Tzanko Tzanov

List of Publications by Year in descending order

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125	5,749	71004	93651
papers	citations	43 h-index	72 g-index

129	129	129	7231
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Electrochemical quantification of biomarker myeloperoxidase. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 2022, 77, 297-302.	0.6	2
2	Synthesis and evaluation of wound healing properties of hydro-diab hydrogel loaded with green-synthetized AGNPS: in vitro and in ex vivo studies. Drug Delivery and Translational Research, 2022, 12, 1881-1894.	3.0	12
3	Electrical monitoring of infection biomarkers in chronic wounds using nanochannels. Biosensors and Bioelectronics, 2022, 209, 114243.	5.3	7
4	Antibacterial, Antibiofilm, and Antiviral Farnesol-Containing Nanoparticles Prevent Staphylococcus aureus from Drug Resistance Development. International Journal of Molecular Sciences, 2022, 23, 7527.	1.8	6
5	Nano-Formulation Endows Quorum Quenching Enzyme-Antibiotic Hybrids with Improved Antibacterial and Antibiofilm Activities against Pseudomonas aeruginosa. International Journal of Molecular Sciences, 2022, 23, 7632.	1.8	9
6	Sonochemical coating of Prussian Blue for the production of smart bacterial-sensing hospital textiles. Ultrasonics Sonochemistry, 2021, 70, 105317.	3.8	21
7	Antimicrobial lightweight materials and components. , 2021, , 469-502.		1
8	Hybrid Telluriumâ€“Lignin Nanoparticles with Enhanced Antibacterial Properties. ACS Applied Materials & Interfaces, 2021, 13, 14885-14893.	4.0	32
9	Novel Lignin-Capped Silver Nanoparticles against Multidrug-Resistant Bacteria. ACS Applied Materials & Interfaces, 2021, 13, 22098-22109.	4.0	67
10	Nanoparticle-driven self-assembling injectable hydrogels provide a multi-factorial approach for chronic wound treatment. Acta Biomaterialia, 2021, 134, 131-143.	4.1	42
11	Targeting Intracellular Mycobacteria Using Nanosized Niosomes Loaded with Antibacterial Agents. Nanomaterials, 2021, 11, 1984.	1.9	9
12	Lipid artificial tears at a mimetic ocular interface. Chemistry and Physics of Lipids, 2021, 238, 105087.	1.5	2
13	Sonochemically engineered nano-enabled zinc oxide/amylase coatings prevent the occurrence of catheter-associated urinary tract infections. Materials Science and Engineering C, 2021, 131, 112518.	3.8	14
14	Simultaneous Ultrasound-Assisted Hybrid Polyzwitterion/Antimicrobial Peptide Nanoparticles Synthesis and Deposition on Silicone Urinary Catheters for Prevention of Biofilm-Associated Infections. Nanomaterials, 2021, 11, 3143.	1.9	5
15	Hyaluronic Acid Derivative Molecular Weight-Dependent Synthesis and Antimicrobial Effect of Hybrid Silver Nanoparticles. International Journal of Molecular Sciences, 2021, 22, 13428.	1.8	8
16	Antibody-Enabled Antimicrobial Nanocapsules for Selective Elimination of Staphylococcus aureus. ACS Applied Materials & Interfaces, 2020, 12, 35918-35927.	4.0	28
17	A Fungal Ascorbate Oxidase with Unexpected Laccase Activity. International Journal of Molecular Sciences, 2020, 21, 5754.	1.8	11
18	A potential lignocellulosic biomass based on banana waste for critical rare earths recovery from aqueous solutions. Environmental Pollution, 2020, 264, 114409.	3.7	44

