

Jakub Zdarta

List of Publications by Year in descending order

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Version: 2024-02-01

82
papers

3,985
citations

196777

29
h-index

139680

61
g-index

87
all docs

87
docs citations

87
times ranked

4695
citing authors

#	ARTICLE	IF	CITATIONS
1	A contemporary review of enzymatic applications in the remediation of emerging estrogenic compounds. <i>Critical Reviews in Environmental Science and Technology</i> , 2022, 52, 2661-2690.	6.6	17
2	Mimicking natural strategies to create multi-environment enzymatic reactors: From natural cell compartments to artificial polyelectrolyte reactors. <i>Biotechnology Advances</i> , 2022, 54, 107798.	6.0	20
3	Free and immobilized biocatalysts for removing micropollutants from water and wastewater: Recent progress and challenges. <i>Bioresource Technology</i> , 2022, 344, 126201.	4.8	61
4	Enzyme-based control of membrane biofouling for water and wastewater purification: A comprehensive review. <i>Environmental Technology and Innovation</i> , 2022, 25, 102106.	3.0	20
5	Removal of tetracycline in enzymatic membrane reactor: Enzymatic conversion as the predominant mechanism over adsorption and membrane rejection. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 106973.	3.3	15
6	Nanobiocatalysts for wastewater remediation and redefining of pollutants. , 2022, , 313-337.		0
7	Biotechnology â€“ current achievements and future challenges. <i>AIMS Bioengineering</i> , 2022, 9, 61-63.	0.6	0
8	Biocatalytic System Made of 3D Chitin, Silica Nanopowder and Horseradish Peroxidase for the Removal of 17Î±-Ethinylestradiol: Determination of Process Efficiency and Degradation Mechanism. <i>Molecules</i> , 2022, 27, 1354.	1.7	10
9	Enzymatic membrane reactor in xylose bioconversion with simultaneous cofactor regeneration. <i>Bioorganic Chemistry</i> , 2022, 123, 105781.	2.0	3
10	Bioremoval of estrogens by laccase immobilized onto polyacrylonitrile/polyethersulfone material: Effect of inhibitors and mediators, process characterization and catalytic pathways determination. <i>Journal of Hazardous Materials</i> , 2022, 432, 128688.	6.5	16
11	Removal of Persistent Sulfamethoxazole and Carbamazepine from Water by Horseradish Peroxidase Encapsulated into Poly(Vinyl Chloride) Electrospun Fibers. <i>International Journal of Molecular Sciences</i> , 2022, 23, 272.	1.8	12
12	Synergistic action of laccase treatment and membrane filtration during removal of azo dyes in an enzymatic membrane reactor upgraded with electrospun fibers. <i>Journal of Hazardous Materials</i> , 2022, 435, 129071.	6.5	25
13	Laccase immobilization in polyelectrolyte multilayer membranes for 17Î±-ethinylestradiol removal: Biocatalytic approach for pharmaceuticals degradation. <i>Chemosphere</i> , 2022, 304, 135374.	4.2	5
14	Immobilized Lipase in Resolution of Ketoprofen Enantiomers: Examination of Biocatalysts Properties and Process Characterization. <i>Pharmaceutics</i> , 2022, 14, 1443.	2.0	4
15	Biomethane production from anaerobic co-digestion at wastewater treatment plants: A critical review on development and innovations in biogas upgrading techniques. <i>Science of the Total Environment</i> , 2021, 765, 142753.	3.9	103
16	Horseradish peroxidase immobilised onto electrospun fibres and its application in decolourisation of dyes from model sea water. <i>Process Biochemistry</i> , 2021, 102, 10-21.	1.8	32
17	Biopolymers and nanostructured materials to develop pectinases-based immobilized nano-biocatalytic systems for biotechnological applications. <i>Food Research International</i> , 2021, 140, 109979.	2.9	38
18	Valorizing agricultural residues as biorefinery feedstocks: current advancements and challenges. , 2021, , 25-48.		0

