Cheng Zhong

List of Publications by Year
in descending order

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Version: 2024-02-01

77 papers	3,397 citations	109137 35 h-index	149479 56 g-index
80 all docs	80 docs citations	80 times ranked	3960 citing authors

#	Article	IF	Citations
1	Biosynthesis of spherical Fe3O4/bacterial cellulose nanocomposites as adsorbents for heavy metal ions. Carbohydrate Polymers, 2011, 86, 1558-1564.	5.1	173
2	Optimization of enzymatic hydrolysis and ethanol fermentation from AFEX-treated rice straw. Applied Microbiology and Biotechnology, 2009, 84, 667-676.	1.7	157
3	Development of bacterial cellulose/chitosan based semi-interpenetrating hydrogels with improved mechanical and antibacterial properties. International Journal of Biological Macromolecules, 2019, 122, 380-387.	3.6	156
4	Development and antibacterial activities of bacterial cellulose/graphene oxide-CuO nanocomposite films. Carbohydrate Polymers, 2020, 229, 115456.	5.1	143
5	Synthesis and characterization of antibacterial carboxymethyl Chitosan/ZnO nanocomposite hydrogels. International Journal of Biological Macromolecules, 2016, 88, 273-279.	3.6	141
6	Recent Advances in Antimicrobial Hydrogels Containing Metal Ions and Metals/Metal Oxide Nanoparticles. Polymers, 2017, 9, 636.	2.0	124
7	Facile fabrication of moldable antibacterial carboxymethyl chitosan supramolecular hydrogels cross-linked by metal ions complexation. Carbohydrate Polymers, 2017, 165, 455-461.	5.1	104
8	Metabolic flux analysis of Gluconacetobacter xylinus for bacterial cellulose production. Applied Microbiology and Biotechnology, 2013, 97, 6189-6199.	1.7	103
9	Nanocomposite hydrogels as multifunctional systems for biomedical applications: Current state and perspectives. Composites Part B: Engineering, 2020, 200, 108208.	5.9	101
10	A facile construction of bacterial cellulose/ZnO nanocomposite films and their photocatalytic and antibacterial properties. International Journal of Biological Macromolecules, 2019, 132, 692-700.	3.6	100
11	Preparation, characterization and antibacterial applications of carboxymethyl chitosan/CuO nanocomposite hydrogels. International Journal of Biological Macromolecules, 2017, 101, 690-695.	3.6	97
12	Applications of cellulose and chitin/chitosan derivatives and composites as antibacterial materials: current state and perspectives. Applied Microbiology and Biotechnology, 2019, 103, 1989-2006.	1.7	97
13	Injectable self-healing carboxymethyl chitosan-zinc supramolecular hydrogels and their antibacterial activity. International Journal of Biological Macromolecules, 2018, 114, 1233-1239.	3.6	79
14	Preparation and characterization of a novel bacterial cellulose/chitosan bio-hydrogel. Nanomaterials and Nanotechnology, 2017, 7, 184798041770717.	1.2	71
15	Aggregation-induced emission-active amino acid/berberine hydrogels with enhanced photodynamic antibacterial and anti-biofilm activity. Chemical Engineering Journal, 2021, 413, 127542.	6.6	71
16	Sustainable, superhydrophobic membranes based on bacterial cellulose for gravity-driven oil/water separation. Carbohydrate Polymers, 2021, 253, 117220.	5.1	70
17	Designing of bacterial cellulose-based superhydrophilic/underwater superoleophobic membrane for oil/water separation. Carbohydrate Polymers, 2021, 257, 117611.	5.1	70
18	Alkali-Based Pretreatment-Facilitated Lignin Valorization: A Review. Industrial & Engineering Chemistry Research, 2020, 59, 16923-16938.	1.8	70

