Bernd H A Rehm

List of Publications by Year
in descending order

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181	12,819	31976 53	27406 106
papers	citations	h-index	g-index

195	195	195	10456
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Pseudomonas aeruginosa Lifestyle: A Paradigm for Adaptation, Survival, and Persistence. Frontiers in Cellular and Infection Microbiology, 2017, 7, 39.	3.9	950
2	Bacterial polymers: biosynthesis, modifications and applications. Nature Reviews Microbiology, 2010, 8, 578-592.	28.6	695
3	A sensitive, viable-colony staining method using Nile red for direct screening of bacteria that accumulate polyhydroxyalkanoic acids and other lipid storage compounds. Archives of Microbiology, 1999, 171, 73-80.	2.2	637
4	Polyester synthases: natural catalysts for plastics. Biochemical Journal, 2003, 376, 15-33.	3.7	623
5	Human Host Defense Peptide LL-37 Prevents Bacterial Biofilm Formation. Infection and Immunity, 2008, 76, 4176-4182.	2.2	551
6	Bacterial exopolysaccharides: biosynthesis pathways and engineering strategies. Frontiers in Microbiology, 2015, 6, 496.	3.5	409
7	Role of Exopolysaccharides in Pseudomonas aeruginosa Biofilm Formation and Architecture. Applied and Environmental Microbiology, 2011, 77, 5238-5246.	3.1	380
8	Biochemical and genetic analysis of PHA synthases and other proteins required for PHA synthesis. International Journal of Biological Macromolecules, 1999, 25, 3-19.	7.5	351
9	Pseudomonas aeruginosa Biofilms. International Journal of Molecular Sciences, 2020, 21, 8671.	4.1	322
10	Bacterial alginates: biosynthesis and applications. Applied Microbiology and Biotechnology, 1997, 48, 281-288.	3.6	297
11	Bacterial alginates: from biosynthesis to applications. Biotechnology Letters, 2006, 28, 1701-1712.	2.2	289
12	A New Metabolic Link between Fatty Acid de NovoSynthesis and Polyhydroxyalkanoic Acid Synthesis. Journal of Biological Chemistry, 1998, 273, 24044-24051.	3.4	259
13	Bacterial biopolymers: from pathogenesis to advanced materials. Nature Reviews Microbiology, 2020, 18, 195-210.	28.6	257
14	Microbial alginate production, modification and its applications. Microbial Biotechnology, 2013, 6, 637-650.	4.2	243
15	Bacterial Polyhydroxyalkanoate Granules: Biogenesis, Structure, and Potential Use as Nano-/Micro-Beads in Biotechnological and Biomedical Applications. Biomacromolecules, 2009, 10, 660-669.	5.4	223
16	Polymer production by two newly isolated extremely halophilic archaea: application of a novel corrosion-resistant bioreactor. Applied Microbiology and Biotechnology, 2000, 54, 319-325.	3.6	152
17	Role of Fatty Acid De Novo Biosynthesis in Polyhydroxyalkanoic Acid (PHA) and Rhamnolipid Synthesis by Pseudomonads: Establishment of the Transacylase (PhaG)-Mediated Pathway for PHA Biosynthesis in Escherichia coli. Applied and Environmental Microbiology, 2001, 67, 3102-3109.	3.1	143
18	Functional expression of the PHA synthase gene C1 from in results in poly(3-hydroxyalkanoate) synthesis. FEMS Microbiology Letters, 1997, 150, 303-309.	1.8	136

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19	The role of polyhydroxyalkanoate biosynthesis by Pseudomonas aeruginosa in rhamnolipid and alginate production as well as stress tolerance and biofilm formation. Microbiology (United) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf		
20	Bacterial biosynthesis of alginates. Journal of Chemical Technology and Biotechnology, 2010, 85, 752-759.	3.2	135
21	MucR, a Novel Membrane-Associated Regulator of Alginate Biosynthesis inPseudomonas aeruginosa. Applied and Environmental Microbiology, 2009, 75, 1110-1120.	3.1	129
