Qi Zhou

List of Publications by Citations

86 papers	7,643 citations	46 h-index	87 g-index
88 ext. papers	8,450 ext. citations	7.2 avg, IF	6.23 L-index

#	Paper	IF	Citations
86	Review of the recent developments in cellulose nanocomposite processing. *Composites Part A: Applied Science and Manufacturing*, **2016**, 83, 2-18	8.4	466
85	Multifunctional bionanocomposite films of poly(lactic acid), cellulose nanocrystals and silver nanoparticles. *Carbohydrate Polymers*, **2012**, 87, 1596-1605	10.3	458
84	Functionalized cellulose nanocrystals as biobased nucleation agents in poly(l-lactide) (PLLA) Crystallization and mechanical property effects. *Composites Science and Technology*, **2010**, 70, 815-821	8.6	416
83	High-porosity aerogels of high specific surface area prepared from nanofibrillated cellulose (NFC). *Composites Science and Technology*, **2011**, 71, 1593-1599	8.6	398
82	Strong and tough cellulose nanopaper with high specific surface area and porosity. *Biomacromolecules*, **2011**, 12, 3638-44	6.9	373
81	Mechanical performance tailoring of tough ultra-high porosity foams prepared from cellulose I nanofiber suspensions. *Soft Matter*, **2010**, 6, 1824	3.6	339
80	Strong Nanocomposite Reinforcement Effects in Polyurethane Elastomer with Low Volume Fraction of Cellulose Nanocrystals. *Macromolecules*, **2011**, 44, 4422-4427	5.5	327
79	Fast preparation procedure for large, flat cellulose and cellulose/inorganic nanopaper structures. *Biomacromolecules*, **2010**, 11, 2195-8	6.9	310
78	Hydrophobic cellulose nanocrystals modified with quaternary ammonium salts. *Journal of Materials Chemistry*, **2012**, 22, 19798		244
77	Surface quaternized cellulose nanofibrils with high water absorbency and adsorption capacity for anionic dyes. *Soft Matter*, **2013**, 9, 2047	3.6	234
76	Flexible and Responsive Chiral Nematic Cellulose Nanocrystal/Poly(ethylene glycol) Composite Films with Uniform and Tunable Structural Color. *Advanced Materials*, **2017**, 29, 1701323	24	205
75	Grafting of cellulose fibers with poly(epsilon-caprolactone) and poly(L-lactic acid) via ring-opening polymerization. *Biomacromolecules*, **2006**, 7, 2178-85	6.9	182
74	Microstructure and nonisothermal cold crystallization of PLA composites based on silver nanoparticles and nanocrystalline cellulose. *Polymer Degradation and Stability*, **2012**, 97, 2027-2036	4.7	171
73	Wood Nanotechnology for Strong, Mesoporous, and Hydrophobic Biocomposites for Selective Separation of Oil/Water Mixtures. *ACS Nano*, **2018**, 12, 2222-2230	16.7	156
72	A transparent, hazy, and strong macroscopic ribbon of oriented cellulose nanofibrils bearing poly(ethylene glycol). *Advanced Materials*, **2015**, 27, 2070-6	24	154
71	Nanostructured biocomposites of high toughness wood cellulose nanofiber network in ductile hydroxyethylcellulose matrix. *Soft Matter*, **2011**, 7, 7342	3.6	140
70	Wood cellulose biocomposites with fibrous structures at micro- and nanoscale. *Composites Science and Technology*, **2011**, 71, 382-387	8.6	131