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19	Surfactant-free emulsions stabilized by tempo-oxidized bacterial cellulose. Carbohydrate Polymers, 2016, 151, 907-915.	5.1	69
20	Metabolomic Analysis of Antimicrobial Mechanisms of Îµ-Poly-<scp>l</scp>-lysine on Saccharomyces cerevisiae. Journal of Agricultural and Food Chemistry, 2014, 62, 4454-4465.	2.4	67
21	Fabrication of Bacterial Cellulose-Based Dressings for Promoting Infected Wound Healing. ACS Applied Materials & Interfaces, 2021, 13, 32716-32728.	4.0	65
22	Preparation and characterization of a photocatalytic antibacterial material: Graphene oxide/TiO2/bacterial cellulose nanocomposite. Carbohydrate Polymers, 2017, 174, 1078-1086.	5.1	64
23	Bacterial cellulose and its potential for biomedical applications. Biotechnology Advances, 2021, 53, 107856.	6.0	61
24	Rheological behaviors of Pickering emulsions stabilized by TEMPO-oxidized bacterial cellulose. Carbohydrate Polymers, 2019, 215, 263-271.	5.1	58
25	Conversion of lignocellulosic agave residues into liquid biofuels using an AFEXâ„¢-based biorefinery. Biotechnology for Biofuels, 2018, 11, 7.	6.2	57
26	Enhanced bacterial cellulose production by Gluconacetobacter xylinus via expression of Vitreoscilla hemoglobin and oxygen tension regulation. Applied Microbiology and Biotechnology, 2018, 102, 1155-1165.	1.7	55
27	Complete genome analysis of Gluconacetobacter xylinus CGMCC 2955 for elucidating bacterial cellulose biosynthesis and metabolic regulation. Scientific Reports, 2018, 8, 6266.	1.6	54
28	Effects of Feed to Inoculum Ratio, Co-digestion, and Pretreatment on Biogas Production from Anaerobic Digestion of Cotton Stalk. Energy & Fuels, 2014, 28, 3157-3166.	2.5	51
29	Cellulose-based special wetting materials for oil/water separation: A review. International Journal of Biological Macromolecules, 2021, 185, 890-906.	3.6	47
30	Continuous production of antibacterial carboxymethyl chitosan-zinc supramolecular hydrogel fiber using a double-syringe injection device. International Journal of Biological Macromolecules, 2020, 156, 252-261.	3.6	46
31	Improvement of antimicrobial activity of graphene oxide/bacterial cellulose nanocomposites through the electrostatic modification. Carbohydrate Polymers, 2016, 136, 1152-1160.	5.1	45
32	Biofuels in China: past, present and future. Biofuels, Bioproducts and Biorefining, 2010, 4, 326-342.	1.9	39
33	Facile synthesis of bacterial cellulose and polyethyleneimine based hybrid hydrogels for antibacterial applications. Cellulose, 2020, 27, 369-383.	2.4	39
34	Structure-Dependent Antibacterial Activity of Amino Acid-Based Supramolecular Hydrogels. Colloids and Surfaces B: Biointerfaces, 2020, 193, 111099.	2.5	39
35	Reusable ternary PVA films containing bacterial cellulose fibers and Îµ-polylysine with improved mechanical and antibacterial properties. Colloids and Surfaces B: Biointerfaces, 2019, 183, 110486.	2.5	38
36	Metabolomic profiling coupled with metabolic network reveals differences in Gluconacetobacter xylinus from static and agitated cultures. Biochemical Engineering Journal, 2015, 101, 85-98.	1.8	33

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37	Fractionation of corn stover by two-step pretreatment for production of ethanol, furfural, and lignin. Energy, 2020, 195, 117076.	4.5	33
38	Tailoring bacterial cellulose structure through CRISPR interferenceâ€mediated downregulation of galU in Komagataeibacter xylinus CGMCC 2955. Biotechnology and Bioengineering, 2020, 117, 2165-2176.	1.7	30
39	Revealing Differences in Metabolic Flux Distributions between a Mutant Strain and Its Parent Strain Gluconacetobacter xylinus CGMCC 2955. PLoS ONE, 2014, 9, e98772.	1.1	29
40	Effects of Ionic Liquid 1-Ethyl-3-Methylimidazolium Diethylphosphate on Cellulase Produced byPaenibacillussp. LLZ1. ACS Sustainable Chemistry and Engineering, 2016, 4, 4922-4926.	3.2	28
41	Facile Incorporation of Silver Nanoparticles into Quaternized Poly(2-(Dimethylamino)Ethyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5 Engineering, 2017, 302, 1700069.	1.7	27
42	Ethylenediamine pretreatment of corn stover facilitates high gravity fermentation with low enzyme loading. Bioresource Technology, 2018, 267, 227-234.	4.8	26
43	Predictive analysis of beer quality by correlating sensory evaluation with higher alcohol and ester production using multivariate statistics methods. Food Chemistry, 2014, 161, 376-382.	4.2	25
44	Enhanced Bioconversion of Cellobiose by Industrial Saccharomyces cerevisiae Used for Cellulose Utilization. Frontiers in Microbiology, 2016, 7, 241.	1.5	25
45	Preparation and characterization of antibacterial bacterial cellulose/chitosan hydrogels impregnated with silver sulfadiazine. International Journal of Biological Macromolecules, 2021, 189, 483-493.	3.6	22
46	Bacterial cellulose/hyaluronic acid composite hydrogels with improved viscoelastic properties and good thermodynamic stability. Plastics, Rubber and Composites, 2018, 47, 165-175.	0.9	19
47	Bacterial cellulose production from ethylenediamine pretreated Caragana korshinskii Kom. Industrial Crops and Products, 2021, 164, 113340.	2.5	19
48	Fabrication of bacterial cellulose with TiO2-ZnO nanocomposites as a multifunctional membrane for water remediation. Journal of Colloid and Interface Science, 2022, 620, 1-13.	5.0	18
49	Enhancing Medium-Chain Fatty Acid Ethyl Ester Production During Beer Fermentation Through EEB1 and ETR1 Overexpression in Saccharomyces pastorianus. Journal of Agricultural and Food Chemistry, 2019, 67, 5607-5613.	2.4	16
50	Self-assembly of peptide nanofibers with chirality-encoded antimicrobial activity. Journal of Colloid and Interface Science, 2022, 622, 135-146.	5.0	16
51	A Lambda Red and FLP/FRT-Mediated Site-Specific Recombination System in Komagataeibacter xylinus and Its Application to Enhance the Productivity of Bacterial Cellulose. ACS Synthetic Biology, 2020, 9, 3171-3180.	1.9	14
52	Fabrication of amino acid-based supramolecular hydrogel with silver ions for improved antibacterial properties. Materials Letters, 2021, 300, 130161.	1.3	14
53	Metabolic Investigation in Gluconacetobacter xylinus and Its Bacterial Cellulose Production under a Direct Current Electric Field. Frontiers in Microbiology, 2016, 7, 331.	1.5	13
54	Chemical Characterization and Nutritional Analysis of Protein Isolates from Caragana korshinskii Kom.. Journal of Agricultural and Food Chemistry, 2014, 62, 3217-3222.	2.4	12

