Jeffrey M Catchmark

List of Publications by Year
in descending order

70 papers	3,242 citations	126708 33 h-index	149479 56 g-index
71 all docs	71 docs citations	71 times ranked	3659 citing authors

#	Article	IF	Citations
1	Dual-charge bacterial cellulose as a potential 3D printable material for soft tissue engineering. Composites Part B: Engineering, 2022, 231, 109598.	5.9	19
2	Effects of pullulan additive and co-culture of Aureobasidium pullulans on bacterial cellulose produced by Komagataeibacter hansenii. Bioprocess and Biosystems Engineering, 2022, 45, 573-587.	1.7	7
3	Shear-induced unidirectional deposition of bacterial cellulose microfibrils using rising bubble stream cultivation. Carbohydrate Polymers, 2021, 255, 117328.	5.1	7
4	A covalently cross-linked hyaluronic acid/bacterial cellulose composite hydrogel for potential biological applications. Carbohydrate Polymers, 2021, 252, 117123.	5.1	53
5	Synthesis of cationic bacterial cellulose using a templated metal phenolic network for antibacterial applications. Cellulose, 2021, 28, 9283-9296.	2.4	9
6	Structural and physico-chemical characterization of industrial hemp hurd: Impacts of chemical pretreatments and mechanical refining. Industrial Crops and Products, 2021, 171, 113818.	2.5	15
7	Oriented 2D metal organic framework coating on bacterial cellulose for nitrobenzene removal from water by filtration. Separation and Purification Technology, 2021, 276, 119366.	3.9	10
8	Co-culture fermentation on the production of bacterial cellulose nanocomposite produced by Komagataeibacter hansenii. Carbohydrate Polymer Technologies and Applications, 2021, 2, 100028.	1.6	10
9	Agri-food firms, universities, and corporate social responsibility: what's in the public interest?. Renewable Agriculture and Food Systems, 2020, 35, 158-168.	0.8	6
10	Bacterial cellulose/hyaluronic acid nanocomposites production through co-culturing Gluconacetobacter hansenii and Lactococcus lactis under different initial pH values of fermentation media. Cellulose, 2020, 27, 2529-2540.	2.4	14
11	BcsAB synthesized cellulose on nickel surface: polymerization of monolignols during cellulose synthesis alters cellulose morphology. Cellulose, 2020, 27, 5629-5639.	2.4	3
12	Biodegradable Starch/Chitosan Foam via Microwave Assisted Preparation: Morphology and Performance Properties. Polymers, 2020, 12, 2612.	2.0	17
13	Study of a Novel Co-culturing Fermentation for Bacterial Cellulose Nanocomposite Production. , 2020, , .		0
14	Improved cellulose X-ray diffraction analysis using Fourier series modeling. Cellulose, 2020, 27, 5563-5579.	2.4	132
15	Sustainable starch-based barrier coatings for packaging applications. Food Hydrocolloids, 2020, 103, 105696.	5.6	50
16	Bacterial cellulose/hyaluronic acid nanocomposites production through co-culturing Gluconacetobacter hansenii and Lactococcus lactis in a two-vessel circulating system. Bioresource Technology, 2019, 290, 121715.	4.8	26
17	The formation of Gluconacetobacter xylinum cellulose under the influence of the dye brilliant yellow. Cellulose, 2019, 26, 9373-9386.	2.4	2
18	Enhanced mechanical properties of bacterial cellulose nanocomposites produced by co-culturing Gluconacetobacter hansenii and Escherichia coli under static conditions. Carbohydrate Polymers, 2019, 219, 12-20.	5.1	49