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19	Electrospun biosystems made of nylon 6 and laccase and its application in dyes removal. <i>Environmental Technology and Innovation</i> , 2021, 21, 101332.	3.0	18
20	Enhanced Wastewater Treatment by Immobilized Enzymes. <i>Current Pollution Reports</i> , 2021, 7, 167-179.	3.1	51
21	Pristine and Poly(Dimethylsiloxane) Modified Multi-Walled Carbon Nanotubes as Supports for Lipase Immobilization. <i>Materials</i> , 2021, 14, 2874.	1.3	8
22	New Biocomposite Electrospun Fiber/Alginate Hydrogel for Probiotic Bacteria Immobilization. <i>Materials</i> , 2021, 14, 3861.	1.3	12
23	From core-shell like structured zirconia/magnetite hybrid towards novel biocatalytic systems for tetracycline removal: Synthesis, enzyme immobilization, degradation and toxicity study. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105701.	3.3	18
24	Tailor-made novel electrospun polystyrene/poly(D,L-lactide-co-glycolide) for oxidoreductases immobilization: Improvement of catalytic properties under extreme reaction conditions. <i>Bioorganic Chemistry</i> , 2021, 114, 105036.	2.0	18
25	Significance of the presence of antibiotics on the microbial consortium in wastewater – The case of nitrofurantoin and furazolidone. <i>Bioresource Technology</i> , 2021, 339, 125577.	4.8	5
26	The shadow pandemic of single use personal protective equipment plastic waste: A blue print for suppression and eradication. <i>Case Studies in Chemical and Environmental Engineering</i> , 2021, 4, 100125.	2.9	24
27	Promotion of direct interspecies electron transfer and potential impact of conductive materials in anaerobic digestion and its downstream processing - a critical review. <i>Bioresource Technology</i> , 2021, 341, 125847.	4.8	29
28	A promising laccase immobilization using electrospun materials for biocatalytic degradation of tetracycline: Effect of process conditions and catalytic pathways. <i>Catalysis Today</i> , 2020, 348, 127-136.	2.2	76
29	Mesostructured cellular foam silica materials for laccase immobilization and tetracycline removal: A comprehensive study. <i>Microporous and Mesoporous Materials</i> , 2020, 291, 109688.	2.2	21
30	A highly effective approach to cofactor regeneration and subsequent membrane separation of bioconversion products: Kinetic parameters and effect of process conditions. <i>Bioresource Technology Reports</i> , 2020, 9, 100365.	1.5	2
31	The response surface methodology for optimization of tyrosinase immobilization onto electrospun polycaprolactone-chitosan fibers for use in bisphenol A removal. <i>International Journal of Biological Macromolecules</i> , 2020, 165, 2049-2059.	3.6	26
32	Antimicrobial Activity and Barrier Properties against UV Radiation of Alkaline and Enzymatically Treated Linen Woven Fabrics Coated with Inorganic Hybrid Material. <i>Molecules</i> , 2020, 25, 5701.	1.7	7
33	Direct separation of acetate and furfural from xylose by nanofiltration of birch pretreated liquor: Effect of process conditions and separation mechanism. <i>Separation and Purification Technology</i> , 2020, 239, 116546.	3.9	12
34	Electrospun poly(methyl methacrylate)/polyaniline fibres as a support for laccase immobilisation and use in dye decolourisation. <i>Environmental Research</i> , 2020, 184, 109332.	3.7	78
35	A Novel Approach in Crude Enzyme Laccase Production and Application in Emerging Contaminant Bioremediation. <i>Processes</i> , 2020, 8, 648.	1.3	17
36	Blue-Green Algae in Surface Water: Problems and Opportunities. <i>Current Pollution Reports</i> , 2020, 6, 105-122.	3.1	33

