Mazhar Ul-Islam

List of Publications by Year
in descending order

105 papers	5,864 citations	61984 43 h-index	76900 74 g-index
109 all docs	109 docs citations	109 times ranked	4684 citing authors

#	Article	IF	Citations
1	Overview of bacterial cellulose composites: A multipurpose advanced material. Carbohydrate Polymers, 2013, 98, 1585-1598.	10.2	538
2	Water holding and release properties of bacterial cellulose obtained by in situ and ex situ modification. Carbohydrate Polymers, 2012, 88, 596-603.	10.2	326
3	Bacterial cellulose-zinc oxide nanocomposites as a novel dressing system for burn wounds. Carbohydrate Polymers, 2017, 164, 214-221.	10.2	265
4	Strategies for cost-effective and enhanced production of bacterial cellulose. International Journal of Biological Macromolecules, 2017, 102, 1166-1173.	7.5	192
5	Synthesis of regenerated bacterial cellulose-zinc oxide nanocomposite films for biomedical applications. Cellulose, 2014, 21, 433-447.	4.9	187
6	Nanoreinforced bacterial celluloseâ€“montmorillonite composites for biomedical applications. Carbohydrate Polymers, 2012, 89, 1189-1197.	10.2	178
7	Chitosan-coated cotton cloth supported copper nanoparticles for toxic dye reduction. International Journal of Biological Macromolecules, 2018, 111, 832-838.	7.5	167
8	Bacterial cellulose-MMTs nanoreinforced composite films: novel wound dressing material with antibacterial properties. Cellulose, 2013, 20, 589-596.	4.9	149
9	Bacterial cellulose-titanium dioxide nanocomposites: nanostructural characteristics, antibacterial mechanism, and biocompatibility. Cellulose, 2015, 22, 565-579.	4.9	143
10	Adsorption and photocatalyst assisted dye removal and bactericidal performance of ZnO/chitosan coating layer. International Journal of Biological Macromolecules, 2015, 81, 584-590.	7.5	137
11	Innovative production of bio-cellulose using a cell-free system derived from a single cell line. Carbohydrate Polymers, 2015, 132, 286-294.	10.2	136
12	Bacterial celluloseâ€“TiO₂nanocomposites promote healing and tissue regeneration in burn mice model. RSC Advances, 2017, 7, 47662-47668.	3.6	131
13	Effect of chitosan penetration on physico-chemical and mechanical properties of bacterial cellulose. Korean Journal of Chemical Engineering, 2011, 28, 1736-1743.	2.7	126
14	Bacterial cellulose composites: Synthetic strategies and multiple applications in bioâ€medical and electroâ€conductive fields. Biotechnology Journal, 2015, 10, 1847-1861.	3.5	124
15	Structural and physico-mechanical characterization of bio-cellulose produced by a cell-free system. Carbohydrate Polymers, 2016, 136, 908-916.	10.2	124
16	Plant extract-loaded bacterial cellulose composite membrane for potential biomedical applications. Journal of Bioresources and Bioproducts, 2021, 6, 26-32.	20.5	118
17	Biobased materials for active food packaging: A review. Food Hydrocolloids, 2022, 125, 107419.	10.7	110
18	Development of modified montmorillonite-bacterial cellulose nanocomposites as a novel substitute for burn skin and tissue regeneration. Carbohydrate Polymers, 2019, 206, 548-556.	10.2	102

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19	Production of bacterial cellulose from alternative cheap and waste resources: A step for cost reduction with positive environmental aspects. Korean Journal of Chemical Engineering, 2020, 37, 925-937.	2.7	98
20	Preparation and structural characterization of surface modified microporous bacterial cellulose scaffolds: A potential material for skin regeneration applications in vitro and in vivo. International Journal of Biological Macromolecules, 2018, 117, 1200-1210.	7.5	96
