Guo-Qiang Chen

List of Publications by Year
in descending order

353 papers	24,100 citations	5268 83 h-index	12597 132 g-index
372 all docs	372 docs citations	372 times ranked	14278 citing authors

#	Article	IF	Citations
1	The application of polyhydroxyalkanoates as tissue engineering materials. Biomaterials, 2005, 26, 6565-6578.	11.4	1,276
2	A microbial polyhydroxyalkanoates (PHA) based bio- and materials industry. Chemical Society Reviews, 2009, 38, 2434.	38.1	1,067
3	Plastics Derived from Biological Sources: Present and Future: A Technical and Environmental Review. Chemical Reviews, 2012, 112, 2082-2099.	47.7	792
4	A review on special wettability textiles: theoretical models, fabrication technologies and multifunctional applications. Journal of Materials Chemistry A, 2017, 5, 31-55.	10.3	515
5	Polyhydroxyalkanoate (PHA) scaffolds with good mechanical properties and biocompatibility. Biomaterials, 2003, 24, 1041-1045.	11.4	287
6	Next generation industrial biotechnology based on extremophilic bacteria. Current Opinion in Biotechnology, 2018, 50, 94-100.	6.6	265
7	Unsterile and continuous production of polyhydroxybutyrate by Halomonas TD01. Bioresource Technology, 2011, 102, 8130-8136.	9.6	257
8	Polyhydroxyalkanoates, challenges and opportunities. Current Opinion in Biotechnology, 2014, 30, 59-65.	6.6	257
9	Halophiles, coming stars for industrial biotechnology. Biotechnology Advances, 2015, 33, 1433-1442.	11.7	234
10	Polyhydroxyalkanoates as a source of chemicals, polymers, and biofuels. Current Opinion in Biotechnology, 2011, 22, 768-774.	6.6	228
11	Effect of surface treatment on the biocompatibility of microbial polyhydroxyalkanoates. Biomaterials, 2002, 23, 1391-1397.	11.4	225
12	Attachment, proliferation and differentiation of osteoblasts on random biopolyester poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) scaffolds. Biomaterials, 2004, 25, 669-675.	11.4	224
13	Application of CRISPRi for prokaryotic metabolic engineering involving multiple genes, a case study: Controllable P(3HB-co-4HB) biosynthesis. Metabolic Engineering, 2015, 29, 160-168.	7.0	222
14	Study on the three-dimensional proliferation of rabbit articular cartilage-derived chondrocytes on polyhydroxyalkanoate scaffolds. Biomaterials, 2002, 23, 4049-4056.	11.4	214
15	Medical Application of Microbial Biopolyesters Polyhydroxyalkanoates. Artificial Cells, Blood Substitutes, and Biotechnology, 2009, 37, 1-12.	0.9	198
16	Identification of a cellularly active SIRT6 allosteric activator. Nature Chemical Biology, 2018, 14, 1118-1126.	8.0	193
17	Biosynthesis of poly(3-hydroxydecanoate) and 3-hydroxydodecanoate dominating polyhydroxyalkanoates by Î²-oxidation pathway inhibited Pseudomonas putida. Metabolic Engineering, 2011, 13, 11-17.	7.0	188
18	In situ FTIR study on melting and crystallization of polyhydroxyalkanoates. Polymer, 2002, 43, 6893-6899.	3.8	185