22	Advanced liquid biopsy technologies for circulating biomarker detection. Journal of Materials Chemistry B, 2019, 7, 6670-6704.	5.8	118
23	Genetics and Biochemistry of Polyhydroxyalkanoate Granule Self-assembly: The Key Role of Polyester Synthases. Biotechnology Letters, 2006, 28, 207-213.	2.2	108
24	Biogenesis of microbial polyhydroxyalkanoate granules: a platform technology for the production of tailor-made bioparticles. Current Issues in Molecular Biology, 2007, 9, 41-62.	2.4	104
25	Replacement of the catalytic nucleophile cysteine-296 by serine in class II polyhydroxyalkanoate synthase from Pseudomonas aeruginosa-mediated synthesis of a new polyester: identification of catalytic residues. Biochemical Journal, 2003, 374, 413-421.	3.7	102
26	In vivo monitoring of PHA granule formation using GFP-labeled PHA synthases. FEMS Microbiology Letters, 2005, 248, 93-100.	1.8	102
27	Genetics and regulation of bacterial alginate production. Environmental Microbiology, 2014, 16, 2997-3011.	3.8	94
28	Polymeric nanoparticle vaccines to combat emerging and pandemic threats. Biomaterials, 2021, 268, 120597.	11.4	93
29	In vitro synthesis of poly(3-hydroxydecanoate): purification and enzymatic characterization of type II polyhydroxyalkanoate synthases PhaC1 and PhaC2 from Pseudomonas aeruginosa. Applied Microbiology and Biotechnology, 2000, 54, 37-43.	3.6	92
30	In Vitro Alginate Polymerization and the Functional Role of Alg8 in Alginate Production by Pseudomonas aeruginosa. Applied and Environmental Microbiology, 2006, 72, 298-305.	3.1	92
31	Polyhydroxybutyrate biosynthesis in Caulobacter crescentus: molecular characterization of the polyhydroxybutyrate synthase. Microbiology (United Kingdom), 2001, 147, 3353-3358.	1.8	89
32	The role of the fatty acid Î²-oxidation multienzyme complex from Pseudomonas oleovorans in polyhydroxyalkanoate biosynthesis: molecular characterization of the fadBA operon from P. oleovorans and of the enoyl-CoA hydratase genes phaJ from P. oleovorans and Pseudomonas putida. Archives of Microbiology, 2002, 178, 149-160.	2.2	88
33	Overexpression of algE in Escherichia coli: subcellular localization, purification, and ion channel properties. Journal of Bacteriology, 1994, 176, 5639-5647.	2.2	86
34	Alg44, a unique protein required for alginate biosynthesis inPseudomonas aeruginosa. FEBS Letters, 2006, 580, 3883-3888.	2.8	84
35	In Vivo Enzyme Immobilization by Use of Engineered Polyhydroxyalkanoate Synthase. Applied and Environmental Microbiology, 2006, 72, 1777-1783.	3.1	84
36	A new Azotobacter vinelandii mannuronan C-5-epimerase gene (algG) is part of an alg gene cluster physically organized in a manner similar to that in Pseudomonas aeruginosa. Journal of Bacteriology, 1996, 178, 5884-5889.	2.2	83

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37	Formation of Short Chain Length/Medium Chain Length Polyhydroxyalkanoate Copolymers by Fatty Acid Î²-Oxidation Inhibited Ralstonia eutropha. Biomacromolecules, 2002, 3, 208-213.	5.4	83
38	Enzyme Engineering for In Situ Immobilization. Molecules, 2016, 21, 1370.	3.8	83
39	PhaG-Mediated Synthesis of Poly(3-Hydroxyalkanoates) Consisting of Medium-Chain-Length Constituents from Nonrelated Carbon Sources in Recombinant Pseudomonas fragi. Applied and Environmental Microbiology, 2000, 66, 2117-2124.	3.1	82
40	Metabolic routing towards polyhydroxyalkanoic acid synthesis in recombinant Escherichia coli (fadR): inhibition of fatty acid ÁŽÂ²-oxidation by acrylic acid. FEMS Microbiology Letters, 1998, 167, 89-94.	1.8	81
41	Bioinformatic tools for DNA/protein sequence analysis, functional assignment of genes and protein classification. Applied Microbiology and Biotechnology, 2001, 57, 579-592.	3.6	81
