Elena Efremenko

List of Publications by Year
in descending order

98	2,180	218381 26	264894 42
papers	citations	h-index	g-index

102	102	102	1582
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The development of a new biosensor based on recombinant E. coli for the direct detection of organophosphorus neurotoxins. Biosensors and Bioelectronics, 1996, 11, 991-1000.	5.3	176
2	Production of biofuels from pretreated microalgae biomass by anaerobic fermentation with immobilized Clostridium acetobutylicum cells. Bioresource Technology, 2012, 114, 342-348.	4.8	155
3	Enzymes for Detoxification of Various Mycotoxins: Origins and Mechanisms of Catalytic Action. Molecules, 2019, 24, 2362.	1.7	105
4	A simple and highly effective catalytic nanozyme scavenger for organophosphorus neurotoxins. Journal of Controlled Release, 2017, 247, 175-181.	4.8	86
5	Purification of His6â€“organophosphate hydrolase using monolithic supermacroporous polyacrylamide cryogels developed for immobilized metal affinity chromatography. Applied Microbiology and Biotechnology, 2006, 70, 558-563.	1.7	65
6	Production of various organic acids from different renewable sources by immobilized cells in the regimes of separate hydrolysis and fermentation (SHF) and simultaneous saccharification and fermentation (SFF). Bioresource Technology, 2019, 272, 1-9.	4.8	64
7	Theoretical evaluation of suspected enzymatic hydrolysis of Novichok agents. Catalysis Communications, 2019, 120, 91-94.	1.6	52
8	Long-Term Storage and Use of Artificially Immobilized Anaerobic Sludge as a Powerful Biocatalyst for Conversion of Various Wastes Including Those Containing Xenobiotics to Biogas. Catalysts, 2019, 9, 326.	1.6	51
9	Title is missing!. Russian Chemical Bulletin, 2001, 50, 1826-1832.	0.4	48
10	Hydrolysis of organophosphorus pesticides in soil: New opportunities with ecocompatible immobilized His6-OPH. International Biodeterioration and Biodegradation, 2012, 68, 18-23.	1.9	45
11	Complex effect of lignocellulosic biomass pretreatment with 1-butyl-3-methylimidazolium chloride ionic liquid on various aspects of ethanol and fumaric acid production by immobilized cells within SSF. Bioresource Technology, 2018, 250, 429-438.	4.8	44
12	Catalytic Characteristics of New Antibacterials Based on Hexahistidine-Containing Organophosphorus Hydrolase. Catalysts, 2017, 7, 271.	1.6	41
13	Properties of hexahistidine-tagged organophosphate hydrolase. Biochemistry (Moscow), 2006, 71, 167-172.	0.7	40
14	Optimization of the Use of His6-OPH-Based Enzymatic Biocatalysts for the Destruction of Chlorpyrifos in Soil. International Journal of Environmental Research and Public Health, 2017, 14, 1438.	1.2	40
15	Extensive hydrolysis of phosphonates as unexpected behaviour of the known His6-organophosphorus hydrolase. Applied Microbiology and Biotechnology, 2016, 100, 5829-5838.	1.7	39
16	Immobilised cells of Pachysolen tannophilus yeast for ethanol production from crude glycerol. New Biotechnology, 2017, 34, 54-58.	2.4	39
17	Enzymatic biosensors for determination of pesticides. Russian Chemical Reviews, 2017, 86, 339-355.	2.5	37
18	Discriminative detection of neurotoxins in multi-component samples. Analytica Chimica Acta, 2001, 444, 179-186.	2.6	35

