Polyethylenimine: a very useful ionic polymer in the de biocatalysts

Journal of Materials Chemistry B

5, 7461-7490

DOI: 10.1039/c7tb01639e

Citation Report

#	Article	IF	Citations
1	Synthesis of Benzyl Acetate Catalyzed by Lipase Immobilized in Nontoxic Chitosan-Polyphosphate Beads. Molecules, 2017, 22, 2165.	1.7	63
2	An aptamer@AuNP-modified POSSâ€“polyethylenimine hybrid affinity monolith with a high aptamer coverage density for sensitive and selective recognition of ochratoxin A. Journal of Materials Chemistry B, 2018, 6, 1965-1972.	2.9	29
3	Enzyme Immobilization on Inorganic Surfaces for Membrane Reactor Applications: Mass Transfer Challenges, Enzyme Leakage and Reuse of Materials. Advanced Synthesis and Catalysis, 2018, 360, 2578-2607.	2.1	130
4	Enzymatic production of natural sweetener trilobatin from citrus flavanone naringin using immobilised Î±â€<scp>l</scp>â€rhamnosidase as the catalyst. International Journal of Food Science and Technology, 2018, 53, 2097-2103.	1.3	14
5	Improving the stability and reusability of dextranase by immobilization on polyethylenimine modified magnetic particles. New Journal of Chemistry, 2018, 42, 8391-8399.	1.4	13
6	Comparison of random and gradient amino functionalized poly(2â€oxazoline)s: Can the transfection efficiency be tuned by the macromolecular structure?. Journal of Polymer Science Part A, 2018, 56, 1210-1224.	2.5	5
7	Highly enhancing the characteristics of immobilized thermostable Î²-glucosidase by Zn2+. Process Biochemistry, 2018, 66, 89-96.	1.8	10
8	1,3â€Regiospecific ethanolysis of soybean oil catalyzed by crosslinked porcine pancreas lipase aggregates. Biotechnology Progress, 2018, 34, 910-920.	1.3	27
9	Immobilization of peroxidase on polypyrrole-cellulose-graphene oxide nanocomposite via non-covalent interactions for the degradation of Reactive Blue 4 dye. Chemosphere, 2018, 202, 198-207.	4.2	66
10	Production of Omegas-6 and 9 from the Hydrolysis of AÃ§aÃ-and Buriti Oils by Lipase Immobilized on a Hydrophobic Support. Molecules, 2018, 23, 3015.	1.7	16
11	Immobilization of Eversa Lipase on Octyl Agarose Beads and Preliminary Characterization of Stability and Activity Features. Catalysts, 2018, 8, 511.	1.6	49
12	Highly Flexible and Transparent Polyionicâ€Skin Triboelectric Nanogenerator for Biomechanical Motion Harvesting. Advanced Energy Materials, 2019, 9, 1803183.	10.2	72
13	Preparation of Magnetic Cross-Linked Amyloglucosidase Aggregates: Solving Some Activity Problems. Catalysts, 2018, 8, 496.	1.6	32
14	Surface-Functionalized Mesoporous Nanoparticles as Heterogeneous Supports To Transfer Bifunctional Catalysts into Organic Solvents for Tandem Catalysis. ACS Applied Nano Materials, 2018, 1, 6378-6386.	2.4	28
15	Branched Poly(ethylene imine)s as Antiâ€algal and Antiâ€cyanobacterial Agents with Selective Flocculation Behavior to Cyanobacteria over Algae. Macromolecular Bioscience, 2018, 18, e1800187.	2.1	7
16	A novel phosphoester-based cationic co-polymer nanocarrier delivers chimeric antigen receptor plasmid and exhibits anti-tumor effect. RSC Advances, 2018, 8, 14975-14982.	1.7	16
17	Surface hydrophilic modification of PVDF membranes by trace amounts of tannin and polyethyleneimine. Applied Surface Science, 2018, 457, 695-704.	3.1	74
18	Synthesis and continuous catalytic application of alkaline protease nanoflowersâ€“PVA composite hydrogel. Catalysis Communications, 2018, 116, 5-9.	1.6	32

