Peter R Chang

List of Publications by Year
in descending order

128 papers	9,978 citations	31902 53 h-index	35952 97 g-index
142 all docs	142 docs citations	142 times ranked	9439 citing authors

#	Article	IF	Citations
1	Analytical, Biochemical and Physicochemical Aspects of Starch Granule Size, with Emphasis on Small Granule Starches: A Review. Starch/Staerke, 2004, 56, 89-99.	1.1	548
2	Surface acetylation of cellulose nanocrystal and its reinforcing function in poly(lactic acid). Carbohydrate Polymers, 2011, 83, 1834-1842.	5.1	344
3	Bionanocomposites based on pea starch and cellulose nanowhiskers hydrolyzed from pea hull fibre: Effect of hydrolysis time. Carbohydrate Polymers, 2009, 76, 607-615.	5.1	339
4	Fabrication and Characterization of Citric Acid-Modified Starch Nanoparticles/Plasticized-Starch Composites. Biomacromolecules, 2008, 9, 3314-3320.	2.6	323
5	Bamboo fiber and its reinforced composites: structure and properties. Cellulose, 2012, 19, 1449-1480.	2.4	288
6	Comparative study on the films of poly(vinyl alcohol)/pea starch nanocrystals and poly(vinyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 542 T	5.1	279
7	Starch composites reinforced by bamboo cellulosic crystals. Bioresource Technology, 2010, 101, 2529-2536.	4.8	264
8	Properties of biodegradable thermoplastic pea starch/carboxymethyl cellulose and pea starch/microcrystalline cellulose composites. Carbohydrate Polymers, 2008, 72, 369-375.	5.1	236
9	Transitional properties of starch colloid with particle size reduction from micro- to nanometer. Journal of Colloid and Interface Science, 2009, 339, 117-124.	5.0	233
10	Preparation and properties of glycerol plasticized-starch (GPS)/cellulose nanoparticle (CN) composites. Carbohydrate Polymers, 2010, 79, 301-305.	5.1	213
11	Green composites reinforced with hemp nanocrystals in plasticized starch. Journal of Applied Polymer Science, 2008, 109, 3804-3810.	1.3	202
12	Effect of agar on the microstructure and performance of potato starch film. Carbohydrate Polymers, 2009, 76, 299-304.	5.1	202
13	Effects of polymerâ€grafted natural nanocrystals on the structure and mechanical properties of poly(lactic acid): A case of cellulose whiskerâ€graftâ€polycaprolactone. Journal of Applied Polymer Science, 2009, 113, 3417-3425.	1.3	200
14	Starch-based composites reinforced with novel chitin nanoparticles. Carbohydrate Polymers, 2010, 80, 420-425.	5.1	194
15	Influence of formamide and water on the properties of thermoplastic starch/poly(lactic acid) blends. Carbohydrate Polymers, 2008, 71, 109-118.	5.1	187
16	Properties of biodegradable citric acid-modified granular starch/thermoplastic pea starch composites. Carbohydrate Polymers, 2009, 75, 1-8.	5.1	185
17	Fabrication and characterisation of chitosan nanoparticles/plasticised-starch composites. Food Chemistry, 2010, 120, 736-740.	4.2	185
18	Characterization of magnetic soluble starch-functionalized carbon nanotubes and its application for the adsorption of the dyes. Journal of Hazardous Materials, 2011, 186, 2144-2150.	6.5	185

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19	Effect of polysaccharide nanocrystals on structure, properties, and drug release kinetics of alginate-based microspheres. Colloids and Surfaces B: Biointerfaces, 2011, 85, 270-279.	2.5	183
20	Fabrication of ultra-light graphene-based gels and their adsorption of methylene blue. Chemical Engineering Journal, 2014, 240, 595-600.	6.6	175