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19	Immobilized biocatalysts for detoxification of neurotoxic organophosphorous compounds. Biocatalysis and Biotransformation, 2007, 25, 359-364.	1.1	33
20	His6-OPH and Its Stabilized Forms Combating Quorum Sensing Molecules of Gram-Negative Bacteria in Combination with Antibiotics. Jundishapur Journal of Natural Pharmaceutical Products, 2017, 12, .	0.3	30
21	Rhizopus oryzae fungus cells producing L(+)-lactic acid: kinetic and metabolic parameters of free and PVA-cryogel-entrapped mycelium. Applied Microbiology and Biotechnology, 2006, 72, 480-485.	1.7	29
22	Rhodococcus lactonase with organophosphate hydrolase (OPH) activity and His6-tagged OPH with lactonase activity: evolutionary proximity of the enzymes and new possibilities in their application. Applied Microbiology and Biotechnology, 2014, 98, 2647-2656.	1.7	29
23	Kinetic analysis of maturation and denaturation of DsRed, a coral-derived red fluorescent protein. Biochemistry (Moscow), 2001, 66, 1342-1351.	0.7	28
24	Intensification of Organophosphorus Hydrolase Synthesis by Using Substances with Gas-Transport Function. Applied Sciences (Switzerland), 2017, 7, 1305.	1.3	27
25	L(+)-Lactic acid production using poly(vinyl alcohol)-cryogel-entrappedRhizopus oryzae fungal cells. Journal of Chemical Technology and Biotechnology, 2006, 81, 519-522.	1.6	26
26	Effect of dimerization on the catalytic properties of native and chimeric organophosphorus hydrolase determined by molecular modeling of the enzyme structure. Russian Chemical Bulletin, 2012, 61, 449-455.	0.4	26
27	â€œDeceivedâ€•Concentrated Immobilized Cells as Biocatalyst for Intensive Bacterial Cellulose Production from Various Sources. Catalysts, 2018, 8, 33.	1.6	26
28	The effect of long-term preservation of bacterial cells immobilized in poly(vinyl alcohol) cryogel on their viability and biosynthesis of target metabolites. Microbiology, 2007, 76, 336-341.	0.5	25
29	Hybrid proteins with organophosphorus hydrolase activity and fluorescence of deGFP4 protein. Moscow University Chemistry Bulletin, 2011, 66, 92-98.	0.2	24
30	Biomolecular engineering of biocatalysts hydrolyzing neurotoxic organophosphates. Biochimie, 2018, 144, 115-121.	1.3	24
31	Red fluorescent proteins and their properties. Russian Chemical Reviews, 2010, 79, 243-258.	2.5	23
32	Addition of Polybrene improves stability of organophosphate hydrolase immobilized in poly(vinyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2	2.4	22
33	Effect of immobilization on the main dynamic characteristics of the enzymatic oxidation of methane to methanol by bacteria Methylosinus sporium B-2121. Russian Chemical Bulletin, 2008, 57, 1633-1636.	0.4	22
34	Enzymes, Reacting with Organophosphorus Compounds as Detoxifiers: Diversity and Functions. International Journal of Molecular Sciences, 2021, 22, 1761.	1.8	21
35	Polyhistidine-containing organophosphorus hydrolase with outstanding properties. Biocatalysis and Biotransformation, 2007, 25, 103-108.	1.1	20
36	Biosensitive element in the form of immobilized luminescent photobacteria for detecting ecotoxicants in aqueous flowâ€through systems. Luminescence, 2016, 31, 1283-1289.	1.5	20

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37	Novel approach to quorum quenching: rational design of antibacterials in combination with hexahistidine-tagged organophosphorus hydrolase. Biological Chemistry, 2018, 399, 869-879.	1.2	20
38	Biocatalysts based on immobilized cells of microorganisms in the production of bioethanol and biobutanol. Catalysis in Industry, 2011, 3, 41-46.	0.3	19
39	Evaluation of biocidal properties of vegetable oil-based corrosion inhibitors using bioluminescent enzymatic method. Moscow University Chemistry Bulletin, 2015, 70, 197-201.	0.2	19
40	Insertion of an unnatural amino acid into the protein structure: preparation and properties of 3-fluorotyrosine-containing organophosphate hydrolase. Russian Chemical Bulletin, 2006, 55, 369-374.	0.4	17
41	Charges' interaction in polyelectrolyte (nano)complexing of His6-OPH with peptides: Unpredictable results due to imperfect or useless concept?. International Journal of Biological Macromolecules, 2019, 140, 368-376.	3.6	17
42	Prospective Approach to the Anaerobic Bioconversion of Benzo- and Dibenzothiophene Sulfones to Sulfide. Molecules, 2019, 24, 1736.	1.7	17
43	Formation and use of anaerobic consortia for the biotransformation of sulfur-containing extracts from pre-oxidized crude oil and oil fractions. Bioresource Technology, 2021, 319, 124248.	4.8	17
44	Chemical and biological safety: Biosensors and nanotechnological methods for the detection and monitoring of chemical and biological agents. Pure and Applied Chemistry, 2002, 74, 2311-2316.	0.9	16
45	Determination of Minimal Concentrations of Biocorrosion Inhibitors by a Bioluminescence Method. Applied Biochemistry and Microbiology, 2005, 41, 377-381.	0.3	16
46	New enzymatic immobilized biocatalysts for detoxification of organophosphorus compounds. Biocatalysis and Biotransformation, 2005, 23, 103-108.	1.1	16
47	A New Approach to Assess the Effect of Various Humic Compounds on the Metabolic Activity of Cells Participating in Methanogenesis. Sustainability, 2019, 11, 3158.	1.6	16
48	Title is missing!. Biotechnology Letters, 1997, 19, 1067-1071.	1.1	15
49	An approach to the rapid control of oil spill bioremediation by bioluminescent method of intracellular ATP determination. International Biodeterioration and Biodegradation, 2005, 56, 94-100.	1.9	15
50	Bacterial Cellulose Containing Combinations of Antimicrobial Peptides with Various QQ Enzymes as a Prototype of an â€œEnhanced Antibacterialâ€•Dressing: In Silico and In Vitro Data. Pharmaceutics, 2020, 12, 1155.	2.0	15
51	Title is missing!. Biotechnology Letters, 1999, 13, 479-483.	0.5	14
52	Enzymatically Functionalized Composite Materials Based on Nanocellulose and Poly(Vinyl Alcohol) Cryogel and Possessing Antimicrobial Activity. Materials, 2019, 12, 3619.	1.3	14
53	Immobilized Luminescent Bacteria for the Detection of Mycotoxins under Discrete and Flow-Through Conditions. Biosensors, 2019, 9, 63.	2.3	14
54	Unnatural amino acids in enzymes and proteins. Journal of Molecular Catalysis B: Enzymatic, 2000, 10, 47-55.	1.8	13