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37	3D Chitin Scaffolds from the Marine Demosponge <i>Aplysina archeri</i> as a Support for Laccase Immobilization and Its Use in the Removal of Pharmaceuticals. <i>Biomolecules</i> , 2020, 10, 646.	1.8	25
38	Application of Enzymatic-Based Bioreactors. , 2020, , 110-121.		2
39	Co-Immobilization of Glucose Dehydrogenase and Xylose Dehydrogenase as a New Approach for Simultaneous Production of Gluconic and Xylonic Acid. <i>Materials</i> , 2019, 12, 3167.	1.3	12
40	Multi-faceted strategy based on enzyme immobilization with reactant adsorption and membrane technology for biocatalytic removal of pollutants: A critical review. <i>Biotechnology Advances</i> , 2019, 37, 107401.	6.0	130
41	Robust biodegradation of naproxen and diclofenac by laccase immobilized using electrospun nanofibers with enhanced stability and reusability. <i>Materials Science and Engineering C</i> , 2019, 103, 109789.	3.8	81
42	Laccase Immobilized onto Zirconia-Silica Hybrid Doped with Cu ²⁺ as an Effective Biocatalytic System for Decolorization of Dyes. <i>Materials</i> , 2019, 12, 1252.	1.3	33
43	The role of novel lignosulfonate-based sorbent in a sorption mechanism of active pharmaceutical ingredient: batch adsorption tests and interaction study. <i>Adsorption</i> , 2019, 25, 865-880.	1.4	16
44	Bioconversion of xylose to xylonic acid via co-immobilized dehydrogenases for conjunct cofactor regeneration. <i>Bioorganic Chemistry</i> , 2019, 93, 102747.	2.0	15
45	Advanced Ga ₂ O ₃ /Lignin and ZrO ₂ /Lignin Hybrid Microplatforms for Glucose Oxidase Immobilization: Evaluation of Biosensing Properties by Catalytic Glucose Oxidation. <i>Catalysts</i> , 2019, 9, 1044.	1.6	18
46	Removal of nickel(II) and lead(II) ions from aqueous solution using peat as a low-cost adsorbent: A kinetic and equilibrium study. <i>Arabian Journal of Chemistry</i> , 2018, 11, 1209-1222.	2.3	129
47	The development of zirconia/silica hybrids for the adsorption and controlled release of active pharmaceutical ingredients. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 545, 39-50.	2.3	19
48	Physicochemical and catalytic properties of acylase I from <i>Aspergillus melleus</i> immobilized on amino- and carbonyl-grafted silica. <i>Biotechnology Progress</i> , 2018, 34, 767-777.	1.3	12
49	The effect of operational parameters on the biodegradation of bisphenols by <i>Trametes versicolor</i> laccase immobilized on <i>Hippospongia communis</i> spongin scaffolds. <i>Science of the Total Environment</i> , 2018, 615, 784-795.	3.9	143
50	Carbon paste electrode based on functional GOx/silica-lignin system to prepare an amperometric glucose biosensor. <i>Sensors and Actuators B: Chemical</i> , 2018, 256, 176-185.	4.0	112
51	Titania/lignin hybrid materials as a novel support for α-amylase immobilization: A comprehensive study. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 162, 90-97.	2.5	47
52	An organofunctionalized MgO-SiO ₂ hybrid support and its performance in the immobilization of lipase from <i>Candida rugosa</i> . <i>Korean Journal of Chemical Engineering</i> , 2018, 35, 2220-2231.	1.2	7
53	Magnetic biocomposites as support for trypsin immobilization: application for protein digestion. <i>New Biotechnology</i> , 2018, 44, S131-S132.	2.4	1
54	Synergistic Degradation of Dye Wastewaters Using Binary or Ternary Oxide Systems with Immobilized Laccase. <i>Catalysts</i> , 2018, 8, 402.	1.6	73

