. Starch/Staerke, 2010, 62, 139-146.	1.1	146
4	Biodegradation and thermal decomposition of poly(lactic acid)-based materials reinforced by hydrophilic fillers. Polymer Degradation and Stability, 2010, 95, 1704-1707.	2.7	111
5	In situ thermal decomposition of starch with constant moisture in a sealed system. Polymer Degradation and Stability, 2008, 93, 260-262.	2.7	110
6	Internal structures and phase-transitions of starch granules during gelatinization. Carbohydrate Polymers, 2011, 83, 1975-1983.	5.1	100
7	Evaluations of physicochemical and biological properties of pullulan-based films incorporated with cinnamon essential oil and Tween 80. International Journal of Biological Macromolecules, 2019, 122, 388-394.	3.6	97
8	Developing hydroxypropyl methylcellulose/hydroxypropyl starch blends for use as capsule materials. Carbohydrate Polymers, 2013, 98, 73-79.	5.1	96
9	Lamellar structure change of waxy corn starch during gelatinization by time-resolved synchrotron SAXS. Food Hydrocolloids, 2017, 62, 43-48.	5.6	94
10	Effect of acid hydrolysis on the multi-scale structure change of starch with different amylose content. Food Hydrocolloids, 2017, 69, 359-368.	5.6	87
11	Thermal Decomposition of Corn Starch with Different Amylose/Amylopectin Ratios in Open and Sealed Systems. Cereal Chemistry, 2009, 86, 383-385.	1.1	84
12	Phase composition and interface of starchâ€“gelatin blends studied by synchrotron FTIR micro-spectroscopy. Carbohydrate Polymers, 2013, 95, 649-653.	5.1	84
13	Developing gelatinâ€“starch blends for use as capsule materials. Carbohydrate Polymers, 2013, 92, 455-461.	5.1	82
14	Effect of freezeâ€“thaw cycles on the molecular weight and size distribution of gluten. Food Research International, 2013, 53, 409-416.	2.9	81
15	Phase transitions of maize starches with different amylose contents in glycerolâ€“water systems. Carbohydrate Polymers, 2011, 85, 180-187.	5.1	74
16	Insights into molecular structure and digestion rate of oat starch. Food Chemistry, 2017, 220, 25-30.	4.2	72
17	Effects of Inorganic Fillers on the Thermal and Mechanical Properties of Poly(lactic acid). International Journal of Polymer Science, 2014, 2014, 1-8.	1.2	69
18	Combined crystalline, lamellar and granular structural insights into in vitro digestion rate of native starches. Food Hydrocolloids, 2020, 105, 105823.	5.6	67

#	Article	IF	Citations
19	Effects of hydrophilic fillers on the thermal degradation of poly(lactic acid). Thermochimica Acta, 2010, 509, 147-151.	1.2	66
20	Rheological & 3D printing properties of potato starch composite gels. Journal of Food Engineering, 2022, 313, 110756.	2.7	64
21	Thermal and rheological properties of brown flour from Indica rice. Journal of Cereal Science, 2016, 70, 270-274.	1.8	58
22	Amylose content and specific fine structures affect lamellar structure and digestibility of maize starches. Food Hydrocolloids, 2020, 108, 105994.	5.6	58
23	Effect of Frozen Storage on Molecular Weight, Size Distribution and Conformation of Gluten by SAXS and SEC-MALLS. Molecules, 2012, 17, 7169-7182.	1.7	53
24	Immunoregulatory and antitumor activity of schizophyllan under ultrasonic treatment. International Journal of Biological Macromolecules, 2015, 80, 302-308.	3.6	51
25	Shear degradation of corn starches with different amylose contents. Food Hydrocolloids, 2017, 66, 199-205.	5.6	50
26	Short-time microwave treatment affects the multi-scale structure and digestive properties of high-amylose maize starch. International Journal of Biological Macromolecules, 2019, 137, 870-877.	3.6	50