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55	Aspartic and glutamic acids polymers: preparation and applications in medicinal chemistry and pharmaceutics. Russian Chemical Bulletin, 2018, 67, 614-623.	0.4	13
56	â€œUnity and Struggle of Oppositesâ€•as a Basis for the Functioning of Synthetic Bacterial Immobilized Consortium That Continuously Degrades Organophosphorus Pesticides. Microorganisms, 2022, 10, 1394.	1.6	13
57	Combined Modification of Fiber Materials by Enzymes and Metal Nanoparticles for Chemical and Biological Protection. International Journal of Molecular Sciences, 2022, 23, 1359.	1.8	12
58	Double effect of organic amines (activation and inhibition) on the phosphotriesterase. Journal of Molecular Catalysis B: Enzymatic, 2000, 10, 571-576.	1.8	11
59	Biosensors based on the luminous bacteria Photobaterium phosphoreum immobilized in polyvinyl alcohol cryogel for the monitoring of ecotoxicants. Applied Biochemistry and Microbiology, 2014, 50, 477-482.	0.3	11
60	Nanocatalysts for Oxidative Desulfurization of Liquid Fuel: Modern Solutions and the Perspectives of Application in Hybrid Chemical-Biocatalytic Processes. Catalysts, 2021, 11, 1131.	1.6	11
61	Lactic acid production using free cells of bacteria and filamentous fungi and cells immobilized in polyvinyl alcohol cryogel: A comparative analysis of the characteristics of biocatalysts and processes. Catalysis in Industry, 2016, 8, 280-285.	0.3	10
62	Metal Nanoparticles for Improving Bactericide Functionality of Usual Fibers. Nanomaterials, 2020, 10, 1724.	1.9	10
63	ORGANOPHOSPHORUS NEUROTOXINS. , 2020, , .		10
64	His6-OPH enzyme-based bio-hybrid material for organophosphate detection. Analytical and Bioanalytical Chemistry, 2011, 401, 2631-2638.	1.9	9
65	Model Fuel Oxidation in the Presence of Molybdenum-Containing Catalysts Based on SBA-15 with Hydrophobic Properties. ACS Omega, 2021, 6, 26932-26941.	1.6	9
66	â€œNature-likeâ€•Cryoimmobilization of Phototrophic Microorganisms: New Opportunities for Their Long-Term Storage and Sustainable Use. Sustainability, 2022, 14, 661.	1.6	9
67	Immobilized fungal biocatalysts for the production of cellulase complex hydrolyzing renewable plant feedstock. Catalysis in Industry, 2013, 5, 190-198.	0.3	8
68	Biocatalytic production of extracellular exopolysaccharide dextran synthesized by cells of Leuconostoc mesenteroides. Catalysis in Industry, 2017, 9, 339-343.	0.3	7
69	Suppression of Methane Generation during Methanogenesis by Chemically Modified Humic Compounds. Antioxidants, 2020, 9, 1140.	2.2	7
70	Driedâ€“Reswollen Immobilized Biocatalysts for Detoxification of Organophosphorous Compounds in the Flow Systems. Applied Biochemistry and Biotechnology, 2009, 159, 251-260.	1.4	6
71	Using Cholinesterases and Immobilized Luminescent Photobacteria for the Express-Analysis of Mycotoxins and Estimating the Efficiency of Their Enzymatic Hydrolysis. Toxins, 2021, 13, 34.	1.5	6
72	Postgenomic chemistry (IUPAC Technical Report). Pure and Applied Chemistry, 2005, 77, 1641-1654.	0.9	5