21	Synthesis and applications of fungal mycelium-based advanced functional materials. Journal of Bioresources and Bioproducts, 2021, 6, 1-10.	20.5	95
22	Bacterial celluloseâ€“poly(3,4-ethylenedioxythiophene)â€“poly(styrenesulfonate) composites for optoelectronic applications. Carbohydrate Polymers, 2015, 127, 86-93.	10.2	89
23	Self-assembly of bio-cellulose nanofibrils through intermediate phase in a cell-free enzyme system. Biochemical Engineering Journal, 2019, 142, 135-144.	3.6	80
24	Thermal decomposition of metal complex precursor as route to the synthesis of Co3O4 nanoparticles: Antibacterial activity and mechanism. Journal of Alloys and Compounds, 2017, 704, 296-302.	5.5	77
25	Development of three-dimensional bacterial cellulose/chitosan scaffolds: Analysis of cell-scaffold interaction for potential application in the diagnosis of ovarian cancer. International Journal of Biological Macromolecules, 2019, 137, 1050-1059.	7.5	76
26	Comparative study of plant and bacterial cellulose pellicles regenerated from dissolved states. International Journal of Biological Macromolecules, 2019, 137, 247-252.	7.5	76
27	Bacterial cellulose: Molecular regulation of biosynthesis, supramolecular assembly, and tailored structural and functional properties. Progress in Materials Science, 2022, 129, 100972.	32.8	71
28	Three-dimensionally microporous and highly biocompatible bacterial celluloseâ€“gelatin composite scaffolds for tissue engineering applications. RSC Advances, 2016, 6, 110840-110849.	3.6	67
29	Recent Advancement in Cellulose based Nanocomposite for Addressing Environmental Challenges. Recent Patents on Nanotechnology, 2016, 10, 169-180.	1.3	63
30	In situ synthesis of a bio-cellulose/titanium dioxide nanocomposite by using a cell-free system. RSC Advances, 2016, 6, 22424-22435.	3.6	62
31	Ex situ development and characterization of green antibacterial bacterial cellulose-based composites for potential biomedical applications. Advanced Composites and Hybrid Materials, 2022, 5, 307-321.	21.1	62
32	Effect of post-synthetic processing conditions on structural variations and applications of bacterial cellulose. Cellulose, 2013, 20, 253-263.	4.9	61
33	Effects of glucuronic acid oligomers on the production, structure and properties of bacterial cellulose. Carbohydrate Polymers, 2013, 92, 360-366.	10.2	60
34	Bacterial cellulose production from a single sugar Î±-linked glucuronic acid-based oligosaccharide. Process Biochemistry, 2011, 46, 1717-1723.	3.7	57
35	Metabolic engineering of synthetic cell-free systems: Strategies and applications. Biochemical Engineering Journal, 2016, 105, 391-405.	3.6	56
36	Microwave Assisted Synthesis and Carboxymethyl Cellulose Stabilized Copper Nanoparticles on Bacterial Cellulose Nanofibers Support for Pollutants Degradation. Journal of Polymers and the Environment, 2019, 27, 2867-2877.	5.0	55

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37	Development and characterization of plant oil-incorporated carboxymethyl cellulose/bacterial cellulose/glycerol-based antimicrobial edible films for food packaging applications. Advanced Composites and Hybrid Materials, 2022, 5, 973-990.	21.1	55
38	Nano-gold assisted highly conducting and biocompatible bacterial cellulose-PEDOT:PSS films for biology-device interface applications. International Journal of Biological Macromolecules, 2018, 107, 865-873.	7.5	53
39	Recent advancements in bioreactions of cellular and cell-free systems: A study of bacterial cellulose as a model. Korean Journal of Chemical Engineering, 2017, 34, 1591-1599.	2.7	52
40	Production, characterization and biological features of bacterial cellulose from scum obtained during preparation of sugarcane jaggery (gur). Journal of Food Science and Technology, 2015, 52, 8343-8349.	2.8	48