21	Preparation and properties of glycerol plasticized-pea starch/zinc oxide-starch bionanocomposites. Carbohydrate Polymers, 2009, 75, 472-478.	5.1	156
22	Simultaneous reinforcing and toughening: New nanocomposites of waterborne polyurethane filled with low loading level of starch nanocrystals. Polymer, 2008, 49, 1860-1870.	1.8	153
23	Structure and properties of polysaccharide nanocrystal-doped supramolecular hydrogels based on Cyclodextrin inclusion. Polymer, 2010, 51, 4398-4407.	1.8	140
24	Polysaccharides as stabilizers for the synthesis of magnetic nanoparticles. Carbohydrate Polymers, 2011, 83, 640-644.	5.1	135
25	Structure and properties of starch nanocrystalâ€reinforced soy protein plastics. Polymer Composites, 2009, 30, 474-480.	2.3	134
26	Modification of porous starch for the adsorption of heavy metal ions from aqueous solution. Food Chemistry, 2015, 181, 133-139.	4.2	129
27	Epichlorohydrin-Cross-linked Hydroxyethyl Cellulose/Soy Protein Isolate Composite Films as Biocompatible and Biodegradable Implants for Tissue Engineering. ACS Applied Materials & Interfaces, 2016, 8, 2781-2795.	4.0	120
28	Structure and Mechanical Properties of Poly(lactic acid) Filled with (Starch) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 Td (nanocrystal)â€ 293, 763-770.	1.7	118
29	Physiological Effects of Magnetic Iron Oxide Nanoparticles Towards Watermelon. Journal of Nanoscience and Nanotechnology, 2013, 13, 5561-5567.	0.9	118
30	Biomimetic soy protein nanocomposites with calcium carbonate crystalline arrays for use as wood adhesive. Bioresource Technology, 2010, 101, 6235-6241.	4.8	114
31	Hydrophobic modification of cellulose nanocrystal via covalently grafting of castor oil. Cellulose, 2013, 20, 179-190.	2.4	112
32	The preparation and properties of dialdehyde starch and thermoplastic dialdehyde starch. Carbohydrate Polymers, 2010, 79, 296-300.	5.1	110
33	Preparation and properties of biodegradable poly(propylene carbonate)/thermoplastic dried starch composites. Carbohydrate Polymers, 2008, 71, 229-234.	5.1	106
34	A Novel Thermoformable Bionanocomposite Based on Cellulose Nanocrystalâ€graftâ€Poly(Ìµâ€caprolactone). Macromolecular Materials and Engineering, 2009, 294, 59-67.	1.7	105
35	Structural characterization and properties of starch/konjac glucomannan blend films. Carbohydrate Polymers, 2008, 74, 946-952.	5.1	103
36	Characterization of magnetic guar gum-grafted carbon nanotubes and the adsorption of the dyes. Carbohydrate Polymers, 2012, 87, 1919-1924.	5.1	101

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37	The composites based on plasticized starch and graphene oxide/reduced graphene oxide. Carbohydrate Polymers, 2013, 94, 63-70.	5.1	95
38	Structure and mechanical properties of new biomass-based nanocomposite: Castor oil-based polyurethane reinforced with acetylated cellulose nanocrystal. Carbohydrate Polymers, 2013, 95, 91-99.	5.1	91
39	Preparation and characterization of magnetic rectorite/iron oxide nanocomposites and its application for the removal of the dyes. Chemical Engineering Journal, 2011, 174, 489-494.	6.6	87
40	Poly(butylene succinate)â€based biocomposites filled with polysaccharide nanocrystals: Structure and properties. Polymer Composites, 2011, 32, 472-482.	2.3	84
41	Reinforcement and nucleation of acetylated cellulose nanocrystals in foamed polyester composites. Carbohydrate Polymers, 2015, 129, 208-215.	5.1	84
42	Preparation, Modification, and Application of Starch Nanocrystals in Nanomaterials: A Review. Journal of Nanomaterials, 2011, 2011, 1-13.	1.5	83