42	Structural basis for alginate secretion across the bacterial outer membrane. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13083-13088.	7.1	81
43	Molecular characterization of the poly(3-hydroxybutyrate) (PHB) synthase from Ralstonia eutropha: in vitro evolution, site-specific mutagenesis and development of a PHB synthase protein model. BBA - Proteins and Proteomics, 2002, 1594, 178-190.	2.1	80
44	Expression of the psl Operon in Pseudomonas aeruginosa PAO1 Biofilms: PslA Performs an Essential Function in Biofilm Formation. Applied and Environmental Microbiology, 2005, 71, 4407-4413.	3.1	78
45	Escherichia coli NemA Is an Efficient Chromate Reductase That Can Be Biologically Immobilized to Provide a Cell Free System for Remediation of Hexavalent Chromium. PLoS ONE, 2013, 8, e59200.	2.5	78
46	In vivo evolution of the Aeromonas punctata polyhydroxyalkanoate (PHA) synthase: isolation and characterization of modified PHA synthases with enhanced activity. Applied Microbiology and Biotechnology, 2002, 59, 477-482.	3.6	75
47	Impact of Alginate Overproduction on Attachment and Biofilm Architecture of a Supermucoid Pseudomonas aeruginosa Strain. Applied and Environmental Microbiology, 2009, 75, 6022-6025.	3.1	64
48	Biochemical Characterization of the Pseudomonas putida 3-Hydroxyacyl ACP:CoA Transacylase, Which Diverts Intermediates of Fatty Acid de Novo Biosynthesis. Journal of Biological Chemistry, 2002, 277, 42926-42936.	3.4	62
49	Homologous functional expression of cryptic phaG from Pseudomonas oleovorans establishes the transacylase-mediated polyhydroxyalkanoate biosynthetic pathway. Applied Microbiology and Biotechnology, 2000, 54, 665-670.	3.6	61
50	Matrix-assisted in vitro refolding of Pseudomonas aeruginosa class II polyhydroxyalkanoate synthase from inclusion bodies produced in recombinant Escherichia coli. Biochemical Journal, 2001, 358, 263-268.	3.7	61
51	Vaccines Displaying Mycobacterial Proteins on Biopolyester Beads Stimulate Cellular Immunity and Induce Protection against Tuberculosis. Vaccine Journal, 2012, 19, 37-44.	3.1	61
52	Recombinant Escherichia coli Strain Produces a ZZ Domain Displaying Biopolyester Granules Suitable for Immunoglobulin G Purification. Applied and Environmental Microbiology, 2006, 72, 7394-7397.	3.1	60
53	Recombinant Escherichia coli produces tailor-made biopolyester granules for applications in fluorescence activated cell sorting: functional display of the mouse interleukin-2 and myelin oligodendrocyte glycoprotein. BMC Biotechnology, 2007, 7, 3.	3.3	60
54	Self-Assembled Protein-Coated Polyhydroxyalkanoate Beads: Properties and Biomedical Applications. ACS Biomaterials Science and Engineering, 2017, 3, 3043-3057.	5.2	55

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55	Bacterial Polyester Inclusions Engineered To Display Vaccine Candidate Antigens for Use as a Novel Class of Safe and Efficient Vaccine Delivery Agents. Applied and Environmental Microbiology, 2009, 75, 7739-7744.	3.1	53
56	Production of a Particulate Hepatitis C Vaccine Candidate by an Engineered Lactococcus lactis Strain. Applied and Environmental Microbiology, 2011, 77, 8516-8522.	3.1	53
57	Alginate Polymerization and Modification Are Linked in Pseudomonas aeruginosa. MBio, 2015, 6, e00453-15.	4.1	53
58	Multifunctional Inorganic-Binding Beads Self-Assembled Inside Engineered Bacteria. Bioconjugate Chemistry, 2008, 19, 2072-2080.	3.6	52
59	Novel Immunosuppressive Therapy by M2000 in Experimental Multiple Sclerosis. Immunopharmacology and Immunotoxicology, 2005, 27, 255-265.	2.4	51