#	Article	IF	Citations
19	Improved eco-friendly barrier materials based on crystalline nanocellulose/chitosan/carboxymethyl cellulose polyelectrolyte complexes. Food Hydrocolloids, 2018, 80, 195-205.	5.6	84
20	Effects of exopolysaccharides from Escherichia coli ATCC 35860 on the mechanical properties of bacterial cellulose nanocomposites. Cellulose, 2018, 25, 2273-2287.	2.4	15
21	Sustainable Development of Polysaccharide Polyelectrolyte Complexes as Eco-Friendly Barrier Materials for Packaging Applications. ACS Symposium Series, 2018, , 109-123.	0.5	6
22	The impact of antibiotics on bacterial cellulose in vivo. Cellulose, 2017, 24, 1261-1285.	2.4	6
23	Impact of plant matrix polysaccharides on cellulose produced by surface-tethered cellulose synthases. Carbohydrate Polymers, 2017, 162, 93-99.	5.1	11
24	Enhanced dispersion and interface compatibilization of crystalline nanocellulose in polylactide by surfactant adsorption. Cellulose, 2017, 24, 4845-4860.	2.4	36
25	The influences of added polysaccharides on the properties of bacterial crystalline nanocellulose. Nanoscale, 2017, 9, 15144-15158.	2.8	50
26	Crystalline nanocellulose/lauric arginate complexes. Carbohydrate Polymers, 2017, 175, 320-329.	5.1	31
27	Sustainable barrier materials based on polysaccharide polyelectrolyte complexes. Green Chemistry, 2017, 19, 4080-4092.	4.6	32
28	Structural properties of starch-chitosan-gelatin foams and the impact of gelatin on MC3T3 mouse osteoblast cell viability. Journal of Biological Engineering, 2017, 11, 43.	2.0	3
29	Mechanical and structural property analysis of bacterial cellulose composites. Carbohydrate Polymers, 2016, 144, 447-453.	5.1	126
30	Effect of cellulose crystallinity on bacterial cellulose assembly. Cellulose, 2016, 23, 3417-3427.	2.4	59
31	Cellulose Microfibril Formation by Surface-Tethered Cellulose Synthase Enzymes. ACS Nano, 2016, 10, 1896-1907.	7.3	28
32	Bioabsorbable cellulose composites prepared by an improved mineral-binding process for bone defect repair. Journal of Materials Chemistry B, 2016, 4, 1235-1246.	2.9	47
33	Isolation and Characterization of Two Cellulose Morphology Mutants of Gluconacetobacter hansenii ATCC23769 Producing Cellulose with Lower Crystallinity. PLoS ONE, 2015, 10, e0119504.	1.1	19
34	Cellulose produced by Gluconacetobacter xylinus strains ATCC 53524 and ATCC 23768: Pellicle formation, post-synthesis aggregation and fiber density. Carbohydrate Polymers, 2015, 133, 270-276.	5.1	58
35	Characterization of cellulose and other exopolysaccharides produced from Gluconacetobacter strains. Carbohydrate Polymers, 2015, 115, 663-669.	5.1	74
36	Characterization of water-soluble exopolysaccharides from Gluconacetobacter xylinus and their impacts on bacterial cellulose crystallization and ribbon assembly. Cellulose, 2014, 21, 3965-3978.	2.4	46

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37	Engineering of porous bacterial cellulose toward human fibroblasts ingrowth for tissue engineering. Journal of Materials Research, 2014, 29, 2682-2693.	1.2	43
38	Structure characterization of native cellulose during dehydration and rehydration. Cellulose, 2014, 21, 3951-3963.	2.4	48
39	Roles of xyloglucan and pectin on the mechanical properties of bacterial cellulose composite films. Cellulose, 2014, 21, 275-289.	2.4	47
40	Insoluble starch composite foams produced through microwave expansion. Carbohydrate Polymers, 2014, 111, 864-869.	5.1	9
41	The impact of cellulose structure on binding interactions with hemicellulose and pectin. Cellulose, 2013, 20, 1613-1627.	2.4	62
42	Biosynthesis, production and applications of bacterial cellulose. Cellulose, 2013, 20, 2191-2219.	2.4	380
43	Factors Impacting the Formation of Sphere-Like Bacterial Cellulose Particles and Their Biocompatibility for Human Osteoblast Growth. Biomacromolecules, 2013, 14, 3444-3452.	2.6	75
44	Binding Specificity and Thermodynamics of Cellulose-Binding Modules from Trichoderma reesei Cel7A and Cel6A. Biomacromolecules, 2013, 14, 1268-1277.	2.6	54
45	Quantification of cellulose nanowhiskers sulfate esterification levels. Carbohydrate Polymers, 2013, 92, 1809-1816.	5.1	97
46	Polylactic acid composites incorporating casein functionalized cellulose nanowhiskers. Journal of Biological Engineering, 2013, 7, 31.	2.0	43
47	Impact of brilliant yellow on the synthesis and structure change of <i>Gluconacetobacter xylinus </i>cellulose. , 2013, , .		0
48	The adsorption of xyloglucan and pectin to model crystalline and amorphous cellulose substrates. , 2013, , .		0
49	Microtubule asters as templates for nanomaterials assembly. Journal of Biological Engineering, 2012, 6, 23.	2.0	8
50	Surface area and porosity of acid hydrolyzed cellulose nanowhiskers and cellulose produced by Gluconacetobacter xylinus. Carbohydrate Polymers, 2012, 87, 1026-1037.	5.1	128
51	Impact of hemicelluloses and pectin on sphere-like bacterial cellulose assembly. Carbohydrate Polymers, 2012, 88, 547-557.	5.1	93
52	Effects of CMC Addition on Bacterial Cellulose Production in a Biofilm Reactor and Its Paper Sheets Analysis. Biomacromolecules, 2011, 12, 730-736.	2.6	99
53	Biochemical localization of a protein involved in synthesis of Gluconacetobacter hansenii cellulose. Cellulose, 2011, 18, 739-747.	2.4	20
54	A catalytically powered electrokinetic lens: toward channelless microfluidics. Microfluidics and Nanofluidics, 2011, 10, 1147-1151.	1.0	5