69	Electroactive nanofibrillated cellulose aerogel composites with tunable structural and electrochemical properties. *Journal of Materials Chemistry*, **2012**, 22, 19014		123
68	Activation of crystalline cellulose surfaces through the chemoenzymatic modification of xyloglucan. *Journal of the American Chemical Society*, **2004**, 126, 5715-21	16.4	109
67	Nanocomposites of bacterial cellulose nanofibers and chitin nanocrystals: fabrication, characterization and bactericidal activity. *Green Chemistry*, **2013**, 15, 3404	10	104
66	Cellulose nanocrystals/polyurethane nanocomposites. Study from the viewpoint of microphase separated structure. *Carbohydrate Polymers*, **2013**, 92, 751-7	10.3	103
65	Rheological properties of nanocellulose suspensions: effects of fibril/particle dimensions and surface characteristics. *Cellulose*, **2017**, 24, 2499-2510	5.5	99
64	Biocomposites from Natural Rubber: Synergistic Effects of Functionalized Cellulose Nanocrystals as Both Reinforcing and Cross-Linking Agents via Free-Radical Thiol-ene Chemistry. *ACS Applied Materials & Interfaces*, **2015**, 7, 16303-10	9.5	91
63	Xyloglucan in cellulose modification. *Cellulose*, **2007**, 14, 625-641	5.5	87
62	Tough nanopaper structures based on cellulose nanofibers and carbon nanotubes. *Composites Science and Technology*, **2013**, 87, 103-110	8.6	83
61	Self-Organization of Cellulose Nanocrystals Adsorbed with Xyloglucan Oligosaccharide□Poly(ethylene glycol)□Polystyrene Triblock Copolymer. *Macromolecules*, **2009**, 42, 5430-5432	5.5	80
60	Isocyanate-rich cellulose nanocrystals and their selective insertion in elastomeric polyurethane. *Composites Science and Technology*, **2011**, 71, 1953-1960	8.6	79
59	Nanostructured biocomposites based on bacterial cellulosic nanofibers compartmentalized by a soft hydroxyethylcellulose matrix coating. *Soft Matter*, **2009**, 5, 4124	3.6	78
58	A transparent hybrid of nanocrystalline cellulose and amorphous calcium carbonate nanoparticles. *Nanoscale*, **2011**, 3, 3563-6	7.7	74
57	Solution properties of antitumor sulfated derivative of alpha-(1-->3)-D-glucan from Ganoderma lucidum. *Bioscience, Biotechnology and Biochemistry*, **2000**, 64, 2172-8	2.1	74
56	Nanostructured membranes based on native chitin nanofibers prepared by mild process. *Carbohydrate Polymers*, **2014**, 112, 255-63	10.3	73
55	Use of Xyloglucan as a Molecular Anchor for the Elaboration of Polymers from Cellulose Surfaces: A General Route for the Design of Biocomposites. *Macromolecules*, **2005**, 38, 3547-3549	5.5	72
54	Triple Helix of □D-Glucan from Lentinus Edodes in 0.5 M NaCl Aqueous Solution Characterized by Light Scattering. *Polymer Journal*, **2001**, 33, 317-321	2.7	71
53	Bioinspired Interface Engineering for Moisture Resistance in Nacre-Mimetic Cellulose Nanofibrils/Clay Nanocomposites. *ACS Applied Materials & Interfaces*, **2017**, 9, 20169-20178	9.5	70
52	Water redispersible cellulose nanofibrils adsorbed with carboxymethyl cellulose. *Cellulose*, **2014**, 21, 4349-4358	5.5	65