60	Treatment of Experimental Arthritis with M2000, a Novel Designed Non-Steroidal Anti-Inflammatory Drug. Scandinavian Journal of Immunology, 2005, 61, 435-441.	2.7	49
61	In Vivo Production of scFv-Displaying Biopolymer Beads Using a Self-Assembly-Promoting Fusion Partner. Bioconjugate Chemistry, 2008, 19, 254-262.	3.6	46
62	Production of Functionalized Biopolyester Granules by Recombinant Lactococcus lactis. Applied and Environmental Microbiology, 2009, 75, 4668-4675.	3.1	46
63	One-Step Production of Immobilized Î±-Amylase in Recombinant Escherichia coli. Applied and Environmental Microbiology, 2009, 75, 2012-2016.	3.1	45
64	Insights into the Assembly of the Alginate Biosynthesis Machinery in Pseudomonas aeruginosa. Applied and Environmental Microbiology, 2013, 79, 3264-3272.	3.1	45
65	Biochemical and enzymological properties of the polyhydroxybutyrate synthase from the extremely halophilic archaeon strain 56. Archives of Biochemistry and Biophysics, 2002, 403, 284-291.	3.0	44
66	PslD Is a Secreted Protein Required for Biofilm Formation by Pseudomonas aeruginosa. Applied and Environmental Microbiology, 2006, 72, 3066-3068.	3.1	44
67	Protein engineering of streptavidin for in vivo assembly of streptavidin beads. Journal of Biotechnology, 2008, 134, 266-274.	3.8	41
68	Revaccination of Cattle with Bacille Calmette-GuÃ©rin Two Years after First Vaccination when Immunity Has Waned, Boosted Protection against Challenge with Mycobacterium bovis. PLoS ONE, 2014, 9, e106519.	2.5	41
69	Tolerance of the Ralstonia eutropha Class I Polyhydroxyalkanoate Synthase for Translational Fusions to Its C Terminus Reveals a New Mode of Functional Display. Applied and Environmental Microbiology, 2009, 75, 5461-5466.	3.1	40
70	Bactericidal Compounds Controlling Growth of the Plant Pathogen Pseudomonas syringae pv. actinidiae, Which Forms Biofilms Composed of a Novel Exopolysaccharide. Applied and Environmental Microbiology, 2015, 81, 4026-4036.	3.1	40
71	Gut-Associated Denitrification and In Vivo Emission of Nitrous Oxide by the Earthworm Families Megascolecidae and Lumbricidae in New Zealand. Applied and Environmental Microbiology, 2009, 75, 3430-3436.	3.1	38
72	Nitrogen-dependent regulation of medium-chain length polyhydroxyalkanoate biosynthesis genes in pseudomonads. Biotechnology Letters, 2005, 27, 279-282.	2.2	37

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73	Engineering bacteria to manufacture functionalized polyester beads. Bioengineered, 2012, 3, 203-208.	3.2	37
74	Immobilization of organophosphohydrolase OpdA from Agrobacterium radiobacter by overproduction at the surface of polyester inclusions inside engineered Escherichia coli. Biotechnology and Bioengineering, 2012, 109, 1101-1108.	3.3	37
75	Regulation of polyhydroxyalkanoate biosynthesis in Pseudomonas putida and Pseudomonas aeruginosa. FEMS Microbiology Letters, 2004, 237, 1-7.	1.8	37
76	Production of M2000 (Î²-d-mannuronic acid) and its therapeutic effect on experimental nephritis. Environmental Toxicology and Pharmacology, 2007, 24, 60-66.	4.0	36
77	New Skin Test for Detection of Bovine Tuberculosis on the Basis of Antigen-Displaying Polyester Inclusions Produced by Recombinant Escherichia coli. Applied and Environmental Microbiology, 2014, 80, 2526-2535.	3.1	36
78	Bioengineered polyester beads co-displaying protein and carbohydrate-based antigens induce protective immunity against bacterial infection. Scientific Reports, 2018, 8, 1888.	3.3	35
79	Analysis of 4-Phosphopantetheinylation of Polyhydroxybutyrate Synthase from Ralstonia eutropha : Generation of Î²-Alanine Auxotrophic Tn 5 Mutants and Cloning of the panD Gene Region. Journal of Bacteriology, 1999, 181, 1429-1435.	2.2	35