#	Article	IF	Citations
19	Polyhydroxyalkanoates (PHA) for therapeutic applications. Materials Science and Engineering C, 2018, 86, 144-150.	7.3	182
20	Engineering the ribosomal DNA in a megabase synthetic chromosome. Science, 2017, 355, .	12.6	169
21	Engineering Halomonas TD01 for the low-cost production of polyhydroxyalkanoates. Metabolic Engineering, 2014, 26, 34-47.	7.0	166
22	Evaluation of three-dimensional scaffolds made of blends of hydroxyapatite and poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) for bone reconstruction. Biomaterials, 2005, 26, 899-904.	11.4	165
23	A Microâ€Ark for Cells: Highly Open Porous Polyhydroxyalkanoate Microspheres as Injectable Scaffolds for Tissue Regeneration. Advanced Materials, 2018, 30, e1802273.	21.0	165
24	Evaluation of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) conduits for peripheral nerve regeneration. Biomaterials, 2009, 30, 217-225.	11.4	155
25	Production of poly(3-hydroxybutyrate-co-4-hydroxybutyrate) from unrelated carbon sources by metabolically engineered Escherichia coli. Metabolic Engineering, 2010, 12, 352-359.	7.0	155
26	Reduced mouse fibroblast cell growth by increased hydrophilicity of microbial polyhydroxyalkanoates via hyaluronan coating. Biomaterials, 2003, 24, 4621-4629.	11.4	153
27	The behaviour of neural stem cells on polyhydroxyalkanoate nanofiber scaffolds. Biomaterials, 2010, 31, 3967-3975.	11.4	148
28	Production of Polyhydroxyalkanoates with High 3-Hydroxydodecanoate Monomer Content by <i>fadB</i> and <i>fadA</i> Knockout Mutant of <i>Pseudomonas putida</i> KT2442. Biomacromolecules, 2007, 8, 2504-2511.	5.4	146
29	Grand Challenges for Industrializing Polyhydroxyalkanoates (PHAs). Trends in Biotechnology, 2021, 39, 953-963.	9.3	145
30	A specific drug targeting system based on polyhydroxyalkanoate granule binding protein PhaP fused with targeted cell ligands. Biomaterials, 2008, 29, 4823-4830.	11.4	142
31	A seawater-based open and continuous process for polyhydroxyalkanoates production by recombinant Halomonas campaniensis LS21 grown in mixed substrates. Biotechnology for Biofuels, 2014, 7, .	6.2	142
32	Development of Halomonas TD01 as a host for open production of chemicals. Metabolic Engineering, 2014, 23, 78-91.	7.0	141
33	Engineering biosynthesis of polyhydroxyalkanoates (PHA) for diversity and cost reduction. Metabolic Engineering, 2020, 58, 82-93.	7.0	136
34	Evaluation of three-dimensional scaffolds prepared from poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) for growth of allogeneic chondrocytes for cartilage repair in rabbits. Biomaterials, 2008, 29, 2858-2868.	11.4	135
35	Polymer Nanoparticles. Progress in Molecular Biology and Translational Science, 2011, 104, 299-323.	1.7	135
36	Nanofibrous polyhydroxyalkanoate matrices as cell growth supporting materials. Biomaterials, 2008, 29, 3720-3728.	11.4	133

#	Article	IF	Citations
37	Biosynthesis of polyhydroxyalkanoate homopolymers by Pseudomonas putida. Applied Microbiology and Biotechnology, 2011, 89, 1497-1507.	3.6	131
38	Effects of crystallization of polyhydroxyalkanoate blend on surface physicochemical properties and interactions with rabbit articular cartilage chondrocytes. Biomaterials, 2005, 26, 3537-3548.	11.4	130
39	A rapid-acting, long-acting insulin formulation based on a phospholipid complex loaded PHBHHx nanoparticles. Biomaterials, 2012, 33, 1583-1588.	11.4	129
40	Enhanced vascular-related cellular affinity on surface modified copolyesters of 3-hydroxybutyrate and 3-hydroxyhexanoate (PHBHHx). Biomaterials, 2005, 26, 6991-7001.	11.4	127
41	Plastics Completely Synthesized by Bacteria: Polyhydroxyalkanoates. Microbiology Monographs, 2010, , 17-37.	0.6	126
42	Microbial production and applications of chiral hydroxyalkanoates. Applied Microbiology and Biotechnology, 2005, 67, 592-599.	3.6	123
43	Engineering Escherichia coli for enhanced production of poly(3-hydroxybutyrate-co-4-hydroxybutyrate) in larger cellular space. Metabolic Engineering, 2014, 25, 183-193.	7.0	123
44	Engineering the diversity of polyesters. Current Opinion in Biotechnology, 2014, 29, 24-33.	6.6	122
45	Poly(hydroxybutyrate-co-hydroxyhexanoate) promoted production of extracellular matrix of articular cartilage chondrocytes in vitro. Biomaterials, 2003, 24, 4273-4281.	11.4	120
46	Effect of composition of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) on growth of fibroblast and osteoblast. Biomaterials, 2005, 26, 755-761.	11.4	119
47	Biodegradation studies of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate). Polymer Degradation and Stability, 2004, 85, 815-821.	5.8	118
48	Production and characterization of poly(3-hydroxypropionate-co-4-hydroxybutyrate) with fully controllable structures by recombinant Escherichia coli containing an engineered pathway. Metabolic Engineering, 2012, 14, 317-324.	7.0	116
49	Engineering Biosynthesis Mechanisms for Diversifying Polyhydroxyalkanoates. Trends in Biotechnology, 2015, 33, 565-574.	9.3	115
50	Engineering Halomonas bluephagenesis TD01 for non-sterile production of poly(3-hydroxybutyrate-co-4-hydroxybutyrate). Bioresource Technology, 2017, 244, 534-541.	9.6	114
51	3-Hydroxybutyrate methyl ester as a potential drug against Alzheimer's disease via mitochondria protection mechanism. Biomaterials, 2013, 34, 7552-7562.	11.4	113
52	Engineering the bacterial shapes for enhanced inclusion bodies accumulation. Metabolic Engineering, 2015, 29, 227-237.	7.0	113
53	Chondrogenic differentiation of human bone marrow mesenchymal stem cells on polyhydroxyalkanoate (PHA) scaffolds coated with PHA granule binding protein PhaP fused with RGD peptide. Biomaterials, 2011, 32, 2305-2313.	11.4	112
54	Application of (<i>R</i>)-3-Hydroxyalkanoate Methyl Esters Derived from Microbial Polyhydroxyalkanoates as Novel Biofuels. Biomacromolecules, 2009, 10, 707-711.	5.4	111