27	Effect of steam explosionâ€assisted extraction on phenolic acid profiles and antioxidant properties of wheat bran. Journal of the Science of Food and Agriculture, 2016, 96, 3484-3491.	1.7	47
28	Understanding how the aggregation structure of starch affects its gastrointestinal digestion rate and extent. International Journal of Biological Macromolecules, 2016, 87, 28-33.	3.6	47
29	Accelerating the degradation of polyolefins through additives and blending. Journal of Applied Polymer Science, 2014, 131, .	1.3	46
30	Emulsifying stability properties of octenyl succinic anhydride (OSA) modified waxy starches with different molecular structures. Food Hydrocolloids, 2018, 85, 248-256.	5.6	42
31	The multi-scale structure, thermal and digestion properties of mung bean starch. International Journal of Biological Macromolecules, 2019, 131, 871-878.	3.6	42
32	Gelatinization dynamics of starch in dependence of its lamellar structure, crystalline polymorphs and amylose content. Carbohydrate Polymers, 2020, 229, 115481.	5.1	39
33	Pyrophosphateâ€fructose 6â€phosphate 1â€phosphotransferase (<scp>PFP</scp>1) regulates starch biosynthesis and seed development via heterotetramer formation in rice (<i>Oryza sativa</i> L.). Plant Biotechnology Journal, 2020, 18, 83-95.	4.1	38
34	Structure and antioxidant activity of a novel poly-N-acetylhexosamine produced by a medicinal fungus. Carbohydrate Polymers, 2013, 94, 332-338.	5.1	36
35	Thermal-oxidative degradation of high-amylose corn starch. Journal of Thermal Analysis and Calorimetry, 2014, 115, 659-665.	2.0	35
36	Synthesis and Characterization of Biodegradable Starch-Polyacrylamide Graft Copolymers Using Starches with Different Microstructures. Journal of Polymers and the Environment, 2013, 21, 359-365.	2.4	34

#	Article	IF	Citations
37	Characterization of multi-scale structure and thermal properties of Indica rice starch with different amylose contents. RSC Advances, 2016, 6, 107491-107497.	1.7	33
38	Recent advances in enzyme biotechnology on modifying gelatinized and granular starch. Trends in Food Science and Technology, 2022, 123, 343-354.	7.8	32
39	Relationship between molecular structure and lamellar and crystalline structure of rice starch. Carbohydrate Polymers, 2021, 258, 117616.	5.1	29
40	Amylopectin starch granule lamellar structure as deduced from unit chain length data. Food Hydrocolloids, 2020, 108, 106053.	5.6	28
41	Molecular structures of octenyl succinic anhydride modified starches in relation to their ability to stabilize high internal phase emulsions and oleogels. Food Hydrocolloids, 2021, 120, 106953.	5.6	28
42	High-amylose starch as a new ingredient to balance nutrition and texture of food. Journal of Cereal Science, 2018, 81, 8-14.	1.8	27
43	Rice starch multi-level structure and functional relationships. Carbohydrate Polymers, 2022, 275, 118777.	5.1	27
44	Imaging the phase of starchâ€“gelatin blends by confocal Raman microscopy. Food Hydrocolloids, 2016, 60, 7-10.	5.6	26
45	Structure and digestion of hybrid Indica rice starch and its biosynthesis. International Journal of Biological Macromolecules, 2016, 93, 402-407.	3.6	25
46	The chemical profiling of loquat leaf extract by HPLC-DAD-ESI-MS and its effects on hyperlipidemia and hyperglycemia in rats induced by a high-fat and fructose diet. Food and Function, 2017, 8, 687-694.	2.1	25
47	Starch modification using a twinâ€roll mixer as a reactor. Starch/Staerke, 2012, 64, 821-825.	1.1	23
48	The relationship between the expression pattern of starch biosynthesis enzymes and molecular structure of high amylose maize starch. Carbohydrate Polymers, 2020, 247, 116681.	5.1	23