80	Bioengineering of Bacterial Polymer Inclusions Catalyzing the Synthesis of N -Acetylneuraminic Acid. Applied and Environmental Microbiology, 2013, 79, 3116-3121.	3.1	34
81	Bioengineering toward direct production of immobilized enzymes: A paradigm shift in biocatalyst design. Bioengineered, 2018, 9, 6-11.	3.2	34
82	The inherent property of polyhydroxyalkanoate synthase to form spherical PHA granules at the cell poles: The core region is required for polar localization. Journal of Biotechnology, 2007, 132, 238-245.	3.8	33
83	Identification of a periplasmic AlgKâ€“AlgXâ€“MucD multiprotein complex in Pseudomonas aeruginosa involved in biosynthesis and regulation of alginate. Applied Microbiology and Biotechnology, 2012, 93, 215-227.	3.6	33
84	Protective T Cell and Antibody Immune Responses against Hepatitis C Virus Achieved Using a Biopolyester-Bead-Based Vaccine Delivery System. Vaccine Journal, 2016, 23, 370-378.	3.1	33
85	Immunogencity of antigens from Mycobacterium tuberculosis self-assembled as particulate vaccines. International Journal of Medical Microbiology, 2016, 306, 624-632.	3.6	33
86	Polyester as Antigen Carrier toward Particulate Vaccines. Biomacromolecules, 2019, 20, 3213-3232.	5.4	33
87	Sodium Alginate as a Novel Therapeutic Option in Experimental Colitis. Scandinavian Journal of Immunology, 2005, 61, 316-321.	2.7	31
88	Membrane Topology of Outer Membrane Protein AlgE, Which Is Required for Alginate Production in Pseudomonas aeruginosa. Applied and Environmental Microbiology, 2010, 76, 1806-1812.	3.1	31
89	Heterologous expression of the acyl-acyl carrier protein thioesterase gene from the plant Umbellularia californica mediates polyhydroxyalkanoate biosynthesis in recombinant Escherichia coli. Applied Microbiology and Biotechnology, 2001, 55, 205-209.	3.6	30
90	Bioengineering towards self-assembly of particulate vaccines. Current Opinion in Biotechnology, 2017, 48, 42-53.	6.6	30

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91	Bioengineered Polyhydroxyalkanoates as Immobilized Enzyme Scaffolds for Industrial Applications. Frontiers in Bioengineering and Biotechnology, 2020, 8, 156.	4.1	30
92	Molecular characterization of Alg8, a putative glycosyltransferase, involved in alginate polymerisation. Journal of Biotechnology, 2009, 140, 176-183.	3.8	29
93	Self-assembled particulate PsaA as vaccine against Streptococcus pneumoniae infection. Heliyon, 2017, 3, e00291.	3.2	29
94	Antibody response of rabbits and cystic fibrosis patients to an alginate-specific outer membrane protein of a mucoid strain of Pseudomonas aeruginosa. Microbial Pathogenesis, 1994, 16, 43-51.	2.9	28
95	The Azotobacter vinelandii gene algJ encodes an outer-membrane protein presumably involved in export of alginate. Microbiology (United Kingdom), 1996, 142, 873-880.	1.8	28
96	Biochemical analysis ofÂalginate biosynthesis protein AlgX from PseudomonasÂaeruginosa: purification ofÂanÂAlgX-MucD (AlgY) protein complex. Biochimie, 2006, 88, 245-251.	2.6	28
97	Polyhydroyxalkanoate Synthase Fusions as a Strategy for Oriented Enzyme Immobilisation. Molecules, 2014, 19, 8629-8643.	3.8	28
98	Engineering Bacillus megaterium for production of functional intracellular materials. Microbial Cell Factories, 2017, 16, 211.	4.0	28
99	Protein engineering towards biotechnological production of bifunctional polyester beads. Biotechnology Letters, 2009, 31, 131-137.	2.2	26
100	Relevant uses of surface proteins â€“ display on selfâ€organized biological structures. Microbial Biotechnology, 2012, 5, 188-202.	4.2	26