43	Influence of Citric Acid on the Properties of Glycerolâ€plasticized dry Starch (DTPS) and DTPS/Poly(lactic acid) Blends. Starch/Staerke, 2007, 59, 409-417.	1.1	82
44	Preparation and properties of plasticized starch/multiwalled carbon nanotubes composites. Journal of Applied Polymer Science, 2007, 106, 1431-1437.	1.3	78
45	Preparation and properties of halloysite nanotubes/plasticized Dioscorea opposita Thunb. starch composites. Carbohydrate Polymers, 2011, 83, 186-191.	5.1	76
46	Microdetermination of Diosgenin from Fenugreek (Trigonella foenum-graecum) Seeds. Journal of Agricultural and Food Chemistry, 2000, 48, 5206-5210.	2.4	75
47	Characteristics of Starch from Eight Quinoa Lines. Cereal Chemistry, 2005, 82, 216-222.	1.1	75
48	Pea starchâ€based composite films with pea hull fibers and pea hull fiberâ€derived nanowhiskers. Polymer Engineering and Science, 2009, 49, 369-378.	1.5	66
49	Effects of starch nanocrystals on structure and properties of waterborne polyurethane-based composites. Carbohydrate Polymers, 2011, 85, 824-831.	5.1	62
50	Accelerated skin wound healing by soy protein isolateâ€“modified hydroxypropyl chitosan composite films. International Journal of Biological Macromolecules, 2018, 118, 1293-1302.	3.6	61
51	Structure and properties of starch/Î±-zirconium phosphate nanocomposite films. Carbohydrate Polymers, 2009, 77, 358-364.	5.1	59
52	Preparation and properties of layered double hydroxideâ€“carboxymethylcellulose sodium/glycerol plasticized starch nanocomposites. Carbohydrate Polymers, 2011, 86, 877-882.	5.1	56
53	Preparation and properties of the succinic ester of porous starch. Carbohydrate Polymers, 2012, 88, 604-608.	5.1	56
54	Preparation and properties of plasticized starch modified with poly(Îµ-caprolactone) based waterborne polyurethane. Carbohydrate Polymers, 2008, 71, 119-125.	5.1	55

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55	Preparation of controllable porous starch with different starch concentrations by the single or dual freezing process. Carbohydrate Polymers, 2011, 86, 1181-1186.	5.1	55
56	Preparation of porous starch and its use as a structure-directing agent for production of porous zinc oxide. Carbohydrate Polymers, 2011, 83, 1016-1019.	5.1	52
57	Characterization of Magnetic Carbon Nanotubeâ€“Cyclodextrin Composite and Its Adsorption of Dye. Industrial & Engineering Chemistry Research, 2014, 53, 1415-1421.	1.8	51
58	Preparation and Properties of Thermoplastic Starch/Montmorillonite Nanocomposite Using N-(2-Hydroxyethyl)formamide as a New Additive. Journal of Polymers and the Environment, 2009, 17, 225-232.	2.4	49
59	Properties and structural characterization of oxidized starch/PVA/Ĩ±â€zirconium phosphate composites. Journal of Applied Polymer Science, 2010, 115, 1089-1097.	1.3	47
60	Preparation and characterization of starch-grafted multiwall carbon nanotube composites. Carbohydrate Polymers, 2011, 84, 1378-1383.	5.1	45
61	Amylose wrapped halloysite nanotubes. Carbohydrate Polymers, 2011, 84, 1426-1429.	5.1	43
62	Thermoplastic Soy Protein Nanocomposites Reinforced by Carbon Nanotubes. Macromolecular Materials and Engineering, 2007, 292, 780-788.	1.7	41
63	Porous cellulose spheres: Preparation, modification and adsorption properties. Chemosphere, 2016, 165, 399-408.	4.2	41
64	Characterizations of glycerol plasticized-starch (GPS)/carbon black (CB) membranes prepared by melt extrusion and microwave radiation. Carbohydrate Polymers, 2008, 74, 895-900.	5.1	40