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19	Interaction of Silver-Lignin Nanoparticles With Mammalian Mimetic Membranes. Frontiers in Bioengineering and Biotechnology, 2020, 8, 439.	2.0	15
20	Antibacterial Polyurethane Foams with Incorporated Lignin-Capped Silver Nanoparticles for Chronic Wound Treatment. Industrial & Engineering Chemistry Research, 2020, 59, 4504-4514.	1.8	54
21	Antibiofilm poly(carboxybetaine methacrylate) hydrogels for chronic wounds dressings. European Polymer Journal, 2020, 132, 109673.	2.6	9
22	Layerâ€Byâ€Layer Coating of Aminocellulose and Quorum Quenching Acylase on Silver Nanoparticles Synergistically Eradicate Bacteria and Their Biofilms. Advanced Functional Materials, 2020, 30, 2001284.	7.8	63
23	Lipid-lipid interactions of Escherichia coli mimetic inner membrane atÂhuman physiological temperature. General Physiology and Biophysics, 2020, 39, 195-202.	0.4	5
24	Enzyme biotechnology for medical textiles. , 2019, , 133-158.		0
25	Poly(sulfobetaine methacrylate)/poly(ethylene glycol) hydrogels for chronic wounds management. European Polymer Journal, 2019, 117, 391-401.	2.6	13
26	Electrical Evaluation of Bacterial Virulence Factors Using Nanopores. ACS Applied Materials & Interfaces, 2019, 11, 13140-13146.	4.0	23
27	Hydrogel Dressings for Advanced Wound Management. Current Medicinal Chemistry, 2019, 25, 5782-5797.	1.2	165
28	Multifunctional ZnO NPs-chitosan-gallic acid hybrid nanocoating to overcome contact lenses associated conditions and discomfort. Journal of Colloid and Interface Science, 2019, 543, 114-121.	5.0	33
29	New myeloperoxidase detection system based on enzyme-catalysed oxidative synthesis of a dye for paper-based diagnostic devices. Talanta, 2019, 194, 469-474.	2.9	8
30	Physical states and thermodynamic properties of model gram-negative bacterial inner membranes. Chemistry and Physics of Lipids, 2019, 218, 57-64.	1.5	17
31	Durable antimicrobial cotton textiles coated sonochemically with ZnO nanoparticles embedded in an in-situ enzymatically generated bioadhesive. Carbohydrate Polymers, 2018, 189, 198-203.	5.1	89
32	Strategies to prevent the occurrence of resistance against antibiotics by using advanced materials. Applied Microbiology and Biotechnology, 2018, 102, 2075-2089.	1.7	69
33	Antibacterial Coatings on Medical Devices. , 2018, , 487-507.		2
34	Layer-By-Layer Decorated Nanoparticles with Tunable Antibacterial and Antibiofilm Properties against Both Gram-Positive and Gram-Negative Bacteria. ACS Applied Materials & Interfaces, 2018, 10, 3314-3323.	4.0	66
35	Smart Sensing Fabrics for Live Bacteria Detection. Proceedings (mdpi), 2018, 2, .	0.2	2
36	Enzymatic synthesis of a thiolated chitosan-based wound dressing crosslinked with chicoric acid. Journal of Materials Chemistry B, 2018, 6, 7943-7953.	2.9	27

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37	Metalâ€“Enzyme Nanoaggregates Eradicate Both Gram-Positive and Gram-Negative Bacteria and Their Biofilms. ACS Applied Materials & Interfaces, 2018, 10, 40434-40442.	4.0	31
38	Bottom-up Layer-by-Layer Assembling of Antibacterial Freestanding Nanobiocomposite Films. Biomacromolecules, 2018, 19, 3628-3636.	2.6	29
39	Inhibition of Quorum-Sensing: A New Paradigm in Controlling Bacterial Virulence and Biofilm Formation. , 2018, , 3-21.		3
40	Nanotransformation of Vancomycin Overcomes the Intrinsic Resistance of Gram-Negative Bacteria. ACS Applied Materials & Interfaces, 2017, 9, 15022-15030.	4.0	53
41	Multifunctional Enzymatically Generated Hydrogels for Chronic Wound Application. Biomacromolecules, 2017, 18, 1544-1555.	2.6	58
42	Sonochemical synthesis and stabilization of concentrated antimicrobial silverâ€chitosan nanoparticle dispersions. Journal of Applied Polymer Science, 2017, 134, 45136.	1.3	20
43	Hybrid Chitosanâ€“Silver Nanoparticles Enzymatically Embedded on Cork Filter Material for Water Disinfection. Industrial & Engineering Chemistry Research, 2017, 56, 3599-3606.	1.8	22
44	Immobilization of antimicrobial core-shell nanospheres onto silicone for prevention of Escherichia coli biofilm formation. Process Biochemistry, 2017, 59, 116-122.	1.8	15
45	Innovative Approaches for Controlling Clinically Relevant Biofilms: Current Trends and Future Prospects. Current Topics in Medicinal Chemistry, 2017, 17, 1889-1914.	1.0	17
46	Innovative Approaches for Controlling Clinically Relevant Biofilms: Current Trends and Future Prospects. Current Topics in Medicinal Chemistry, 2017, , .	1.0	8
47	Sonochemical co-deposition of antibacterial nanoparticles and dyes on textiles. Beilstein Journal of Nanotechnology, 2016, 7, 1-8.	1.5	29
48	Cellobiose dehydrogenase functionalized urinary catheter as novel antibiofilm system. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2016, 104, 1448-1456.	1.6	34
49	Escherichia coli and Pseudomonas aeruginosa eradication by nano-penicillin G. Nanomedicine: Nanotechnology, Biology, and Medicine, 2016, 12, 2061-2069.	1.7	24
50	Bacteria-responsive multilayer coatings comprising polycationic nanospheres for bacteria biofilm prevention on urinary catheters. Acta Biomaterialia, 2016, 33, 203-212.	4.1	84
51	Simultaneous sonochemical-enzymatic coating of medical textiles with antibacterial ZnO nanoparticles. Ultrasonics Sonochemistry, 2016, 29, 244-250.	3.8	111
52	Electrospinning of gelatin fibers using solutions with low acetic acid concentration: Effect of solvent composition on both diameter of electrospun fibers and cytotoxicity. Journal of Applied Polymer Science, 2015, 132, .	1.3	90
53	Biocompounds from rapeseed oil industry coâ€stream as active ingredients for skin care applications. International Journal of Cosmetic Science, 2015, 37, 496-505.	1.2	16
54	Electrochemical Insights on the Hydrophobicity of Cellulose Substrates Imparted by Enzymatically Oxidized Gallates with Increasing Alkyl Chain Length. ACS Applied Materials & Interfaces, 2015, 7, 13834-13841.	4.0	6