#	Article	IF	Citations
19	Enzyme based amperometric biosensors. Current Opinion in Electrochemistry, 2018, 10, 157-173.	2.5	153
20	Multiscale immobilized lipase for rapid separation and continuous catalysis. New Journal of Chemistry, 2018, 42, 13471-13478.	1.4	18
21	Enzymeâ€“Polymer Conjugates to Enhance Enzyme Shelf Life in a Liquid Detergent Formulation. Macromolecular Bioscience, 2018, 18, e1800095.	2.1	19
22	Design of biocatalysts for efficient catalytic processes. Current Opinion in Chemical Engineering, 2019, 26, 1-8.	3.8	24
23	Nanoparticle-siRNA: a potential strategy for ovarian cancer therapy?. Nanomedicine, 2019, 14, 2083-2100.	1.7	29
24	Preparation of immobilized/stabilized biocatalysts of Î²â€glucosidases from different sources: Importance of the support active groups and the immobilization protocol. Biotechnology Progress, 2019, 35, e2890.	1.3	5
25	Optimized immobilization of polygalacturonase from Aspergillus niger following different protocols: Improved stability and activity under drastic conditions. International Journal of Biological Macromolecules, 2019, 138, 234-243.	3.6	41
26	Increasing the Enzyme Loading Capacity of Porous Supports by a Layer-by-Layer Immobilization Strategy Using PEI as Glue. Catalysts, 2019, 9, 576.	1.6	39
27	siRNA nanotherapeutics: a promising strategy for antiâ€HBV therapy. IET Nanobiotechnology, 2019, 13, 457-463.	1.9	8
28	Dextran Aldehyde in Biocatalysis: More Than a Mere Immobilization System. Catalysts, 2019, 9, 622.	1.6	32
29	Confinement of Candida Antarctica Lipase B in a Multifunctional Cyclodextrin-Derived Silicified Hydrogel and Its Application as Enzymatic Nanoreactor. ACS Applied Bio Materials, 2019, 2, 5568-5581.	2.3	8
30	Graphene Oxide Nanocomposite Hydrogel Beads for Removal of Selenium in Contaminated Water. ACS Applied Polymer Materials, 2019, 1, 2668-2679.	2.0	45
31	Review of recent advances in polyethylenimine crosslinked polymer gels used for conformance control applications. Polymer Bulletin, 2019, 76, 6001-6029.	1.7	51
32	A cryogel-based bioreactor for water treatment applications. Water Research, 2019, 153, 324-334.	5.3	31
33	Cyclodextrin glucosyltransferase immobilization on polydopamine-coated Fe3O4 nanoparticles in the presence of polyethyleneimine for efficient Î²-cyclodextrin production. Biochemical Engineering Journal, 2019, 150, 107264.	1.8	16
34	Immobilization of lipase from Pseudomonas fluorescens on glyoxyl-octyl-agarose beads: Improved stability and reusability. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2019, 1867, 741-747.	1.1	43
35	Synthesis of magnetic nanoflower immobilized lipase and its continuous catalytic application. New Journal of Chemistry, 2019, 43, 11082-11090.	1.4	46
36	Reversible Twoâ€Enzyme Coimmobilization on pHâ€Responsive Imprinted Monolith for Glucose Detection. Biotechnology Journal, 2019, 14, e1900028.	1.8	8

#	Article	IF	Citations
37	Enzymatic hydrolysis of starch into sugars is influenced by microgel assembly. Biotechnology Reports (Amsterdam, Netherlands), 2019, 22, e00342.	2.1	13
38	Improvement of Interfacial Interaction between Hydrophilic Starch Film and Hydrophobic Biodegradable Coating. ACS Sustainable Chemistry and Engineering, 2019, 7, 9506-9514.	3.2	39
39	An efficient protein immobilization strategy: protein encapsulated in nano molecular cages. Journal of Chemical Technology and Biotechnology, 2019, 94, 2248-2255.	1.6	5
40	Improvement of lipase activity by synergistic immobilization on polyurethane and its application for large-scale synthesizing vitamin A palmitate. Preparative Biochemistry and Biotechnology, 2019, 49, 485-492.	1.0	5
41	Immobilization of lipases on hydrophobic supports: immobilization mechanism, advantages, problems, and solutions. Biotechnology Advances, 2019, 37, 746-770.	6.0	409
42	Sensitive detection of Trifluralin in untreated human plasma samples using reduced graphene oxide modified by polyethylene imine and silver nanoparticles: A new platform on the analysis of pesticides and chemical injuries. Microchemical Journal, 2019, 147, 741-748.	2.3	22
43	Efficient Copper Removal from an Aqueous Anvironment using a Novel and Hybrid Nanoadsorbent Based on Derived-Polyethyleneimine Linked to Silica Magnetic Nanocomposites. Nanomaterials, 2019, 9, 209.	1.9	21
44	A novel strategy to synthesize dualâ€responsive polymeric nanocarriers for investigating the activity and stability of immobilized pectinase. Biotechnology and Applied Biochemistry, 2019, 66, 376-388.	1.4	4
45	A Stable Anti-Fouling Coating on PVDF Membrane Constructed of Polyphenol Tannic Acid, Polyethyleneimine and Metal Ion. Polymers, 2019, 11, 1975.	2.0	21
46	Functionalization of Electrospun Poly(Acrylonitrile-co-Styrene/Pyrrole) Copolymer Nanofibers for Using as a High-performance Carrier for Laccase Immobilization. Fibers and Polymers, 2019, 20, 2268-2279.	1.1	12
47	Genipin as An Emergent Tool in the Design of Biocatalysts: Mechanism of Reaction and Applications. Catalysts, 2019, 9, 1035.	1.6	55
48	A visualized colorimetric detection strategy for heparin in serum using a metal-free polymer nanozyme. Microchemical Journal, 2019, 145, 864-871.	2.3	20
49	Production of low-dosage lactose milk using lactase immobilised in hydrogel. International Dairy Journal, 2019, 92, 77-83.	1.5	21
50	Immobilization on octylâ€agarose beads and some catalytic features of commercial preparations of lipase a from Candida antarctica (Novocor ADL): Comparison with immobilized lipase B from Candida antarctica. Biotechnology Progress, 2019, 35, e2735.	1.3	44
51	Microfluidic immobilized enzyme reactors for continuous biocatalysis. Reaction Chemistry and Engineering, 2020, 5, 9-32.	1.9	82
52	Coimmobilization of different lipases: Simple layer by layer enzyme spatial ordering. International Journal of Biological Macromolecules, 2020, 145, 856-864.	3.6	37
53	Immobilization of formate dehydrogenase on polyethylenimineâ€grafted graphene oxide with kinetics and stability study. Engineering in Life Sciences, 2020, 20, 104-111.	2.0	27
54	Light-activated oxygen self-supplied starving therapy in near-infrared (NIR) window and adjuvant hyperthermia-induced tumor ablation with an augmented sensitivity. Biomaterials, 2020, 234, 119771.	5.7	59