41	Production, Characterization and Physico-mechanical Properties of Bacterial Cellulose from Industrial Wastes. Journal of Polymers and the Environment, 2015, 23, 45-53.	5.0	46
42	Development and Characterization of Yeast-Incorporated Antimicrobial Cellulose Biofilms for Edible Food Packaging Application. Polymers, 2021, 13, 2310.	4.5	46
43	Engineered regenerated bacterial cellulose scaffolds for application in in vitro tissue regeneration. RSC Advances, 2015, 5, 84565-84573.	3.6	45
44	Potential applications of bacterial cellulose and its composites for cancer treatment. International Journal of Biological Macromolecules, 2021, 168, 301-309.	7.5	45
45	Bio-ethanol production through simultaneous saccharification and fermentation using an encapsulated reconstituted cell-free enzyme system. Biochemical Engineering Journal, 2014, 91, 110-119.	3.6	43
46	Current advancements of magnetic nanoparticles in adsorption and degradation of organic pollutants. Environmental Science and Pollution Research, 2017, 24, 12713-12722.	5.3	42
47	Fabrication strategies and biomedical applications of three-dimensional bacterial cellulose-based scaffolds: A review. International Journal of Biological Macromolecules, 2022, 209, 9-30.	7.5	42
48	Yeast cell-free enzyme system for bio-ethanol production at elevated temperatures. Process Biochemistry, 2014, 49, 357-364.	3.7	41
49	Synthesis and characterization of a novel bacterial celluloseâ€“poly(3,4-ethylenedioxythiophene)â€“poly(styrene sulfonate) composite for use in biomedical applications. Cellulose, 2015, 22, 2141-2148.	4.9	40
50	Challenges in the development of drugs for the treatment of tuberculosis. Brazilian Journal of Infectious Diseases, 2013, 17, 74-81.	0.6	36
51	Developmental strategies and regulation of cell-free enzyme system for ethanol production: a molecular prospective. Applied Microbiology and Biotechnology, 2014, 98, 9561-9578.	3.6	34
52	MnMoO4 nanorods-encapsulated carbon nanofibers hybrid mat as binder-free electrode for flexible asymmetric supercapacitors. Materials Science in Semiconductor Processing, 2021, 136, 106176.	4.0	30
53	Encapsulated yeast cell-free system: A strategy for cost-effective and sustainable production of bio-ethanol in consecutive batches. Biotechnology and Bioprocess Engineering, 2015, 20, 561-575.	2.6	29
54	Adopting a green method for the synthesis of gold nanoparticles on cotton cloth for antimicrobial and environmental applications. Arabian Journal of Chemistry, 2021, 14, 103327.	4.9	29

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55	Ex situ Synthesis and Characterization of High Strength Multipurpose Bacterial Cellulose-Aloe vera Hydrogels. Frontiers in Bioengineering and Biotechnology, 2021, 9, 601988.	4.1	28
56	Multiwalled carbon nanotubes functionalized bacterial cellulose as an efficient healing material for diabetic wounds. International Journal of Biological Macromolecules, 2022, 203, 256-267.	7.5	27
57	Enhanced production of bioethanol from waste of beer fermentation broth at high temperature through consecutive batch strategy by simultaneous saccharification and fermentation. Enzyme and Microbial Technology, 2013, 53, 322-330.	3.2	26
58	Multifunctional Polymeric Nanocurcumin for Cancer Therapy. Journal of Nanoscience and Nanotechnology, 2014, 14, 803-814.	0.9	26
59	Antimicrobial and Biocompatible Properties of Nanomaterials. Journal of Nanoscience and Nanotechnology, 2014, 14, 780-791.	0.9	23
60	NiO powder synthesized through nickel metal complex degradation for water treatment. , 0, 155, 216-224.		23