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55	Strategies for Silencing Bacterial Communication. , 2015, , 197-216.		3
56	Quorum-Quenching and Matrix-Degrading Enzymes in Multilayer Coatings Synergistically Prevent Bacterial Biofilm Formation on Urinary Catheters. ACS Applied Materials & Interfaces, 2015, 7, 27066-27077.	4.0	128
57	Enzymeâ€assisted formation of hybrid biopolymer hydrogels incorporating active phenolic nanospheres. Engineering in Life Sciences, 2015, 15, 416-424.	2.0	13
58	Polymers in Wound Repair. , 2015, , 401-431.		3
59	Making the hospital a safer place by sonochemical coating of all its textiles with antibacterial nanoparticles. Ultrasonics Sonochemistry, 2015, 25, 82-88.	3.8	53
60	Enzyme multilayer coatings inhibit Pseudomonas aeruginosa biofilm formation on urinary catheters. Applied Microbiology and Biotechnology, 2015, 99, 4373-4385.	1.7	92
61	Size and Aging Effects on Antimicrobial Efficiency of Silver Nanoparticles Coated on Polyamide Fabrics Activated by Atmospheric DBD Plasma. ACS Applied Materials & Interfaces, 2015, 7, 13731-13744.	4.0	103
62	Enzymatic Functionalization of Cork Surface with Antimicrobial Hybrid Biopolymer/Silver Nanoparticles. ACS Applied Materials & Interfaces, 2015, 7, 9792-9799.	4.0	31
63	Bio/sonochemical conversion of fish backbones into bioactive nanospheres. Process Biochemistry, 2015, 50, 1843-1851.	1.8	9
64	In situ chitosan gelation initiated by atmospheric plasma treatment. Carbohydrate Polymers, 2014, 103, 472-479.	5.1	48
65	An enzymatic approach to develop a lignin-based adhesive for wool floor coverings. Green Chemistry, 2014, 16, 2597.	4.6	56
66	One-step sonochemical preparation of redox-responsive nanocapsules for glutathione mediated RNA release. Journal of Materials Chemistry B, 2014, 2, 6020-6029.	2.9	19
67	Building an Antifouling Zwitterionic Coating on Urinary Catheters Using an Enzymatically Triggered Bottom-Up Approach. ACS Applied Materials & Interfaces, 2014, 6, 11385-11393.	4.0	108
68	Sonochemically Processed Cationic Nanocapsules: Efficient Antimicrobials with Membrane Disturbing Capacity. Biomacromolecules, 2014, 15, 1365-1374.	2.6	46
69	Tannic acid NPs â€“ Synthesis and immobilization onto a solid surface in a one-step process and their antibacterial and anti-inflammatory properties. Ultrasonics Sonochemistry, 2014, 21, 1916-1920.	3.8	52
70	Sonochemical Coating of Textiles with Hybrid ZnO/Chitosan Antimicrobial Nanoparticles. ACS Applied Materials & Interfaces, 2014, 6, 1164-1172.	4.0	194
71	Functional biopolymer-based matrices for modulation of chronic wound enzyme activities. Acta Biomaterialia, 2013, 9, 5216-5225.	4.1	32
72	A new approach to produce plant antioxidant-loaded chitosan for modulating proteolytic environment and bacterial growth. Journal of Materials Chemistry B, 2013, 1, 1241.	2.9	6