#	Article	IF	Citations
55	Novel halochromic cellulose nanowhiskers from rice straw: Visual detection of urea. Carbohydrate Polymers, 2020, 231, 115740.	5.1	45
56	Selective separation of Cs-contaminated clay from soil using polyethylenimine-coated magnetic nanoparticles. Science of the Total Environment, 2020, 706, 136020.	3.9	29
57	Parameters necessary to define an immobilized enzyme preparation. Process Biochemistry, 2020, 90, 66-80.	1.8	306
58	Selection of crosslinkers and control of microstructure of vapor-phase crosslinked composite membranes for organic solvent nanofiltration. Journal of Membrane Science, 2020, 616, 118582.	4.1	31
59	Enzyme production of<scp>d</scp>-gluconic acid and glucose oxidase: successful tales of cascade reactions. Catalysis Science and Technology, 2020, 10, 5740-5771.	2.1	80
60	Effects of the cross-linker on the performance and stability of enzymatic electrocatalytic films of glucose oxidase and dimethylferrocene-modified linear poly(ethyleneimine). Electrochimica Acta, 2020, 337, 135782.	2.6	11
61	Chitosan based pH-responsive polymeric prodrug vector for enhanced tumor targeted co-delivery of doxorubicin and siRNA. Carbohydrate Polymers, 2020, 250, 116781.	5.1	44
62	Immobilization of phospholipase D on macroporous SiO2/cationic polymer nano-composited support for the highly efficient synthesis of phosphatidylserine. Enzyme and Microbial Technology, 2020, 142, 109696.	1.6	3
63	Multi-Combilipases: Co-Immobilizing Lipases with Very Different Stabilities Combining Immobilization via Interfacial Activation and Ion Exchange. The Reuse of the Most Stable Co-Immobilized Enzymes after Inactivation of the Least Stable Ones. Catalysts, 2020, 10, 1207.	1.6	28
64	Flexible and optimized carbon paste electrodes for direct electron transfer-based glucose biofuel cell fed by various physiological fluids. Applied Nanoscience (Switzerland), 2020, 10, 4315-4324.	1.6	14
65	Developments in the Use of Lipase Transesterification for Biodiesel Production from Animal Fat Waste. Applied Sciences (Switzerland), 2020, 10, 5085.	1.3	41
66	Enzyme-Coated Micro-Crystals: An Almost Forgotten but Very Simple and Elegant Immobilization Strategy. Catalysts, 2020, 10, 891.	1.6	35
67	Optimization of Carbon Cloth Bioelectrodes for Enzyme-based Biofuel cell for Wearable Bioelectronics. , 2020, , .		3
68	Composites of Crosslinked Aggregates of EversaÂ® Transform and Magnetic Nanoparticles. Performance in the Ethanolysis of Soybean Oil. Catalysts, 2020, 10, 817.	1.6	19
69	Glucose Oxidase Immobilized on Magnetic Zirconia: Controlling Catalytic Performance and Stability. ACS Omega, 2020, 5, 12329-12338.	1.6	10
70	One Pot Use of Combilipases for Full Modification of Oils and Fats: Multifunctional and Heterogeneous Substrates. Catalysts, 2020, 10, 605.	1.6	55
71	Silk Fibroin: An Emerging Biocompatible Material for Application of Enzymes and Whole Cells in Bioelectronics and Bioanalytical Sciences. ACS Biomaterials Science and Engineering, 2020, 6, 4337-4355.	2.6	38
72	Stabilization of b-Glucuronidase by Immobilization in Magnetic-Silica Hybrid Supports. Catalysts, 2020, 10, 669.	1.6	11