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55	Integration of cellulases into bacterial cellulose: Toward bioabsorbable cellulose composites. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 97B, 114-123.	1.6	69
56	In vitro biodegradability and mechanical properties of bioabsorbable bacterial cellulose incorporating cellulases. Acta Biomaterialia, 2011, 7, 2835-2845.	4.1	104
57	Effects of plastic composite support and pH profiles on pullulan production in a biofilm reactor. Applied Microbiology and Biotechnology, 2010, 86, 853-861.	1.7	61
58	Advances in biofilm reactors for production of value-added products. Applied Microbiology and Biotechnology, 2010, 87, 445-456.	1.7	121
59	Comparison of cellulose production of two different Gluconacetobacter xylinus strains using both glucose and galactose as carbon sources. , 2010, , .		0
60	Formation and Characterization of Spherelike Bacterial Cellulose Particles Produced by Acetobacter xylinum JCM 9730 Strain. Biomacromolecules, 2010, 11, 1727-1734.	2.6	113
61	Biological Sorting and Fluidic Devices Based on Catalytically Generated Electrokinetic Phenomena. , 2009, , .		0
62	Nanoscale patterning of kinesin motor proteins and its role in guiding microtubule motility. Biomedical Microdevices, 2009, 11, 313-322.	1.4	9
63	Effect of different additives on bacterial cellulose production by Acetobacter xylinum and analysis of material property. Cellulose, 2009, 16, 1033-1045.	2.4	174
64	Surface-Bound Casein Modulates the Adsorption and Activity of Kinesin onÂSiO2 Surfaces. Biophysical Journal, 2009, 96, 3305-3318.	0.2	49
65	The role of casein in supporting the operation of surface bound kinesin. Journal of Biological Engineering, 2008, 2, 14.	2.0	20
66	Control of Catalytically Generated Electroosmotic Fluid Flow through Surface Zeta Potential Engineering. Journal of Physical Chemistry C, 2007, 111, 11959-11964.	1.5	18
67	Cantileverâ€Based Chemical Sensors for Detecting Catalytically Produced Reactions and Motility Forces Generated via Electrokinetic Phenomena. Small, 2007, 3, 1934-1940.	5.2	5
68	Direct sub-100-nm patterning of an organic low-k dielectric for electrical and optical interconnects. Journal of Electronic Materials, 2005, 34, L12-L15.	1.0	1
69	Directed Rotational Motion of Microscale Objects Using Interfacial Tension Gradients Continually Generated via Catalytic Reactions. Small, 2005, 1, 202-206.	5.2	127
70	Development of Biocompatible MEMS Wireless Capacitive Pressure Sensor. Journal of Microelectronics and Electronic Packaging, 2005, 2, 287-296.	0.8	0