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73	Laccase-assisted formation of bioactive chitosan/gelatin hydrogel stabilized with plant polyphenols. Carbohydrate Polymers, 2013, 92, 989-996.	5.1	95
74	Chitosan and chitosanâ€“ZnO-based complex nanoparticles: formation, characterization, and antibacterial activity. Journal of Materials Chemistry B, 2013, 1, 1968.	2.9	187
75	Use of Cyclic Voltammetry as an Effective Tool for Selecting Efficient Enhancers for Oxidative Bioprocesses: Importance of pH. Industrial & Engineering Chemistry Research, 2013, 52, 1455-1463.	1.8	12
76	Effect of thiol-functionalisation on chitosan antibacterial activity: Interaction with a bacterial membrane model. Reactive and Functional Polymers, 2013, 73, 1384-1390.	2.0	41
77	Inhibition of deleterious chronic wound enzymes with plant polyphenols. Biocatalysis and Biotransformation, 2012, 30, 102-110.	1.1	21
78	Enzymatic pre-treatment as a means of enhancing the antibacterial activity and stability of ZnO nanoparticles sonochemically coated on cotton fabrics. Journal of Materials Chemistry, 2012, 22, 10736.	6.7	43
79	Light harvesting amphiphiles boost the performance of lipase-based washing formulations. Enzyme and Microbial Technology, 2012, 51, 156-162.	1.6	2
80	GAGs-thiolated chitosan assemblies for chronic wounds treatment: control of enzyme activity and cell attachment. Journal of Materials Chemistry, 2012, 22, 19438.	6.7	27
81	Hematoporphyrin-based amphiphiles boost the washing performance of protease-containing formulations in a biomimetic approach. Journal of Molecular Catalysis B: Enzymatic, 2012, 78, 45-50.	1.8	3
82	Sensor materials for the detection of human neutrophil elastase and cathepsin G activity in wound fluid. Experimental Dermatology, 2011, 20, 508-513.	1.4	55
83	Crossâ€linked collagen sponges loaded with plant polyphenols with inhibitory activity towards chronic wound enzymes. Biotechnology Journal, 2011, 6, 1208-1218.	1.8	31
84	Phenolic compounds as enhancers in enzymatic and electrochemical oxidation of veratryl alcohol and lignins. Applied Microbiology and Biotechnology, 2011, 89, 1693-1700.	1.7	37
85	Protein disulphide isomerase-assisted functionalization of keratin-based matrices. Applied Microbiology and Biotechnology, 2011, 90, 1311-1321.	1.7	11
86	Effects of alkyl chain lengths of gallates upon enzymatic wool functionalisation. Journal of Molecular Catalysis B: Enzymatic, 2010, 67, 231-235.	1.8	29
87	Oneâ€Step Preparation of Multifunctional Chitosan Microspheres by a Simple Sonochemical Method. Chemistry - A European Journal, 2010, 16, 562-567.	1.7	43
88	Enzyme-mediated coupling of a bi-functional phenolic compound onto wool to enhance its physical, mechanical and functional properties. Enzyme and Microbial Technology, 2010, 46, 326-330.	1.6	29
89	Developments in the processing of chitin, chitosan and bacterial cellulose for textile and other applications. , 2010, , 288-311.		7
90	Chitin, Chitosan and Derivatives for Wound Healing and Tissue Engineering. Advances in Biochemical Engineering/Biotechnology, 2010, 125, 1-27.	0.6	54