49	The effect of lamellar structure ordering on the retrogradation properties of canna starch subjected to thermal and enzymatic degradation. Food Hydrocolloids, 2017, 69, 185-192.	5.6	21
50	Ultrasonic disruption of fungal mycelia for efficient recovery of polysaccharideâ€“protein complexes from viscous fermentation broth of a medicinal fungus. Ultrasonics Sonochemistry, 2015, 22, 243-248.	3.8	20
51	Structural characterization and functionality of starches from different high-amylose maize hybrids. LWT - Food Science and Technology, 2020, 134, 110176.	2.5	20
52	Influence of microwave treatment on the structure and functionality of pure amylose and amylopectin systems. Food Hydrocolloids, 2021, 119, 106856.	5.6	20
53	Chemical mapping analysis of compatibility in gelatin and hydroxypropyl methylcellulose blend films. Food Hydrocolloids, 2020, 104, 105734.	5.6	19
54	Effects of thermal treatment on the microstructure and thermal and mechanical properties of poly(lactic acid) fibers. Polymer Engineering and Science, 2013, 53, 976-981.	1.5	18

#	Article	IF	Citations
55	Microwave irradiation alters the rheological properties and molecular structure of hull-less barley starch. Food Hydrocolloids, 2021, 120, 106821.	5.6	17
56	The effects of molecular fine structure on rice starch granule gelatinization dynamics as investigated by in situ small-angle X-ray scattering. Food Hydrocolloids, 2021, 121, 107014.	5.6	17
57	Different genetic strategies to generate high amylose starch mutants by engineering the starch biosynthetic pathways. Carbohydrate Polymers, 2022, 287, 119327.	5.1	17
58	DEVELOPMENT OF CAPSULES FROM NATURAL PLAN POLYMERS. Acta Polymerica Sinica, 2012, 013, 1-10.	0.0	16
59	New evidences of accelerating degradation of polyethylene by starch. Journal of Applied Polymer Science, 2013, 130, 2282-2287.	1.3	15
60	Insights into the structural and physicochemical properties of small granular starches from two hydrophyte duckweeds, Spirodela oligorrhiza and Lemna minor. Carbohydrate Research, 2016, 435, 208-214.	1.1	15
61	Molecular Structure Evaluation of Wheat Gluten during Frozen Storage. Food Biophysics, 2017, 12, 60-68.	1.4	15
62	Identification and Antioxidant Activity of a Novel Peptide from Baijiu. International Journal of Peptide Research and Therapeutics, 2020, 26, 1199-1210.	0.9	15
63	High pressure/temperature pasting and gelling of starch related to multilevel structure-analyzed with RVA 4800. Carbohydrate Polymers, 2022, 295, 119858.	5.1	15
64	Storage temperature and time affect the enzyme resistance starch and glycemic response of cooked noodles. Food Chemistry, 2021, 344, 128702.	4.2	14
65	The relationship between linear chain length distributions of amylopectin and the functional properties of the debranched starch-based films. Carbohydrate Polymers, 2022, 279, 119012.	5.1	14
66	Hypolipidaemic effects of oat flakes and <i>Î²</i>â€glucans derived from four Chinese naked oat (<i>Avena) Tj ETQq0 0 0 rgBT /Overloc 644-649.	1.7	13
67	Expression Pattern of Starch Biosynthesis Genes in Relation to the Starch Molecular Structure in High-Amylose Maize. Journal of Agricultural and Food Chemistry, 2021, 69, 2805-2815.	2.4	13
68	Thermal properties and miscibility of semiâ€crystalline and amorphous PLA blends. Journal of Applied Polymer Science, 2014, 131, .	1.3	12
69	Phase Transition of Waxy and Normal Wheat Starch Granules during Gelatinization. International Journal of Polymer Science, 2015, 2015, 1-7.	1.2	12