65	Grapheneâ€“poly(vinyl alcohol) composites: Fabrication, adsorption and electrochemical properties. Applied Surface Science, 2014, 314, 815-821.	3.1	39
66	Preparation, Characterization, and In Vitro and In Vivo Evaluation of Cellulose/Soy Protein Isolate Composite Sponges. Journal of Biomaterials Applications, 2010, 24, 503-526.	1.2	38
67	Immobilization of urease onto cellulose spheres for the selective removal of urea. Cellulose, 2018, 25, 233-243.	2.4	38
68	Amyloseâ€“halloysiteâ€“TiO2 composites: Preparation, characterization and photodegradation. Applied Surface Science, 2015, 329, 256-261.	3.1	36
69	Rectoriteâ€“TiO2â€“Fe3O4 composites: Assembly, characterization, adsorption and photodegradation. Chemical Engineering Journal, 2014, 255, 49-54.	6.6	34
70	Structure and Properties of Blend Films Prepared from Castor Oil-Based Polyurethane/Soy Protein Derivative. Industrial & Engineering Chemistry Research, 2008, 47, 9330-9336.	1.8	33
71	Structure and properties of poly(butylene succinate) filled with lignin: A case of lignosulfonate. Journal of Applied Polymer Science, 2011, 121, 1717-1724.	1.3	33
72	Porous cellulose facilitated by ionic liquid [BMIM]Cl: fabrication, characterization, and modification. Cellulose, 2015, 22, 709-715.	2.4	33

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73	Physical properties and biocompatibility of cellulose/soy protein isolate membranes coagulated from acetic aqueous solution. Journal of Biomaterials Science, Polymer Edition, 2008, 19, 479-496.	1.9	31
74	Chitosan colloidal suspension composed of mechanically disassembled nanofibers. Journal of Colloid and Interface Science, 2011, 354, 637-643.	5.0	31
75	N,Nâ€Bis(2â€hydroxyethyl)formamide as a New Plasticizer for Thermoplastic Starch. Starch/Staerke, 2008, 60, 676-684.	1.1	30
76	Preparation and properties of starch-based film using N,N-bis(2-hydroxyethyl)formamide as a new plasticizer. Carbohydrate Polymers, 2010, 79, 306-311.	5.1	30
77	Preparation of fungus-derived chitin nanocrystals and their dispersion stability evaluation in aqueous media. Carbohydrate Polymers, 2017, 173, 610-618.	5.1	30
78	Nanocomposites based on plasticized starch and rectorite clay: Structure and properties. Carbohydrate Polymers, 2012, 89, 687-693.	5.1	29
79	Monolithic porous rectorite/starch composites: fabrication, modification and adsorption. Applied Surface Science, 2015, 349, 251-258.	3.1	28
80	Synthesis of rectorite/Fe3O4-CTAB composite for the removal of nitrate and phosphate from water. Journal of Industrial and Engineering Chemistry, 2016, 41, 165-174.	2.9	28
81	Fabrication and Characterization of Sb₂O₃/Carboxymethyl Cellulose Sodium and the Properties of Plasticized Starch Composite Films. Macromolecular Materials and Engineering, 2009, 294, 762-767.	1.7	27
82	Thermoforming starchâ€graftâ€polycaprolactone biocomposites via oneâ€pot microwave assisted ring opening polymerization. Journal of Applied Polymer Science, 2009, 113, 2973-2979.	1.3	27
83	Fabrication and reduction-sensitive behavior of polyion complex nano-micelles based on PEG-conjugated polymer containing disulfide bonds as a potential carrier of anti-tumor paclitaxel. Colloids and Surfaces B: Biointerfaces, 2013, 110, 59-65.	2.5	27
84	Structure and Properties of Soy Protein Plastics with Îµ-Caprolactone/Glycerol as Binary Plasticizers. Industrial & Engineering Chemistry Research, 2008, 47, 9389-9395.	1.8	25