#	Article	IF	Citations
73	Immobilization of Naringinase from Aspergillus Niger on a Magnetic Polysaccharide Carrier. Molecules, 2020, 25, 2731.	1.7	15
74	Immobilized Biocatalysts of EversaÂ® Transform 2.0 and Lipase from Thermomyces Lanuginosus: Comparison of Some Properties and Performance in Biodiesel Production. Catalysts, 2020, 10, 738.	1.6	22
75	Enzyme co-immobilization: Always the biocatalyst designers' choiceâ€¦or not?. Biotechnology Advances, 2021, 51, 107584.	6.0	152
76	PEI-crosslinked lipase on the surface of magnetic microspheres and its characteristics. Colloids and Surfaces B: Biointerfaces, 2020, 189, 110874.	2.5	21
77	Use of polyethylenimine to produce immobilized lipase multilayers biocatalysts with very high volumetric activity using octyl-agarose beads: Avoiding enzyme release during multilayer production. Enzyme and Microbial Technology, 2020, 137, 109535.	1.6	34
78	Reduction of nitroarenes by magnetically recoverable nitroreductase immobilized on Fe3O4 nanoparticles. Scientific Reports, 2020, 10, 2810.	1.6	10
79	Influence of albumin interaction on corrosion resistance of sintered iron biomaterials with polyethyleneimine coating. Applied Surface Science, 2020, 509, 145379.	3.1	23
80	On the taught new tricks of enzymes immobilization: An all-inclusive overview. Reactive and Functional Polymers, 2020, 152, 104613.	2.0	154
81	Co-immobilization multienzyme nanoreactor with co-factor regeneration for conversion of CO2. International Journal of Biological Macromolecules, 2020, 155, 110-118.	3.6	82
82	A new heterofunctional support for enzyme immobilization: PEI functionalized Fe3O4 MNPs activated with divinyl sulfone. Application in the immobilization of lipase from Thermomyces lanuginosus. Enzyme and Microbial Technology, 2020, 138, 109560.	1.6	76
83	Design for preparation of more active cross-linked enzyme aggregates of Burkholderia cepacia lipase using palm fiber residue. Bioprocess and Biosystems Engineering, 2021, 44, 57-66.	1.7	18
84	Enzymeless Electrochemical Glucose Sensor Based on Carboxylated Multiwalled Carbon Nanotubes Decorated with Nickel (II) Electrocatalyst and Selfâ€assembled Molecularly Imprinted Polyethylenimine. Electroanalysis, 2021, 33, 111-119.	1.5	7
85	Mesoporous silica nanoparticles modified with N-rich polymer as a potentially environmentally-friendly delivery system for pesticides. Microporous and Mesoporous Materials, 2021, 310, 110663.	2.2	30
86	Immobilization of formate dehydrogenase in metal organic frameworks for enhanced conversion of carbon dioxide to formate. Chemosphere, 2021, 267, 128921.	4.2	22
87	Metal ions coordinated immobilization of phenylalanine dehydrogenase by GOâ€PEI with high activity recovery and enhanced stability. Journal of Chemical Technology and Biotechnology, 2021, 96, 1049-1056.	1.6	3
88	Versatile poly(maltose) micro/nanoparticles with tunable surface functionality as a biomaterial. Journal of Applied Polymer Science, 2021, 138, 49906.	1.3	3
89	Liquid lipase preparations designed for industrial production of biodiesel. Is it really an optimal solution?. Renewable Energy, 2021, 164, 1566-1587.	4.3	88
90	A facile preparation of immobilized naringinase on polyethyleneimine-modified Fe₃O₄ magnetic nanomaterials with high activity. RSC Advances, 2021, 11, 14568-14577.	1.7	10