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55	Degradation of bisphenols using immobilized laccase supported onto biopolymer marine sponge scaffolds: Effect of operational parameters on removal efficiency. <i>New Biotechnology</i> , 2018, 44, S163.	2.4	3
56	Upgrading of Biomass Monosaccharides by Immobilized Glucose Dehydrogenase and Xylose Dehydrogenase. <i>ChemCatChem</i> , 2018, 10, 5164-5173.	1.8	16
57	Developments in support materials for immobilization of oxidoreductases: A comprehensive review. <i>Advances in Colloid and Interface Science</i> , 2018, 258, 1-20.	7.0	203
58	A General Overview of Support Materials for Enzyme Immobilization: Characteristics, Properties, Practical Utility. <i>Catalysts</i> , 2018, 8, 92.	1.6	626
59	Biopolymers conjugated with magnetite as support materials for trypsin immobilization and protein digestion. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 169, 118-125.	2.5	37
60	Zaawansowane funkcjonalne materiały wytwarzane z udziałem substancji pochodzenia naturalnego. <i>Przemysł Chemiczny</i> , 2018, 1, 52-62.	0.0	0
61	Magnetite nanoparticles conjugated with lignin: A physicochemical and magnetic study. <i>Applied Surface Science</i> , 2017, 422, 94-103.	3.1	28
62	High-performance removal of acids and furans from wheat straw pretreatment liquid by diananofiltration. <i>Separation Science and Technology</i> , 2017, 52, 1901-1912.	1.3	10
63	Lipase B from <i>Candida antarctica</i> Immobilized on a Silica-Lignin Matrix as a Stable and Reusable Biocatalytic System. <i>Catalysts</i> , 2017, 7, 14.	1.6	36
64	Immobilization of Cellulase on a Functional Inorganic-Organic Hybrid Support: Stability and Kinetic Study. <i>Catalysts</i> , 2017, 7, 374.	1.6	46
65	Spongin-Based Scaffolds from <i>Hippospongia communis</i> Demosponge as an Effective Support for Lipase Immobilization. <i>Catalysts</i> , 2017, 7, 147.	1.6	35
66	Active MgO-SiO ₂ hybrid material for organic dye removal: A mechanism and interaction study of the adsorption of C.I. Acid Blue 29 and C.I. Basic Blue 9. <i>Journal of Environmental Management</i> , 2017, 204, 123-135.	3.8	37
67	<i>Candida antarctica</i> Lipase B Immobilized onto Chitin Conjugated with POSS® Compounds: Useful Tool for Rapeseed Oil Conversion. <i>International Journal of Molecular Sciences</i> , 2016, 17, 1581.	1.8	13
68	Sodium Copper Chlorophyllin Immobilization onto <i>Hippospongia communis</i> Marine Demosponge Skeleton and Its Antibacterial Activity. <i>International Journal of Molecular Sciences</i> , 2016, 17, 1564.	1.8	25
69	<i>Luffa cylindrica</i> sponges as a thermally and chemically stable support for <i>Aspergillus niger</i> lipase. <i>Biotechnology Progress</i> , 2016, 32, 657-665.	1.3	20
70	Marine sponge skeleton photosensitized by copper phthalocyanine: A catalyst for Rhodamine B degradation. <i>Open Chemistry</i> , 2016, 14, 243-254.	1.0	29
71	Saw-sedge <i>Cladium mariscus</i> as a functional low-cost adsorbent for effective removal of 2,4-dichlorophenoxyacetic acid from aqueous systems. <i>Adsorption</i> , 2016, 22, 517-529.	1.4	15
72	Anthocyanin dye conjugated with <i>Hippospongia communis</i> marine demosponge skeleton and its antiradical activity. <i>Dyes and Pigments</i> , 2016, 134, 541-552.	2.0	34

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73	Immobilization of <i>Amano Lipase A</i> onto Stober silica surface: process characterization and kinetic studies. <i>Open Chemistry</i> , 2015, 13, .	1.0	30
74	Chitin-Lignin Material as a Novel Matrix for Enzyme Immobilization. <i>Marine Drugs</i> , 2015, 13, 2424-2446.	2.2	70
75	Adsorption of C.I. Natural Red 4 onto Spongin Skeleton of Marine Demosponge. <i>Materials</i> , 2015, 8, 96-116.	1.3	36
76	Kraft lignin/silica-AgNPs as a functional material with antibacterial activity. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 134, 220-228.	2.5	90
77	The influence of addition of a catalyst and chelating agent on the properties of titanium dioxide synthesized via the sol-gel method. <i>Journal of Sol-Gel Science and Technology</i> , 2015, 75, 264-278.	1.1	37
78	Synthesis of nanostructured chitin-hematite composites under extreme biomimetic conditions. <i>RSC Advances</i> , 2014, 4, 61743-61752.	1.7	53
79	Enzyme immobilization by adsorption: a review. <i>Adsorption</i> , 2014, 20, 801-821.	1.4	676
80	The sol-gel approach as a method of synthesis of $x\text{MgO} \cdot y\text{SiO}_2$ powder with defined physicochemical properties including crystalline structure. <i>Journal of Sol-Gel Science and Technology</i> , 2014, 71, 501-513.	1.1	27
81	Silica/lignosulfonate hybrid materials: Preparation and characterization. <i>Open Chemistry</i> , 2014, 12, 719-735.	1.0	27
82	Amano Lipase A grafting onto a silica surface. <i>Biotechnologia</i> , 2013, 1, 51-53.	0.3	0