61	Development of bactericidal spinel ferrite nanoparticles with effective biocompatibility for potential wound healing applications. RSC Advances, 2021, 11, 1773-1782.	3.6	21
62	Potential of the waste from beer fermentation broth for bio-ethanol production without any additional enzyme, microbial cells and carbohydrates. Enzyme and Microbial Technology, 2011, 49, 298-304.	3.2	18
63	Synthesis of silver nanoparticles-decorated poly(m-aminophenol) nanofibers and their application in a non-enzymatic glucose biosensor. Journal of Macromolecular Science - Pure and Applied Chemistry, 2021, 58, 461-471.	2.2	18
64	Prospects of reusable endogenous hydrolyzing enzymes in bioethanol production by simultaneous saccharification and fermentation. Korean Journal of Chemical Engineering, 2012, 29, 1467-1482.	2.7	17
65	Enhanced bio-ethanol production via simultaneous saccharification and fermentation through a cell free enzyme system prepared by disintegration of waste of beer fermentation broth. Korean Journal of Chemical Engineering, 2015, 32, 694-701.	2.7	17
66	Interaction of Nanomaterials with Cells and Their Medical Applications. Journal of Nanoscience and Nanotechnology, 2014, 14, 744-754.	0.9	16
67	Fabrication of magnetic core shell particles coated with phenylalanine imprinted polymer. Polymer Testing, 2019, 75, 262-269.	4.8	16
68	Antibacterial and Catalytic Performance of Green Synthesized Silver Nanoparticles Embedded in Crosslinked PVA Sheet. Journal of Polymers and the Environment, 2021, 29, 3252-3262.	5.0	15
69	Effective Role of Magnetic Core-Shell Nanocomposites in Removing Organic and Inorganic Wastes from Water. Recent Patents on Nanotechnology, 2016, 10, 202-212.	1.3	15
70	Nitrogen and Sulfur Co-doped Two-Dimensional Highly Porous Carbon Nanosheets for High-Performance Lithiumâ€“Sulfur Batteries. Energy & Fuels, 2022, 36, 2220-2227.	5.1	15
71	Biotemplate-Mediated Green Synthesis and Applications of Nanomaterials. Current Pharmaceutical Design, 2020, 26, 5819-5836.	1.9	14
72	Synthesis, Chemistry, and Medical Application of Bacterial Cellulose Nanocomposites. Advanced Structured Materials, 2015, , 399-437.	0.5	13

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73	Potential Applications of Bacterial Cellulose in Environmental and Pharmaceutical Sectors. Current Pharmaceutical Design, 2020, 26, 5793-5806.	1.9	13
74	Synthetic Methodologies and Energy Storage/Conversion Applications of Porous Carbon Nanosheets: A Systematic Review. Energy & Fuels, 2022, 36, 3420-3442.	5.1	12
75	Silver impregnated bacterial cellulose-chitosan composite hydrogels for antibacterial and catalytic applications. Journal of Materials Research and Technology, 2022, 18, 2037-2047.	5.8	11
76	Highly improved adsorption selectivity of L-phenylalanine imprinted polymeric submicron/nanoscale beads prepared by modified suspension polymerization. Korean Journal of Chemical Engineering, 2011, 28, 1936-1944.	2.7	10
77	Partial purification of saccharifying and cell wall-hydrolyzing enzymes from malt in waste from beer fermentation broth. Bioprocess and Biosystems Engineering, 2013, 36, 737-747.	3.4	10
78	Bacterial Cellulose: A Versatile Material for Fabrication of Conducting Nanomaterials. Current Nanoscience, 2021, 17, 393-405.	1.2	10
79	Facile synthesis of hair-extract-capped gold and silver nanoparticles and their biological applications. RSC Advances, 2016, 6, 113452-113456.	3.6	8
80	Switching from Conventional to Nano-natural Phytochemicals to Prevent and Treat Cancers: Special Emphasis on Resveratrol. Current Pharmaceutical Design, 2019, 25, 3620-3632.	1.9	8
81	Comparative Synthesis and Characterization of Bio-Cellulose from Local Waste and Cheap Resources. Current Pharmaceutical Design, 2019, 25, 3664-3671.	1.9	8