#	Article	IF	Citations
91	Hybrid Nanosystems for Biomedical Applications. ACS Nano, 2021, 15, 2099-2142.	7.3	100
92	Metalâ€“Organic Framework-Based Enzyme Biocomposites. Chemical Reviews, 2021, 121, 1077-1129.	23.0	372
93	Enzymes hosted in redox-active ionically cross-linked polyelectrolyte networks enable more efficient biofuel cells. Soft Matter, 2021, 17, 5240-5247.	1.2	10
94	Amines and Amine-boranes. RSC Nanoscience and Nanotechnology, 2021, , 130-156.	0.2	2
95	Evaluation of the role of the DNA surface for enhancing the activity of scaffolded enzymes. Chemical Communications, 2021, 57, 3925-3928.	2.2	12
96	Nature Inspired Multienzyme Immobilization: Strategies and Concepts. ACS Applied Bio Materials, 2021, 4, 1077-1114.	2.3	55
97	Polymer supported cross-linked enzyme aggregates (CLEAs) of lipase B from Candida antarctica: An efficient and recyclable biocatalyst for reactions in both aqueous and organic media. Biocatalysis and Biotransformation, 2022, 40, 182-194.	1.1	5
98	Effect of Concentrated Salts Solutions on the Stability of Immobilized Enzymes: Influence of Inactivation Conditions and Immobilization Protocol. Molecules, 2021, 26, 968.	1.7	17
99	Designing of Nanomaterials-Based Enzymatic Biosensors: Synthesis, Properties, and Applications. Electrochem, 2021, 2, 149-184.	1.7	48
100	Green Production of Cladribine by Using Immobilized 2â€²-Deoxyribosyltransferase from Lactobacillus delbrueckii Stabilized through a Double Covalent/Entrapment Technology. Biomolecules, 2021, 11, 657.	1.8	6
101	Immobilization of the Peroxygenase from Agrocybe aegerita. The Effect of the Immobilization pH on the Features of an Ionically Exchanged Dimeric Peroxygenase. Catalysts, 2021, 11, 560.	1.6	12
103	The Î²-galactosidase immobilization protocol determines its performance as catalysts in the kinetically controlled synthesis of lactulose. International Journal of Biological Macromolecules, 2021, 176, 468-478.	3.6	18
104	Oxidation of 2,5-diformfylfuran to 2,5-furandicarboxylic acid catalyzed by Candida antarctica Lipase B immobilized in a cyclodextrin-templated mesoporous silica. The critical role of pore characteristics on the catalytic performance. Colloids and Surfaces B: Biointerfaces, 2021, 200, 111606.	2.5	7
105	Development of Covalent Chitosan-Polyethylenimine Derivatives as Gene Delivery Vehicle: Synthesis, Characterization, and Evaluation. International Journal of Molecular Sciences, 2021, 22, 3828.	1.8	8
106	Utilization of rGOâ€PEIâ€•supported AgNPs for sensitive recognition of deltamethrin in human plasma samples: A new platform for the biomedical analysis of pesticides in human biofluids. Journal of Molecular Recognition, 2021, 34, e2900.	1.1	4
107	Fluorescent Nanodiamondâ€“Nanogels for Nanoscale Sensing and Photodynamic Applications. Advanced NanoBiomed Research, 2021, 1, 2000101.	1.7	5
108	Laccase and Tyrosinase Biosensors Used in the Determination of Hydroxycinnamic Acids. International Journal of Molecular Sciences, 2021, 22, 4811.	1.8	16
109	Immobilizing Redox Enzyme on Amino Functional Group-Integrated Tailor-Made Polyester Textile: High Loading, Stability, and Application in a Bio-Fenton System. ACS Sustainable Chemistry and Engineering, 2021, 9, 8879-8894.	3.2	7

#	Article	IF	Citations
110	Surface-modified elastomeric nanofluidic devices for single nanoparticle trapping. Microsystems and Nanoengineering, 2021, 7, 46.	3.4	2
111	Chemical and physical Chitosan modification for designing enzymatic industrial biocatalysts: How to choose the best strategy?. International Journal of Biological Macromolecules, 2021, 181, 1124-1170.	3.6	93
113	Film-like chitin/polyethylenimine biosorbent for highly efficient removal of uranyl-carbonate compounds from water. Journal of Environmental Chemical Engineering, 2021, 9, 105340.	3.3	11
114	Dopamineâ€polyethyleneimine coâ€deposition of a capillary for Î±â€glucosidase immobilization and its application in enzyme inhibitor screening. Electrophoresis, 2021, 42, 2081-2086.	1.3	2
115	Green Wood Adhesives from One-Pot Coacervation of Folic Acid and Branched Poly(ethylene imine). ACS Applied Bio Materials, 2021, 4, 7314-7321.	2.3	10
116	Ultrafast organocatalytic <scp>ringâ€opening</scp> polymerization of <scp>Nâ€sulfonyl</scp> aziridine in the melt. Journal of Polymer Science, 2021, 59, 2972-2979.	2.0	6
117	An overview on biocatalysts immobilization on textiles: Preparation, progress and application in wastewater treatment. Chemosphere, 2021, 279, 130481.	4.2	33
118	Immobilization of aldehyde dehydrogenase on montmorillonite using polyethyleneimine as a stabilization and bridging agent. Applied Clay Science, 2021, 212, 106216.	2.6	5
119	A new insight in gellan microspheres application to capture a plasmid DNA vaccine from an Escherichia coli lysate. Separation and Purification Technology, 2021, 274, 119013.	3.9	3
120	Stabilization of enzymes via immobilization: Multipoint covalent attachment and other stabilization strategies. Biotechnology Advances, 2021, 52, 107821.	6.0	280
121	Î²-Galactosidase from Kluyveromyces lactis: Characterization, production, immobilization and applications - A review. International Journal of Biological Macromolecules, 2021, 191, 881-898.	3.6	39
122	In-Cell Crosslinked Enzymes: Improving Bacillus megaterium whole-cell biocatalyst stability for the decarboxylation of ferulic acid. Process Biochemistry, 2021, 110, 71-84.	1.8	4
123	Adhesion-enhanced coral cells with self-healing coating. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 628, 127337.	2.3	3
124	Biosynthesis of benzyl cinnamate using an efficient immobilized lipase entrapped in nano-molecular cages. Food Chemistry, 2021, 364, 130428.	4.2	23
125	Effect of ionic liquids on catalytic characteristics of hyperthermophilic and halophilic phenylalanine dehydrogenase and mechanism study. Biochemical Engineering Journal, 2021, 176, 108175.	1.8	5
126	Solvent and catalyst-free modification of hyperbranched polyethyleneimines by ring-opening-addition or ring-opening-polymerization of N-sulfonyl aziridines. Polymer Chemistry, 2021, 12, 1787-1796.	1.9	16
127	Immobilization of pectinase on polyethyleneimine based support via spontaneous amino-yne click reaction. Food and Bioproducts Processing, 2020, 122, 159-168.	1.8	17
128	Approach to the preparation of temperatureâ€sensitive poly(Nâ€isopropylacrylamide)/polyethylenimine microgel. Micro and Nano Letters, 2019, 14, 404-408.	0.6	5