51	Bioinspired and highly oriented clay nanocomposites with a xyloglucan biopolymer matrix: extending the range of mechanical and barrier properties. *Biomacromolecules*, **2013**, 14, 84-91	6.9	56
50	Topochemical acetylation of cellulose nanopaper structures for biocomposites: mechanisms for reduced water vapour sorption. *Cellulose*, **2014**, 21, 2773-2787	5.5	55
49	Synthesis of multifunctional cellulose nanocrystals for lectin recognition and bacterial imaging. *Biomacromolecules*, **2015**, 16, 1426-32	6.9	54
48	Friction between cellulose surfaces and effect of xyloglucan adsorption. *Biomacromolecules*, **2006**, 7, 2147-53	6.9	53
47	BIOREFINERY: Nanofibrillated cellulose for enhancement of strength in high-density paper structures. *Nordic Pulp and Paper Research Journal*, **2013**, 28, 182-189	1.1	52
46	Chitin synthases from Saprolegnia are involved in tip growth and represent a potential target for anti-oomycete drugs. *PLoS Pathogens*, **2010**, 6, e1001070	7.6	51
45	Miscibility, free volume behavior and properties of blends from cellulose acetate and castor oil-based polyurethane. *Polymer*, **2003**, 44, 1733-1739	3.9	50
44	Biodegradability of Regenerated Cellulose Films Coated with Polyurethane/Natural Polymers Interpenetrating Polymer Networks. *Industrial & Engineering Chemistry Research*, **1999**, 38, 4284-4289	3.9	50
43	Nanostructurally Controlled Hydrogel Based on Small-Diameter Native Chitin Nanofibers: Preparation, Structure, and Properties. *ChemSusChem*, **2016**, 9, 989-95	8.3	48
42	Transition from Triple Helix to Coil of Lentinan in Solution Measured by SEC, Viscometry, and 13C NMR. *Polymer Journal*, **2002**, 34, 443-449	2.7	47
41	In situ polymerization and characterization of elastomeric polyurethane-cellulose nanocrystal nanocomposites. Cell response evaluation. *Cellulose*, **2013**, 20, 1819-1828	5.5	46
40	Impact of microcrystalline cellulose material attributes: a case study on continuous twin screw granulation. *International Journal of Pharmaceutics*, **2015**, 478, 705-17	6.5	45
39	Surface modification of cellulose nanocrystals by grafting with poly(lactic acid). *Polymer International*, **2014**, 63, 1056-1062	3.3	45
38	Strong Surface Treatment Effects on Reinforcement Efficiency in Biocomposites Based on Cellulose Nanocrystals in Poly(vinyl acetate) Matrix. *Biomacromolecules*, **2015**, 16, 3916-24	6.9	44
37	Tamarind seed xyloglucan □a thermostable high-performance biopolymer from non-food feedstock. *Journal of Materials Chemistry*, **2010**, 20, 4321		42
36	Investigation of the graft length impact on the interfacial toughness in a cellulose/poly(□caprolactone) bilayer laminate. *Composites Science and Technology*, **2011**, 71, 9-12	8.6	39
35	Core-shell cellulose nanofibers for biocomposites - nanostructural effects in hydrated state. *Carbohydrate Polymers*, **2015**, 125, 92-102	10.3	38
34	Homogeneous hydroxyethylation of cellulose in NaOH/urea aqueous solution. *Polymer Bulletin*, **2005**, 53, 243-248	2.4	38

33	Glycan-functionalized fluorescent chitin nanocrystals for biorecognition applications. *Bioconjugate Chemistry*, **2014**, 25, 640-3	6.3	36
32	Engineered xyloglucan specificity in a carbohydrate-binding module. *Glycobiology*, **2006**, 16, 1171-80	5.8	36
31	Effects of molecular weight of nitrocellulose on structure and properties of polyurethane/nitrocellulose IPNs. *Journal of Polymer Science, Part B: Polymer Physics*, **1999**, 37, 1623-1631	2.6	35
30	Lytic polysaccharide monooxygenase (LPMO) mediated production of ultra-fine cellulose nanofibres from delignified softwood fibres. *Green Chemistry*, **2019**, 21, 5924-5933	10	35
29	The influence of surface chemical composition on the adsorption of xyloglucan to chemical and mechanical pulps. *Carbohydrate Polymers*, **2006**, 63, 449-458	10.3	30
28	Self-Densification of Highly Mesoporous Wood Structure into a Strong and Transparent Film. *Advanced Materials*, **2020**, 32, e2003653	24	30
27	High-Strength, High-Toughness Aligned Polymer-Based Nanocomposite Reinforced with Ultralow Weight Fraction of Functionalized Nanocellulose. *Biomacromolecules*, **2018**, 19, 4075-4083	6.9	29
26	Strong and Tough Chitin Film from Chitin Nanofibers Prepared by High Pressure Homogenization and Chitosan Addition. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 1692-1697	8.3	29
25	Top-down grafting of xyloglucan to gold monitored by QCM-D and AFM: enzymatic activity and interactions with cellulose. *Biomacromolecules*, **2008**, 9, 942-8	6.9	28
24	Regioselective modification of a xyloglucan hemicellulose for high-performance biopolymer barrier films. *Carbohydrate Polymers*, **2013**, 93, 466-72	10.3	27
23	Water-Resistant Film from Polyurethane/Nitrocellulose Coating to Regenerated Cellulose. *Industrial & Engineering Chemistry Research*, **1997**, 36, 2651-2656	3.9	27
22	Nanopaper membranes from chitinprotein composite nanofibersstructure and mechanical properties. *Journal of Applied Polymer Science*, **2014**, 131,	2.9	22
21	Reinforcement Effects from Nanodiamond in Cellulose Nanofibril Films. *Biomacromolecules*, **2018**, 19, 2423-2431	6.9	21
20	Proteomic Analysis of Plasmodesmata From Cell Suspension Cultures in Relation With Callose Biosynthesis. *Frontiers in Plant Science*, **2018**, 9, 1681	6.2	21
19	Enhancing strength and toughness of cellulose nanofibril network structures with an adhesive peptide. *Carbohydrate Polymers*, **2018**, 181, 256-263	10.3	18
18	Xyloglucan and xyloglucan endo-transglycosylases (XET): Tools for ex vivo cellulose surface modification. *Biocatalysis and Biotransformation*, **2006**, 24, 107-120	2.5	14
17	Well-dispersed polyurethane/cellulose nanocrystal nanocomposites synthesized by a solvent-free procedure in bulk. *Polymer Composites*, **2019**, 40, E456	3	14
16	Different types of microfibrillated cellulose as filler materials in polysodium acrylate superabsorbents. *Chinese Journal of Polymer Science (English Edition)*, **2011**, 29, 407-413	3.5	12