85	N-(2-Hydroxypropyl)formamide and N-(2-hydroxyethyl)-N-methylformamide as two new plasticizers for thermoplastic starch. Carbohydrate Polymers, 2010, 80, 139-144.	5.1	24
86	Oxidized pea starch/chitosan composite films: Structural characterization and properties. Journal of Applied Polymer Science, 2010, 118, 3082-3088.	1.3	24
87	Improvement in physical properties and cytocompatibility of zein by incorporation of pea protein isolate. Journal of Materials Science, 2010, 45, 6775-6785.	1.7	23
88	Effect of aeration timing and interval during very-high-gravity ethanol fermentation. Process Biochemistry, 2011, 46, 1025-1028.	1.8	23
89	Shape memory histocompatible and biodegradable sponges for subcutaneous defect filling and repair: greatly reducing surgical incision. Journal of Materials Chemistry B, 2019, 7, 5848-5860.	2.9	23
90	In VitroBile Acid Binding and Short-Chain Fatty Acid Profile of Flax Fiber and Ethanol Co-Products. Journal of Medicinal Food, 2009, 12, 1065-1073.	0.8	22

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91	Self-assembled liquid crystal film from mechanically defibrillated chitosan nanofibers. Carbohydrate Polymers, 2011, 84, 686-689.	5.1	22
92	Coreâ€Shell Nanoblends from Soy Protein/Polystyrene by Emulsion Polymerization. Macromolecular Materials and Engineering, 2008, 293, 714-721.	1.7	21
93	Carbon nanotubeâ€“cyclodextrin adducts for electrochemical recognition of tartaric acid. Diamond and Related Materials, 2015, 55, 117-122.	1.8	21
94	Effects of starch nanocrystalâ€graftâ€polycaprolactone on mechanical properties of waterborne polyurethaneâ€based nanocomposites. Journal of Applied Polymer Science, 2009, 111, 619-627.	1.3	20
95	Characterization of new starches separated from several traditional Chinese medicines. Carbohydrate Polymers, 2010, 82, 148-152.	5.1	20
96	Fabrication and characterization of zirconium hydroxide-carboxymethyl cellulose sodium/plasticized Trichosanthes Kirilowii starch nanocomposites. Carbohydrate Polymers, 2011, 86, 1699-1704.	5.1	20
97	Facile Preparation of Soy Protein/Poly(vinyl alcohol) Blend Fibers with High Mechanical Performance by Wet-Spinning. Industrial & Engineering Chemistry Research, 2013, 52, 6177-6181.	1.8	20
98	Porous 3D network rectorite/chitosan gels: Preparation and adsorption properties. Applied Clay Science, 2015, 107, 21-27.	2.6	20
99	Aliphatic Amidediol and Glycerol as a Mixed Plasticizer for the Preparation of Thermoplastic Starch. Starch/Staerke, 2008, 60, 617-623.	1.1	18
100	N-(2-Hydroxyethyl)formamide as a new plasticizer for thermoplastic starch. Journal of Polymer Research, 2009, 16, 529-535.	1.2	18
101	Starch-based nanocomposites reinforced with layered zirconium phosphonate. Polymer Composites, 2010, 31, 1938-1946.	2.3	18
102	Effect of surface acetylatedâ€chitin nanocrystals on structure and mechanical properties of poly(lactic acid). Journal of Applied Polymer Science, 2014, 131, .	1.3	18
103	The fabrication and the properties of pretreated corn starch laurate. Carbohydrate Polymers, 2010, 80, 360-365.	5.1	17
104	The modification of carbon materials with carbon disulfide for the removal of Pb2+. Powder Technology, 2016, 301, 1-9.	2.1	17
105	Effects of layered silicate structure on the mechanical properties and structures of proteinâ€based bionanocomposites. Journal of Applied Polymer Science, 2009, 113, 1247-1256.	1.3	16
106	Formamide and 2-hydroxy-N-[2-(2-hydroxy-propionylamino)-ethyl] propionamide (HPEP) as a mixed plasticizer for thermoplastic starch. Carbohydrate Polymers, 2009, 78, 296-301.	5.1	16