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55	Oriented bacterial cellulose-glass fiber nanocomposites with enhanced tensile strength through electric field. Fibers and Polymers, 2017, 18, 1408-1412.	1.1	12
56	A self-assembled amino acid-based hydrogel with broad-spectrum antibacterial activity. Journal of Materials Science, 2021, 56, 7626-7636.	1.7	12
57	Green synthesis of acetylated maize starch in different imidazolium carboxylate and choline carboxylate ionic liquids. Carbohydrate Polymers, 2022, 288, 119353.	5.1	12
58	Bioconversion of lignocellulosic biomass into bacterial nanocellulose: challenges and perspectives. Green Chemical Engineering, 2023, 4, 160-172.	3.3	12
59	Identification of Quorum-Sensing Molecules of N-Acyl-Homoserine Lactone in Gluconacetobacter Strains by Liquid Chromatography-Tandem Mass Spectrometry. Molecules, 2019, 24, 2694.	1.7	11
60	Study on community structure of microbial consortium for the degradation of viscose fiber wastewater. Bioresources and Bioprocessing, 2017, 4, 31.	2.0	10
61	Dissolution of Cellulose in Ionic Liquidâ€“DMSO Mixtures: Roles of DMSO/IL Ratio and the Cation Alkyl Chain Length. ACS Omega, 2021, 6, 27225-27232.	1.6	10
62	Structural characterization and immunomodulatory activity of exopolysaccharide from Aureobasidium pullulans CGMCC 23063. Carbohydrate Polymers, 2022, 288, 119366.	5.1	10
63	Permeation of Silver Sulfadiazine Into TEMPO-Oxidized Bacterial Cellulose as an Antibacterial Agent. Frontiers in Bioengineering and Biotechnology, 2020, 8, 616467.	2.0	9
64	The production of bacterial cellulose in Gluconacetobacter xylinus regulated by luxR overexpression of quorum sensing system. Applied Microbiology and Biotechnology, 2021, 105, 7801-7811.	1.7	9
65	In situ regulation of bacterial cellulose networks by starch from different sources or amylose/amylopectin content during fermentation. International Journal of Biological Macromolecules, 2022, 195, 59-66.	3.6	8
66	TEMPO-Mediated Oxidation Promotes Cellulose Dissolution in a Zincateâ€“NaOH System at Suprazero Temperatures. ACS Sustainable Chemistry and Engineering, 2022, 10, 7374-7384.	3.2	8
67	Heterochiral peptide-based biocompatible and injectable supramolecular hydrogel with antibacterial activity. Journal of Materials Science, 2022, 57, 5198-5209.	1.7	7
68	The Effect of Growth, Migration and Bacterial Cellulose Synthesis of Gluconacetobacter xylinus in Presence of Direct Current Electric Field Condition. Advanced Materials Research, 2012, 550-553, 1108-1113.	0.3	5
69	Intracellular metabolite profiling of industrial yeast and the synthesis of flavour compounds in beer. Journal of the Institute of Brewing, 2017, 123, 328-336.	0.8	5
70	Lysine Methylation Modulates the Interaction of Archaeal Chromatin Protein Cren7 With DNA. Frontiers in Microbiology, 2022, 13, 837737.	1.5	5
71	Integrating kinetics with thermodynamics to study the alkaline extraction of protein from Caragana korshinskii Kom. Biotechnology and Bioengineering, 2014, 111, 1801-1808.	1.7	4
72	Preparation and Characterization of Acylcaramel. Journal of Agricultural and Food Chemistry, 2019, 67, 5614-5620.	2.4	3

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73	Production and applications of bacterial cellulose. , 2021, , 359-390.		2
74	Biochemical engineering in China. Reviews in Chemical Engineering, 2019, 35, 929-993.	2.3	1
75	Whole-genome sequencing exploitation analysis of non-Saccharomyces yeast Nakazawaea ishiwadae GDMCC 60786 and its physiological characterizations. Food Bioscience, 2021, 41, 100982.	2.0	1
76	Developing a High Efficient Process Integrating Protein Extraction with Cellulosic Ethanol Production from Caragana korshinskii Kom. Advanced Materials Research, 2012, 518-523, 5545-5549.	0.3	0
77	Monosaccharide removal and effects of Komagataeibacter xylinus fermentation on antioxidant capacity and flavor profile of Chinese wolfberry juice. Journal of Food Processing and Preservation, 2021, 45, e15800.	0.9	0