#	Article	IF	Citations
129	Surface-coated magnetic nanostructured materials for robust bio-catalysis and biomedical applications-A review. Journal of Advanced Research, 2022, 38, 157-177.	4.4	22
130	Stabilization and operational selectivity alteration of Lipozyme 435 by its coating with polyethyleneimine: Comparison of the biocatalyst performance in the synthesis of xylose fatty esters. International Journal of Biological Macromolecules, 2021, 192, 665-674.	3.6	10
131	Very Strong but Reversible Immobilization of Enzymes on Supports Coated with Ionic Polymers. Methods in Molecular Biology, 2020, 2100, 129-141.	0.4	2
132	Anisotropic silver nanowire dielectric composites for self-healable triboelectric sensors with multi-directional tactile sensitivity. Nano Energy, 2022, 92, 106704.	8.2	16
133	Enhancing water resistance of interface between starch films and acrylated epoxidized soybean oil coating. Progress in Organic Coatings, 2022, 163, 106646.	1.9	7
134	Enzyme immobilization: what have we learned in the past five years?. Biofuels, Bioproducts and Biorefining, 2022, 16, 587-608.	1.9	25
135	Nâ€Type Conjugated Polymer as Multiâ€Functional Interfacial Layer for Highâ€Performance and Ultraâ€Stable Selfâ€Powered Photodetectors Based on Perovskite Nanowires. Advanced Functional Materials, 0, , 2108356.	7.8	8
136	Advanced Enzyme Immobilization Technologies: An Eco-friendly Support, a Polymer-Stabilizing Immobilization Strategy, and an Improved Cofactor Co-immobilization Technique. Methods in Molecular Biology, 2022, 2397, 263-276.	0.4	2
137	Fabrication of Enzyme-Loaded Cartridges Using CO2-Assisted Polymer Compression. Technologies, 2021, 9, 85.	3.0	3
138	Immobilization of glucose oxidase on bioinspired polyphenol coatings as a high-throughput glucose assay platform. RSC Advances, 2021, 11, 39582-39592.	1.7	7
139	Immobilization-Stabilization of Î²-Glucosidase for Implementation of Intensified Hydrolysis of Cellobiose in Continuous Flow Reactors. Catalysts, 2022, 12, 80.	1.6	10
140	Cofactor self-sufficient by co-immobilization of pyridoxal 5â€²-phosphate and lysine decarboxylase for cadaverine production. Bioresource Technology Reports, 2022, 17, 100939.	1.5	2
141	Enzyme immobilization on magnetic nanoparticle supports for enhanced separation and recycling of catalysts. , 2022, , 301-321.		7
142	Waste Management in the Agri-Food Industry: The Conversion of Eggshells, Spent Coffee Grounds, and Brown Onion Skins into Carriers for Lipase Immobilization. Foods, 2022, 11, 409.	1.9	16
143	Omega-3 production by fish oil hydrolysis using a lipase from Burkholderia gladioli BRM58833 immobilized and stabilized by post-immobilization techniques. Biochemistry and Biophysics Reports, 2022, 29, 101193.	0.7	1
144	Development of novel alginateâ€polyethyleneimine cellâ€laden bioink designed for 3D bioprinting of cutaneous wound healing scaffolds. Journal of Applied Polymer Science, 2022, 139, .	1.3	10
145	Low-temperature operating adhesive films capable of in-situ use of moisture with outstanding water-resistant capacity. Journal of Adhesion, 0, , 1-18.	1.8	0
146	Immobilization of Urease onto Modified Egg Shell Membrane through Cross Linking. Iranian Biomedical Journal, 2021, , .	0.4	0