15	Surface Charges Control the Structure and Properties of Layered Nanocomposite of Cellulose Nanofibrils and Clay Platelets. *ACS Applied Materials & Interfaces*, **2021**, 13, 4463-4472	9.5	12
14	Phase transition of thermosensitive amphiphilic cellulose esters bearing olig(oxyethylene)s. *Polymer Bulletin*, **2000**, 45, 381-388	2.4	10
13	The conversion of nanocellulose into solvent-free nanoscale liquid crystals by attaching long side-arms for multi-responsive optical materials. *Journal of Materials Chemistry C*, **2020**, 8, 11022-11031	7.1	9
12	Synthesis and properties of O-2-[2-(2-methoxyethoxy)ethoxy]acetyl cellulose. *Journal of Polymer Science Part A*, **2001**, 39, 376-382	2.5	9
11	Rhamnogalacturonan-I Based Microcapsules for Targeted Drug Release. *PLoS ONE*, **2016**, 11, e0168050	3.7	9
10	Strong Foam-like Composites from Highly Mesoporous Wood and Metal-Organic Frameworks for Efficient CO Capture. *ACS Applied Materials & Interfaces*, **2021**,	9.5	8
9	Stronger cellulose microfibril network structure through the expression of cellulose-binding modules in plant primary cell walls. *Cellulose*, **2019**, 26, 3083-3094	5.5	7
8	Structure and Self-Assembly of Lytic Polysaccharide Monooxygenase-Oxidized Cellulose Nanocrystals. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 11331-11341	8.3	6
7	High strength and low swelling composite hydrogels from gelatin and delignified wood. *Scientific Reports*, **2020**, 10, 17842	4.9	4
6	Preparation and Viscoelastic Properties of Composite Fibres Containing Cellulose Nanofibrils: Formation of a Coherent Fibrillar Network. *Journal of Nanomaterials*, **2016**, 2016, 1-10	3.2	4
5	Strong, transparent, and thermochromic composite hydrogel from wood derived highly mesoporous cellulose network and PNIPAM. *Composites Part A: Applied Science and Manufacturing*, **2022**, 154, 106757	8.4	3
4	Assembly of AIEgen-based Fluorescent Metal-Organic Framework Nanosheets and Seaweed Cellulose Nanofibrils for Humidity Sensing and UV-shielding.. *Advanced Materials*, **2022**, e2201470	24	3
3	Nanocellulose-Based Green Nanocomposite Materials **2016**, 118-148		1
2	Surface Functionalization of Spruce-Derived Cellulose Scaffold for Glycoprotein Separation. *Advanced Materials Interfaces*, **2021**, 8, 2100787	4.6	1
1	Surface Functionalization of Spruce-Derived Cellulose Scaffold for Glycoprotein Separation (Adv. Mater. Interfaces 19/2021). *Advanced Materials Interfaces*, **2021**, 8, 2170106	4.6	