107	Recent advances in bioâ€sourced polymeric carbohydrate/nanotube composites. Journal of Applied Polymer Science, 2014, 131, .	1.3	16
108	The modification of rectorite with carbon layers and trisodium trimetaphosphate for the removal of Pb 2+. Applied Clay Science, 2017, 146, 115-121.	2.6	15

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109	Electrically Conductive Carbon Black (CB)/Glycerol Plasticizedâ€Starch (GPS) Composites Prepared by Microwave Radiation. Starch/Staerke, 2008, 60, 373-375.	1.1	13
110	Preparation and Characterization of Plasticized Starch/Carbon Black-Oxide Nanocomposites. Industrial & Engineering Chemistry Research, 2012, 51, 7941-7947.	1.8	13
111	Effects of Incorporating Polycaprolactone and Flax Fiber into Glycerol-Plasticized Pea Starch. Journal of Polymers and the Environment, 2011, 19, 841-848.	2.4	12
112	Preparation and Characterization of Rectorite Gels. Industrial & Engineering Chemistry Research, 2013, 52, 5066-5071.	1.8	12
113	Fabrication and evaluation of physical properties and cytotoxicity of zein-based polyurethanes. Journal of Materials Science: Materials in Medicine, 2014, 25, 823-833.	1.7	12
114	Soy proteinâ€based nanocomposites reinforced by supramolecular nanoplatelets assembled from pluronic polymers/Î²â€cyclodextrin pseudopolyrotaxanes. Journal of Applied Polymer Science, 2008, 107, 409-417.	1.3	10
115	Relationship of thermoplastic starch crystallinity to plasticizer structure. Starch/Staerke, 2010, 62, 86-89.	1.1	9
116	Preparation and properties of thermoplastic pea starch using N,Nâ€bis(2â€hydroxyethyl)formamide as the plasticizer. Polymer Engineering and Science, 2010, 50, 970-977.	1.5	8
117	Porous graphene gels: Preparation and its electrochemical properties. Materials Chemistry and Physics, 2014, 146, 446-451.	2.0	8
118	Improvement in hemocompatibility of chitosan/soy protein composite membranes by heparinization. Bio-Medical Materials and Engineering, 2012, 22, 143-150.	0.4	7
119	Simultaneous Determination of Resibufogenin and Its Major Metabolite 3-epi-Resibufogenin in Rat Plasma by HPLC Coupled with Tandem Mass Spectrometry. Chromatographia, 2012, 75, 103-109.	0.7	7
120	Preparation of Sb₂O₃â€Carboxymethyl Cellulose Sodium Nanoparticles and Their Reinforcing Action on Plasticized Starch. Starch/Staerke, 2009, 61, 665-668.	1.1	5
121	Soy protein-modified waterborne polyurethane biocomposites with improved functionality. RSC Advances, 2016, 6, 12837-12849.	1.7	5
122	Konjac Glucomannan-Assisted Synthesis of FeNi nanoparticles and Their Magnetic Properties. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2012, 42, 1036-1039.	0.6	4
123	Self-Assembled Polymeric Nanomicelles as Delivery Carriers for Antitumor Drug Camptothecin. Journal of Dispersion Science and Technology, 2012, 33, 293-306.	1.3	4
124	Development of t50 and its application to evaluate very-high-gravity ethanol fermentation. Journal of Bioscience and Bioengineering, 2011, 112, 388-394.	1.1	2
125	Supramolecular Hydrogels Based on Cyclodextrin Poly(Pseudo)Rotaxane for New and Emerging Biomedical Applications. , 2014, , 405-438.		2
126	Effects of Pea Protein Nanophase on Structure and Properties of Waterborne Polyurethane-Based Composites. Journal of Biobased Materials and Bioenergy, 2012, 6, 108-114.	0.1	2

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127	Bio-nanocomposites with non-cellulosic biofillers. , 2011, , 71-100.		1
128	Soy protein-based polymer nanocomposites. , 2011, , 261-282.		0