#	Article	IF	Citations
147	Facile mussel-inspired polydopamine-coated 3D-printed bioreactors for continuous flow biocatalysis. Reaction Chemistry and Engineering, 2022, 7, 1053-1060.	1.9	7
148	Characteristics of glucose oxidase immobilized on carbon-encapsulated iron nanoparticles decorated with polyethyleneimine. Polymer Bulletin, 0, , 1.	1.7	0
149	Preparation of a Six-Enzyme Multilayer Combi-Biocatalyst: Reuse of the Most Stable Enzymes after Inactivation of the Least Stable One. ACS Sustainable Chemistry and Engineering, 2022, 10, 3920-3934.	3.2	24
150	Characteristics of Crosslinking Polymers Play Major Roles in Improving the Stability and Catalytic Properties of Immobilized Thermomyces lanuginosus Lipase. International Journal of Molecular Sciences, 2022, 23, 2917.	1.8	3
151	Immobilization, biochemical, thermodynamic, and fruit juice clarification properties of lignocellulosic biomassâ€“derived exo-polygalacturonase from Penicillium paxilli. Biomass Conversion and Biorefinery, 2023, 13, 13181-13196.	2.9	3
152	One-Pot Purification and Immobilization of Phenylalanine Dehydrogenase from Bacillus nanhaiensi by Functional Reduced Graphene Oxide. Marine Biotechnology, 2022, , 1.	1.1	0
153	An overview of poly (amide-amine) dendrimers functionalized chromatographic separation materials. Journal of Chromatography A, 2022, 1669, 462960.	1.8	6
154	Coimmobilization of lipases exhibiting three very different stability ranges. Reuse of the active enzymes and selective discarding of the inactivated ones. International Journal of Biological Macromolecules, 2022, 206, 580-590.	3.6	16
155	Removal of Persistent Sulfamethoxazole and Carbamazepine from Water by Horseradish Peroxidase Encapsulated into Poly(Vinyl Chloride) Electrospun Fibers. International Journal of Molecular Sciences, 2022, 23, 272.	1.8	12
156	Polydopamine mediator for glucose oxidation reaction and its use for membraneless enzymatic biofuel cells. Journal of Industrial and Engineering Chemistry, 2022, 111, 263-271.	2.9	10
157	Biomass-derived nanocellulose aerogel enable highly efficient immobilization of laccase for the degradation of organic pollutants. Bioresource Technology, 2022, 356, 127311.	4.8	19
158	Design of composite nanosupports and applications thereof in enzyme immobilization: A review. Colloids and Surfaces B: Biointerfaces, 2022, 217, 112602.	2.5	31
159	Immobilization impact of GEG-Alg-SPI as a carrier for Aspergillus niger MK981235 inulinase: Kinetics, thermodynamics, and application. Bioresource Technology Reports, 2022, 18, 101099.	1.5	3
160	Chemical modification of clay nanocomposites for the improvement of the catalytic properties of Lipase A from Candida antarctica. Process Biochemistry, 2022, 120, 1-14.	1.8	28
161	Enzymatic glucosylation of citrus flavonoids to enhance their bioactivity and taste as new food additives. Molecular Catalysis, 2022, 528, 112467.	1.0	2
162	Laccase immobilization in polyelectrolyte multilayer membranes for 17Î±-ethynylestradiol removal: Biocatalytic approach for pharmaceuticals degradation. Chemosphere, 2022, 304, 135374.	4.2	5
163	Is enzyme immobilization a mature discipline? Some critical considerations to capitalize on the benefits of immobilization. Chemical Society Reviews, 2022, 51, 6251-6290.	18.7	183
164	Co-immobilization of lipase and laccase on agarose-based supports via layer-by-layer strategy: Effect of diffusional limitations. Biochemical Engineering Journal, 2022, 185, 108533.	1.8	5