101	Role of PelF in Pel Polysaccharide Biosynthesis in Pseudomonas aeruginosa. Applied and Environmental Microbiology, 2013, 79, 2968-2978.	3.1	26
102	Novel particulate vaccines utilizing polyester nanoparticles (bio-beads) for protection against Mycobacterium bovis infectionâ€”A review. Veterinary Immunology and Immunopathology, 2014, 158, 8-13.	1.2	26
103	Membrane-anchored MucR mediates nitrate-dependent regulation of alginate production in Pseudomonas aeruginosa. Applied Microbiology and Biotechnology, 2015, 99, 7253-7265.	3.6	26
104	Evaluation of the efficacy and safety of Î²-d-mannuronic acid in patients with ankylosing spondylitis: A 12-week randomized, placebo-controlled, phase I/II clinical trial. International Immunopharmacology, 2018, 54, 112-117.	3.8	26
105	Membrane topology of the outer membrane protein OprH from Pseudomonas aeruginosa: PCR-mediated site-directed insertion and deletion mutagenesis. Journal of Bacteriology, 1996, 178, 3346-3349.	2.2	24
106	ZZ polyester beads: An efficient and simple method for purifying IgG from mouse hybridoma supernatants. Journal of Immunological Methods, 2009, 346, 71-74.	1.4	24
107	In vivo polyester immobilized sortase for tagless protein purification. Microbial Cell Factories, 2015, 14, 190.	4.0	24
108	Activation Mechanism and Cellular Localization of Membrane-Anchored Alginate Polymerase in Pseudomonas aeruginosa. Applied and Environmental Microbiology, 2017, 83, .	3.1	24

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109	Alginate Biosynthesis and Biotechnological Production. Springer Series in Biomaterials Science and Engineering, 2018, , 1-25.	1.0	24
110	Dual Roles of Pseudomonas aeruginosa AlgE in Secretion of the Virulence Factor Alginate and Formation of the Secretion Complex. Applied and Environmental Microbiology, 2013, 79, 2002-2011.	3.1	23
111	Bioengineering a bacterial pathogen to assemble its own particulate vaccine capable of inducing cellular immunity. Scientific Reports, 2017, 7, 41607.	3.3	23
112	Bioengineered Polymer Nanobeads for Isolation and Electrochemical Detection of Cancer Biomarkers. ACS Applied Materials & Interfaces, 2021, 13, 31418-31430.	8.0	23
113	Synthetic biology towards the synthesis of customâ€made polysaccharides. Microbial Biotechnology, 2015, 8, 19-20.	4.2	22
114	Display of Antigens on Polyester Inclusions Lowers the Antigen Concentration Required for a Bovine Tuberculosis Skin Test. Vaccine Journal, 2016, 23, 19-26.	3.1	22
115	Recombinant Protein Production by In Vivo Polymer Inclusion Display. Applied and Environmental Microbiology, 2011, 77, 6706-6709.	3.1	21
116	Design of Modular Polyhydroxyalkanoate Scaffolds for Protein Immobilization by Directed Ligation. Biomacromolecules, 2018, 19, 4098-4112.	5.4	21
117	Chemopreventive effect of M2000, a new anti-inflammatory agent. Medical Science Monitor, 2004, 10, PI105-9.	1.1	21
118	Bioinformatic prospecting and phylogenetic analysis reveals 94 undescribed circular bacteriocins and key motifs. BMC Microbiology, 2020, 20, 77.	3.3	20
119	M2000: a revolution in pharmacology. Medical Science Monitor, 2005, 11, PI53-63.	1.1	20
120	Mâ€2000, as a New Antiâ€inflammatory Molecule in Treatment of Experimental Nephrosis. Immunopharmacology and Immunotoxicology, 2004, 26, 611-619.	2.4	19
121	Introduction of Î²- d -mannuronic acid (M2000) as a novel NSAID with immunosuppressive property based on COX-1/COX-2 activity and gene expression. Pharmacological Reports, 2017, 69, 1067-1072.	3.3	19
122	Oral administration effects of Î²-d-mannuronic acid (M2000) on Th17 and regulatory T cells in patients with ankylosing spondylitis. Biomedicine and Pharmacotherapy, 2018, 100, 495-500.	5.6	19