70	High-amylose starch: Structure, functionality and applications. Critical Reviews in Food Science and Nutrition, 2023, 63, 8568-8590.	5.4	12
71	Phenolic Compounds and Antioxidant Capacity of Brown Rice in China. International Journal of Food Engineering, 2016, 12, 537-546.	0.7	11
72	Simulated oral processing of cooked rice using texture analyzer equipped with multiple extrusion cell probe (TA/MEC). LWT - Food Science and Technology, 2021, 138, 110731.	2.5	11

#	Article	IF	Citations
73	Effect of starch multi-scale structure alteration on japonica rice flour functionality under infrared radiation drying and storage. LWT - Food Science and Technology, 2021, 143, 111126.	2.5	11
74	Enhancement of proâ€degradant performance in polyethylene/starch blends as a function of distribution. Journal of Applied Polymer Science, 2013, 128, 591-596.	1.3	10
75	Effect of modification extent of montmorillonite on the performance of starch nanocomposite films. Starch/Staerke, 2017, 69, 1700088.	1.1	10
76	Microwave treatment alters the fine molecular structure of waxy hull-less barley starch. International Journal of Biological Macromolecules, 2021, 193, 1086-1092.	3.6	10
77	Effect of neodymium stearate on cure and mechanical properties of epoxidized natural rubber. Journal of Rare Earths, 2012, 30, 721-724.	2.5	9
78	Starch Based Blends, Composites and Nanocomposites. Advanced Structured Materials, 2013, , 121-154.	0.3	8
79	Biosynthesis, structure and functionality of starch granules in maize inbred lines with different kernel dehydration rate. Food Chemistry, 2022, 368, 130796.	4.2	8
80	Multi-scale structure of A- and B-type granules of normal and waxy hull-less barley starch. International Journal of Biological Macromolecules, 2022, 200, 42-49.	3.6	8
81	Preparation of Cross-Linked High Amylose Corn-Starch and Its Effects on Self-Reinforced Starch Films. International Journal of Food Engineering, 2016, 12, 673-680.	0.7	6
82	Internal structure and textural properties of a milk protein composite gel construct produced by threeâ€dimensional printing. Journal of Food Science, 2021, 86, 1917-1927.	1.5	6
83	Rheological Properties of Polysaccharides from Longan (Dimocarpus longanLour.) Fruit. International Journal of Polymer Science, 2015, 2015, 1-5.	1.2	5
84	Novel nanoparticle materials for drug/food delivery-polysaccharides. ChemistrySelect, 2016, 1, .	0.7	5
85	Rheological properties of the polysaccharideâ€"protein complex from longan (Dimocarpus longan) Tj ETQq1 1 0.784314 rgBT /Overlock	1.7	3
86	Effects of Different Thermal Treatment Methods on Preparation and Physical Properties of High Amylose Maize Starch Based Films. International Journal of Food Engineering, 2018, 14, .	0.7	3
87	Pre-gelatinized Modification of Starch. , 2018, , 51-61.		2
88	Characterization of Food Structures and Functionalities. International Journal of Analytical Chemistry, 2018, 2018, 1-2.	0.4	2
89	Food Polymers Functionality and Applications. International Journal of Polymer Science, 2015, 2015, 1-1.	1.2	1
90	Optimal Extraction Methods for High Amylose Maize Starch Studied by Size-Exclusion Chromatography (SEC) and Small-Angle X-ray Scattering (SAXS). ACS Food Science & Technology, 2021, 1, 1920-1927.	1.3	1

#	Article	IF	Citations
91	Imaging the phase of starch-gelatin blends for use as capsule materials. Journal of Controlled Release, 2017, 259, e157-e158.	4.8	0
92	Understanding macromolecular interactions: key to developing new cerealâ€based foods. International Journal of Food Science and Technology, 2022, 57, 1847-1848.	1.3	0