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91	Electrochemical Study of Phenolic Compounds as Enhancers in Laccaseâ€Catalyzed Oxidative Reactions. Electroanalysis, 2009, 21, 2249-2257.	1.5	29
92	Voltametric monitoring of enzyme-mediated indigo reduction in the presence of various fibre materials. Enzyme and Microbial Technology, 2009, 45, 317-323.	1.6	16
93	Plant polyphenols modified chitosan to inhibit human myeloperoxidase chlorinating activity. New Biotechnology, 2009, 25, S289-S290.	2.4	1
94	Multifunctional modification of wool using an enzymatic process in aqueousâ€“organic media. Journal of Biotechnology, 2009, 141, 58-63.	1.9	54
95	Dyeing properties, synthesis, isolation and characterization of an in situ generated phenolic pigment, covalently bound to cotton. Enzyme and Microbial Technology, 2009, 44, 380-385.	1.6	42
96	Comparative study of the efficiency of synthetic and natural mediators in laccase-assisted bleaching of eucalyptus kraft pulp. Bioresource Technology, 2008, 99, 7959-7965.	4.8	84
97	Stabilization of Membrane Proteins: the Case of Gâ€Proteinâ€Coupled Receptors. Engineering in Life Sciences, 2008, 8, 207-217.	2.0	4
98	Simultaneous protease and transglutaminase treatment for shrink resistance of wool. Biocatalysis and Biotransformation, 2008, 26, 405-411.	1.1	20
99	Bio-catalyzed coloration of cellulose fibers. Biocatalysis and Biotransformation, 2007, 25, 336-340.	1.1	33
100	Combined ultrasound-laccase assisted bleaching of cotton. Ultrasonics Sonochemistry, 2007, 14, 350-354.	3.8	101
101	Laccase-assisted Dyeing of Cotton. Biotechnology Letters, 2006, 28, 755-759.	1.1	55
102	Surface Modification of Cellulose Fibers with Hydrolases and Kinases. , 2006, , 159-180.		3
103	Environmentally friendly bleaching of cotton using laccases. Environmental Chemistry Letters, 2005, 3, 66-69.	8.3	74
104	Predicting Dye Biodegradation from Redox Potentials. Biotechnology Progress, 2004, 20, 1588-1592.	1.3	76
105	Effect of Some Process Parameters in Enzymatic Dyeing of Wool. Applied Biochemistry and Biotechnology, 2003, 111, 1-14.	1.4	51
106	Immobilized laccase for decolourization of Reactive Black 5 dyeing effluent. Biotechnology Letters, 2003, 25, 1473-1477.	1.1	131
107	Proteases to Improve the Mechanical Characteristics of Durable Press Finished Cotton Fabrics. Macromolecular Materials and Engineering, 2003, 288, 71-75.	1.7	5
108	Objective Evaluation of the Efficiency of Cellulase Finishing of Cotton Fabrics Dyed with Reactive Dyes. Macromolecular Materials and Engineering, 2003, 288, 957-963.	1.7	9

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109	Laccases to Improve the Whiteness in a Conventional Bleaching of Cotton. Macromolecular Materials and Engineering, 2003, 288, 807-810.	1.7	84
110	An acid-stable laccase from Sclerotium rolfsii with potential for wool dye decolourization. Enzyme and Microbial Technology, 2003, 33, 766-774.	1.6	104
111	Protein interactions in enzymatic processes in textiles. Electronic Journal of Biotechnology, 2003, 6, .	1.2	2
112	Hydrogen peroxide generation with immobilized glucose oxidase for textile bleaching. Journal of Biotechnology, 2002, 93, 87-94.	1.9	124
113	Phosphorylation of Cotton Cellulose with Baker's Yeast Hexokinase. Macromolecular Rapid Communications, 2002, 23, 962-964.	2.0	22
114	Lipases to Improve the Performance of Formaldehyde-Free Durable Press Finished Cotton Fabrics. Macromolecular Materials and Engineering, 2002, 287, 462.	1.7	8
115	Studies of stabilization of native catalase using additives. Enzyme and Microbial Technology, 2002, 30, 387-391.	1.6	79
116	Voltammetric monitoring of laccase-catalysed mediated reactions. Bioelectrochemistry, 2002, 58, 149-156.	2.4	110
117	Recycling of textile bleaching effluents for dyeing using immobilized catalase. Biotechnology Letters, 2002, 24, 173-176.	1.1	31
118	Thermo-alkali-stable catalases from newly isolated Bacillus sp. for the treatment and recycling of textile bleaching effluents. Journal of Biotechnology, 2001, 89, 147-153.	1.9	64
119	Immobilization of catalases from Bacillus SF on alumina for the treatment of textile bleaching effluents. Enzyme and Microbial Technology, 2001, 28, 815-819.	1.6	105
120	Bio-preparation of cotton fabrics. Enzyme and Microbial Technology, 2001, 29, 357-362.	1.6	157
121	Effect of temperature and bath composition on the dyeing of cotton with catalase-treated bleaching effluent. Coloration Technology, 2001, 117, 166-170.	0.7	18
122	Dyeing in catalase-treated bleaching baths. Coloration Technology, 2001, 117, 1-5.	0.7	36
123	Decolorization and Detoxification of Textile Dyes with a Laccase from Trametes hirsuta. Applied and Environmental Microbiology, 2000, 66, 3357-3362.	1.4	644
124	Thermophysiological comfort of silicone softenersâ€treated woven textile materials. International Journal of Clothing Science and Technology, 1999, 11, 189-197.	0.5	17
125	Effect of acute hypoxia on photodynamic reactions in normal tissues. Lasers in Medical Science, 1987, 2, 91-93.	1.0	3