123	Innovative antigen carrier system for the development of tuberculosis vaccines. FASEB Journal, 2019, 33, 7505-7518.	0.5	19
124	The polyhydroxyalkanoate biosynthesis genes are differentially regulated in planktonic- and biofilm-grown Pseudomonas aeruginosa. Journal of Biotechnology, 2008, 133, 442-452.	3.8	18
125	Bioengineering of Bacteria To Assemble Custom-Made Polyester Affinity Resins. Applied and Environmental Microbiology, 2015, 81, 282-291.	3.1	18
126	Covalent Functionalization of Bioengineered Polyhydroxyalkanoate Spheres Directed by Specific Protein-Protein Interactions. Frontiers in Bioengineering and Biotechnology, 2020, 8, 44.	4.1	18

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127	A phase I/II randomized, controlled, clinical trial for assessment of the efficacy and safety of Î²-d-mannuronic acid in rheumatoid arthritis patients. Inflammopharmacology, 2018, 26, 737-745.	3.9	17
128	An alginate-like exopolysaccharide biosynthesis gene cluster involved in biofilm aerial structure formation by Pseudomonas alkylphenolia. Applied Microbiology and Biotechnology, 2014, 98, 4137-4148.	3.6	16
129	In Vivo Self-Assembly of Stable Green Fluorescent Protein Fusion Particles and Their Uses in Enzyme Immobilization. Applied and Environmental Microbiology, 2014, 80, 3062-3071.	3.1	16
130	Biological function of a polysaccharide degrading enzyme in the periplasm. Scientific Reports, 2016, 6, 31249.	3.3	16
131	Design and Biological Assembly of Polyester Beads Displaying Pneumococcal Antigens as Particulate Vaccine. ACS Biomaterials Science and Engineering, 2018, 4, 3413-3424.	5.2	16
132	Editorial: Microbial Exopolysaccharides: From Genes to Applications. Frontiers in Microbiology, 2016, 7, 308.	3.5	15
133	Purification of target proteins from intracellular inclusions mediated by intein cleavable polyhydroxyalkanoate synthase fusions. Microbial Cell Factories, 2017, 16, 184.	4.0	15
134	Design of a single-chain multi-enzyme fusion protein establishing the polyhydroxybutyrate biosynthesis pathway. Journal of Biotechnology, 2010, 147, 31-36.	3.8	14
135	In Vivo Self-Assembly of Fluorescent Protein Microparticles Displaying Specific Binding Domains. Bioconjugate Chemistry, 2013, 24, 1314-1323.	3.6	14
136	Immobilization of active lipase B from Candida antarctica on the surface of polyhydroxyalkanoate inclusions. Biotechnology Letters, 2015, 37, 831-835.	2.2	14
137	Does acidification of a soil biofilter compromise its methane-oxidising capacity?. Biology and Fertility of Soils, 2016, 52, 573-583.	4.3	14
138	Analysis of the alginate O-acetylation machinery in Pseudomonas aeruginosa. Applied Microbiology and Biotechnology, 2020, 104, 2179-2191.	3.6	14
139	Bacterially assembled biopolyester nanobeads for removing cadmium from water. Water Research, 2020, 186, 116357.	11.3	14
140	Ambient Temperature Stable, Scalable COVIDâ€19 Polymer Particle Vaccines Induce Protective Immunity. Advanced Healthcare Materials, 2022, 11, e2102089.	7.6	14
141	Use of Bacterial Polyhydroxyalkanoates in Protein Display Technologies. Springer Protocols, 2014, , 71-86.	0.3	13
142	Surface display of highly-stable Desulfovibrio vulgaris carbonic anhydrase on polyester beads for CO2 capture. Biotechnology Letters, 2015, 37, 1415-1420.	2.2	13
143	Assessment of farm soil, biochar, compost and weathered pine mulch to mitigate methane emissions. Applied Microbiology and Biotechnology, 2016, 100, 9365-9379.	3.6	13
144	International multicenter randomized, placebo-controlled phase III clinical trial of Î²-d-mannuronic acid in rheumatoid arthritis patients. Inflammopharmacology, 2019, 27, 911-921.	3.9	13