82	Failure of Chemotherapy in Hepatocellular Carcinoma Due to Impaired and Dysregulated Primary Liver Drug Metabolizing Enzymes and Drug Transport Proteins: What to Do?. Current Drug Metabolism, 2018, 19, 819-829.	1.2	7
83	Photocatalytic degradation of organic dyes by U3MnO10 nanoparticles under UV and sunlight. Inorganic Chemistry Communication, 2021, 134, 109075.	3.9	7
84	Enhanced impact-resistance of aeronautical quasi-isotropic composite plates through diffused water molecules in epoxy. Scientific Reports, 2021, 11, 1775.	3.3	6
85	Bacterial cellulose: Trends in synthesis, characterization, and applications. , 2021, , 923-974.		6
86	Core-Shell Molecularly Imprinted Polymer Nanocomposites for Biomedical and Environmental Applications. Current Pharmaceutical Design, 2019, 25, 3633-3644.	1.9	6
87	Nickel oxide and carboxymethyl cellulose composite beads as catalyst for the pollutant degradation. Applied Nanoscience (Switzerland), 2022, 12, 3585-3595.	3.1	6
88	Editorial: Nanocellulose: A Multipurpose Advanced Functional Material, Volume II. Frontiers in Bioengineering and Biotechnology, 2022, 10, .	4.1	6
89	Stimulatory Effects of Zinc Oxide Nanoparticles on Visual Sensitivity and Electroretinography b-Waves in the Bullfrog Eye. Journal of Biomedical Nanotechnology, 2013, 9, 1408-1415.	1.1	5
90	Preparation and Characterization of Agar Based Magnetic Nanocomposite for Potential Biomedical Applications. Current Pharmaceutical Design, 2019, 25, 3672-3680.	1.9	5

#	Article	IF	Citations
91	Efficient fabrication, antibacterial and catalytic performance of Ag-NiO loaded bacterial cellulose paper. International Journal of Biological Macromolecules, 2022, 206, 917-926.	7.5	5
92	Nanocurcumin: A Double-Edged Sword for Microcancers. Current Pharmaceutical Design, 2020, 26, 5783-5792.	1.9	3
93	Preparation, Characterization, and Biological Features of Cactus Coated Bacterial Cellulose Hydrogels. Gels, 2022, 8, 88.	4.5	3
94	Microwave-assisted synthesis of a magnetic coreâ€“shell material composed of Fe3O4@SiO2@poly(methacrylamide-co-acrylic acid) for an anticancer drug loading. Applied Nanoscience (Switzerland), 2022, 12, 3547-3554.	3.1	3
95	Endogenous Hydrolyzing Enzymes: Isolation, Characterization, and Applications in Biological Processes. , 2015, , 535-579.		2
96	Recent developments in the synthesis, properties, and applications of various microbial polysaccharides. , 2021, , 975-1015.		2
97	Nigella sativa L. seeds extract assisted synthesis of silver nanoparticles and their antibacterial and catalytic performance. Applied Nanoscience (Switzerland), 2022, 12, 3185-3196.	3.1	2
98	A Novel Solar Water Sterilization Design: Targeted to Provide Potable Water for a Community of 50 People. Journal of Solar Energy Engineering, Transactions of the ASME, 2019, 141, .	1.8	1
99	Production of bio-cellulose from renewable resources: Properties and applications. , 2022, , 307-339.		1
100	Synthesis, MR Relaxivities, and In Vitro Cytotoxicity of 3,5-Diiodo-L-tyrosine-Coated Gd2O3 Nanoparticles. BioNanoScience, 2019, 9, 179-185.	3.5	0
101	Bio-nanocomposite for Medical and Environmental Applications. Current Nanoscience, 2021, 17, 349-350.	1.2	0
102	Endogenous Hydrolyzing : Isolation, Characterization, and Applications in Biological Processes. , 2014, , 1-38.		0
103	Emerging Materials for Environmental and Pharmaceutical Sectors. Current Pharmaceutical Design, 2020, 26, 5765-5766.	1.9	0
104	Effective Role of Magnetic Core-Shell Nanocomposites in Removing Organic Wastes from Water. Recent Patents on Nanotechnology, 2016, , .	1.3	0
105	Traditional and recently advanced synthetic routes of the metal oxide materials. , 2022, , 79-99.		0