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73	Lactic acid production by immobilized cells of the fungus Rhizopus oryzae with simultaneous product extraction. Theoretical Foundations of Chemical Engineering, 2007, 41, 150-153.	0.2	5
74	Catalytic characteristics of enzyme-polyelectrolyte complexes based on hexahistidine-containing organophosphorus hydrolase. Moscow University Chemistry Bulletin, 2014, 69, 125-130.	0.2	5
75	Highly concentrated populations of Aureobasidium pullulans cells in biocatalytic pullulan production processes. Catalysis in Industry, 2017, 9, 344-348.	0.3	5
76	Humic substances and living systems: Impact on environmental and human health. Environmental Research, 2021, 194, 110726.	3.7	5
77	Cultivation conditions preferable for yeast cells to be immobilized into poly(vinyl alcohol) and used in bottled sparkling wine production. Chemical Industry and Chemical Engineering Quarterly, 2006, 12, 18-23.	0.4	5
78	ATP pool and bioluminescence in psychrophilic bacteria Photobacterium phosphoreum. Microbiology, 2014, 83, 315-321.	0.5	4
79	Antioxidants as stabilizers for His6-OPH: is this an unusual or regular role for them with enzymes?. Journal of Biochemistry, 2017, 162, 327-334.	0.9	4
80	The Influence of Enzymatic Removal of Chlorpyrifos from Feed Grain Mixes on Biochemical Parameters of Rat Blood. Biochemistry (Moscow) Supplement Series B: Biomedical Chemistry, 2018, 12, 181-185.	0.2	4
81	Simultaneous molecular docking of different ligands to His6-tagged organophosphorus hydrolase as an effective tool for assessing their effect on the enzyme. PeerJ, 2019, 7, e7684.	0.9	4
82	The factor stabilizing the bioluminescence of PVA-immobilized photobacteria. Microbiology, 2017, 86, 218-224.	0.5	3
83	Decarboxylases as hypothetical targets for actions of organophosphates: Molecular modeling for prediction of hidden and unexpected health threats. Food and Chemical Toxicology, 2022, 161, 112856.	1.8	3
84	Refolding of hexahistidine-tagged organophophorous hydrolase from inclusion bodies. Moscow University Chemistry Bulletin, 2007, 62, 320-324.	0.2	2
85	Hybrid solâ€“gel bio-films: influence of synthetic parameters on behaviour and performance of entrapped His6-tagged organophosphorus hydrolase. Journal of Sol-Gel Science and Technology, 2015, 74, 387-397.	1.1	2
86	Nanozyme technology at Moscow State University. Achievements and development perspectives. Moscow University Chemistry Bulletin, 2016, 71, 209-220.	0.2	2
87	Genetic Transformation of Immobilized Competent Cells. Applied Biochemistry and Biotechnology, 2000, 88, 107-118.	1.4	1
88	An optical biosensor based on His 6 -OPH for organophosphate detection. , 2011, , .		0
89	Enzymatic Biocatalysts Immobilized on/in the Cryogel-Type Carriers. , 2016, , 311-334.		0
90	Bioluminescent Nano- and Micro-biosensing Elements for Detection of Organophosphorus Compounds. , 2021, , 239-261.		0

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91	ÐœÐ¾Ð»ÐµÐºÑƒÐ»ÑÑ€Ð½Ð°Ñ•Ð¿Ñ€Ð¸Ñ€Ð¾Ð´Ð° Ð“ÐšÐ-ÑÐ¿ÐµÑ‚Ñ€Ð¾Ð² ÑÑƒÑÐ¿ÐµÐ½Ð·Ð¸Ð¹ E .coli Ð¡Ñ€Ð¸ Ð»Ð¸Ð½Ð°Ñ		
92	Enzymes for detoxification of organophosphorus compounds: diversity and functions. , 2020, , 233-252.		0
93	Immobilized enzymatic biocatalysts and their application for destruction of organophosphorus compounds in water, soil and air systems. , 2020, , 340-360.		0
94	Enzyme-based nanocomplexes and their construction for detoxification of organophosphorus compounds. , 2020, , 361-379.		0
95	Enzymatic detection of organophosphorus compounds. , 2020, , 183-204.		0
96	Self-defending (self-degasing) materials for protection against organophosphorus compounds. , 2020, , 321-339.		0
97	Microbial biocatalysts in the biocatalytic processes of the degradation of organophosphorus compounds. , 2020, , 288-318.		0
98	Enzymatic detection of organophosphorous compounds. , 2020, , 177-198.		0