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145	Engineering Mycobacteria for the Production of Self-Assembling Biopolyesters Displaying Mycobacterial Antigens for Use as a Tuberculosis Vaccine. Applied and Environmental Microbiology, 2017, 83, .	3.1	12
146	A Pseudomonas aeruginosa-Derived Particulate Vaccine Protects against P. aeruginosa Infection. Vaccines, 2021, 9, 803.	4.4	12
147	Catalytically Active Bioseparation Resin Utilizing a Covalent Intermediate for Tagless Protein Purification. ACS Applied Bio Materials, 2020, 3, 8911-8922.	4.6	12
148	In-air particle generation by on-chip electrohydrodynamics. Lab on A Chip, 2021, 21, 1779-1787.	6.0	11
149	The Potent Inhibitory Effect of Î²-D-Mannuronic Acid (M2000) as a Novel NSAID with Immunosuppressive Property on Anti-Cyclic Citrullinated Peptide Antibodies, Rheumatoid Factor and Anti-dsDNA Antibodies in Patients with Rheumatoid Arthritis. Current Drug Discovery Technologies, 2017, 14, 206-214.	1.2	11
150	Treatment of experimental immune complex glomerulonephritis by sodium alginate. Vascular Pharmacology, 2005, 43, 30-35.	2.1	10
151	Insights into the surface topology of polyhydroxyalkanoate synthase: self-assembly of functionalized inclusions. Applied Microbiology and Biotechnology, 2015, 99, 8045-8053.	3.6	10
152	Immunological properties and protective efficacy of a single mycobacterial antigen displayed on polyhydroxybutyrate beads. Microbial Biotechnology, 2017, 10, 1434-1440.	4.2	10
153	The effects of Î²-d-mannuronic acid (M2000), as a novel NSAID, on COX1 and COX2 activities and gene expression in ankylosing spondylitis patients and the murine monocyte/macrophage, J774 cell line. Inflammopharmacology, 2018, 26, 375-384.	3.9	10
154	An amplification-free method for the detection of HOTAIR long non-coding RNA. Analytica Chimica Acta, 2020, 1132, 66-73.	5.4	10
155	Alginate Encapsulation of Bioengineered Proteinâ€Coated Polyhydroxybutyrate Particles: A New Platform for Multifunctional Composite Materials. Advanced Functional Materials, 2019, 29, 1901893.	14.9	9
156	Assessing the Performance of Floating Biofilters for Oxidation of Methane from Dairy Effluent Ponds. Journal of Environmental Quality, 2017, 46, 272-280.	2.0	8
157	Purification of therapeutic proteins mediated by in vivo polyester immobilized sortase. Biotechnology Letters, 2018, 40, 369-373.	2.2	8
158	Design of Bacterial Inclusion Bodies as Antigen Carrier Systems. Advanced Biology, 2018, 2, 1800118.	3.0	8
159	The Role of Alginate in Bacterial Biofilm Formation. Biologically-inspired Systems, 2019, , 517-537.	0.2	8
160	Cold atmospheric plasma for preventing infection of viruses that use ACE2 for entry. Theranostics, 2022, 12, 2811-2832.	10.0	8
161	Particulate Mycobacterial Vaccines Induce Protective Immunity against Tuberculosis in Mice. Nanomaterials, 2021, 11, 2060.	4.1	7
162	Engineered Mycobacterium tuberculosis antigen assembly into core-shell nanobeads for diagnosis of tuberculosis. Nanomedicine: Nanotechnology, Biology, and Medicine, 2021, 34, 102374.	3.3	6

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163	Self-assembled particulate vaccine elicits strong immune responses and reduces Mycobacterium avium subsp. paratuberculosis infection in mice. Scientific Reports, 2020, 10, 22289.	3.3	6
164	Epitope-coated polymer particles elicit neutralising antibodies against Plasmodium falciparum sporozoites. Npj Vaccines, 2021, 6, 141.	6.0	6
165	Intranasal Delivery of Antigen-Coated Polymer Particles Protects against Pseudomonas aeruginosa Infection. ACS Infectious Diseases, 2022, 8, 744-756.	3.8	6
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