#	Article	IF	Citations
165	Covalent Immobilization of Dehydrogenases on Carbon Felt for Reusable Anodes with Effective Electrochemical Cofactor Regeneration. ChemistryOpen, 0, , .	0.9	3
166	Hydrophilic Nonwoven Nanofiber Membranes as Nanostructured Supports for Enzyme Immobilization. ACS Applied Polymer Materials, 2022, 4, 6054-6066.	2.0	5
167	Polyethyleneimine Grafted H ₂ O ₂ â€Oxidized Starch Nanocrystals as a Biomaterial for Adsorptive Removal of Cr(VI). Starch/Staerke, 0, , 2200129.	1.1	0
168	Application of nanotechnology in CAR-T-cell immunotherapy. Chinese Chemical Letters, 2023, 34, 107747.	4.8	5
169	Gum tragacanth for immobilization of Bacillus licheniformis protease: Optimization, thermodynamics and application. Reactive and Functional Polymers, 2022, 179, 105366.	2.0	6
170	Functionalized Controlled Porous Glasses for Producing Radical-Free Hyperpolarized Liquids by Overhauser DNP. Molecules, 2022, 27, 6402.	1.7	3
171	Immobilization-stabilization of the dimeric D-amino acid oxidase from porcine kidney. Process Biochemistry, 2022, 122, 120-128.	1.8	3
172	Waste Derived Supports for Immobilization ofÂLipase TowardsÂEnhancing Efficiency and Reusability of Enzymes. Clean Energy Production Technologies, 2022, , 135-160.	0.3	0
173	Aptasensing of ciprofloxacin residue using graphene oxide modified with gold nanoparticles and branched polyethyleneimine. RSC Advances, 2022, 12, 29602-29612.	1.7	9
174	Research progress on the application of tristate water in preparation of starchâ€based foaming materials. Polymer Engineering and Science, 2022, 62, 3893-3901.	1.5	1
175	Tuning Immobilized Enzyme Features by Combining Solid-Phase Physicochemical Modification and Mineralization. International Journal of Molecular Sciences, 2022, 23, 12808.	1.8	4
176	The preparation of two immobilized levansucrase biocatalysts and their application for the synthesis of lactosucrose. Process Biochemistry, 2022, 122, 248-262.	1.8	3
177	Postimmobilization treatments before applications. , 2023, , 55-85.		0
178	Immobilization of Thermomyces lanuginosus lipase on a new hydrophobic support (Streamline) Tj ETQq1 1 0.784314 rgBT /Overlock 10 110166.	1.6	8
179	Surface Modification of Magnetic ZIF-90 Nanoparticles Improves the Microenvironment of Immobilized Lipase and Its Application in Esterification. Langmuir, 2022, 38, 15384-15393.	1.6	5
180	Enhanced Activity of Enzyme Immobilized on Hydrophobic ZIFâ€8 Modified by Ni²⁺ Ions. Angewandte Chemie, 2023, 135, .	1.6	1
181	Mineralization of Lipase from Thermomyces lanuginosus Immobilized on Methacrylate Beads Bearing Octadecyl Groups to Improve Enzyme Features. Catalysts, 2022, 12, 1552.	1.6	2
182	Polyethyleneimine-Based Drug Delivery Systems for Cancer Theranostics. Journal of Functional Biomaterials, 2023, 14, 12.	1.8	7

#	Article	IF	Citations
183	Enhanced Activity of Enzyme Immobilized on Hydrophobic ZIFâ€8 Modified by Ni²⁺ Ions. Angewandte Chemie - International Edition, 2023, 62, .	7.2	28
184	Boosting the stability of Î²-galactosidase immobilized onto soy-protein isolate-glutaraldehyde-functionalized carrageenan beads. 3 Biotech, 2023, 13, .	1.1	2
185	Biodegradation of acid orange-7 dye by immobilized laccase on functionalized ZSM-5 zeolites: Investigation of the role of functionalization and SiO2/Al2O3 ratio of zeolite on the catalytic performance. Journal of Molecular Structure, 2023, 1278, 134919.	1.8	1
186	Cationic ring-opening polymerization of N-benzylaziridines to polyamines via organic boron. Chemical Communications, 2023, 59, 2982-2985.	2.2	3
187	Construction of electroactive polyamine-enzyme assemblies nondependent on the electrical charge. Synthetic Metals, 2023, 294, 117308.	2.1	2
188	Xylanase covalent binding onto amidated pectin beads: Optimization, thermal, operational and storage stability studies and application. International Journal of Biological Macromolecules, 2023, 236, 124018.	3.6	4
189	Bioelectrochemical synthesis of gluconate by glucose oxidase immobilized in a ferrocene based redox hydrogel. Bioelectrochemistry, 2023, 151, 108398.	2.4	2
190	Carbon nanotubes â€“ PEI â€“ Formate dehydrogenase nano-biointerface for the specific bioelectrochemical reduction of CO2 to formate. Carbon, 2023, 209, 118013.	5.4	2
191	Immobilized short-chain dehydrogenase/reductase on Fe3O4 particles acts as a magnetically recoverable biocatalyst component in patulin bio-detoxification system. Journal of Hazardous Materials, 2023, 448, 130986.	6.5	10
192	Self-Sufficient Reusable Biocatalytic System Outfitted with Multiple Oxidoreductases and Flexible Polypeptide-Based Cofactor Swing Arms. ACS Sustainable Chemistry and Engineering, 2023, 11, 3710-3719.	3.2	5
193	An Overview of Immunosensors and Their Application. , 2023, , 245-290.		0
194	A GO-based biocatalytic membrane prepared by one-step pressure-assisted self-assembly for micropollutants removal. Chemical Engineering Science, 2023, 275, 118740.	1.9	8
210	Immobilization of enzymes on nanomaterials. , 2023, , 419-450.		0
212	A review of lipase immobilization on hydrophobic supports incorporating systematic mapping principles. Reaction Chemistry and Engineering, 2023, 8, 2689-2702.	1.9	1
214	Novel biocatalysts based on enzymes in complexes with nano- and micromaterials. Biophysical Reviews, 2023, 15, 1127-1158.	1.5	1
217	Orthogonal polymerization of aziridine with cyclic carbonates for constructing amphiphilic block copolymers. Polymer Chemistry, 2023, 14, 5034-5039.	1.9	0