#	Article	IF	Citations
55	Engineering bacteria for enhanced polyhydroxyalkanoates (PHA) biosynthesis. Synthetic and Systems Biotechnology, 2017, 2, 192-197.	3.7	111
56	Studies on bone marrow stromal cells affinity of poly (3-hydroxybutyrate-co-3-hydroxyhexanoate). Biomaterials, 2004, 25, 1365-1373.	11.4	110
57	Application of Polyhydroxyalkanoates Nanoparticles as Intracellular Sustained Drug-Release Vectors. Journal of Biomaterials Science, Polymer Edition, 2010, 21, 127-140.	3.5	107
58	Differentiation of human bone marrow mesenchymal stem cells grown in terpolyesters of 3-hydroxyalkanoates scaffolds into nerve cells. Biomaterials, 2010, 31, 1691-1698.	11.4	106
59	The effect of d,l-Î²-hydroxybutyric acid on cell death and proliferation in L929 cells. Biomaterials, 2006, 27, 3758-3765.	11.4	105
60	Enhanced production of medium-chain-length polyhydroxyalkanoates (PHA) by PHA depolymerase knockout mutant of Pseudomonas putida KT2442. Bioresource Technology, 2009, 100, 2265-2270.	9.6	105
61	Synthesis of Diblock copolymer poly-3-hydroxybutyrate -block-poly-3-hydroxyhexanoate [PHB-b-PHHx] by a Î²-oxidation weakened Pseudomonas putida KT2442. Microbial Cell Factories, 2012, 11, 44.	4.0	105
62	CRISPR/Cas9 editing genome of extremophile Halomonas spp.. Metabolic Engineering, 2018, 47, 219-229.	7.0	105
63	In vitro effect of oligo-hydroxyalkanoates on the growth of mouse fibroblast cell line L929. Biomaterials, 2007, 28, 3896-3903.	11.4	104
64	CRISPRi engineering E. coli for morphology diversification. Metabolic Engineering, 2016, 38, 358-369.	7.0	104
65	Microbial production of polyhydroxyalkanoate block copolymer by recombinant Pseudomonas putida. Applied Microbiology and Biotechnology, 2011, 90, 659-669.	3.6	102
66	Effect of 3-hydroxyhexanoate content in poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) on in vitro growth and differentiation of smooth muscle cells. Biomaterials, 2006, 27, 2944-2950.	11.4	101
67	Processability modifications of poly(3â€hydroxybutyrate) by plasticizing, blending, and stabilizing. Journal of Applied Polymer Science, 2008, 107, 166-173.	2.6	100
68	Production of poly-3-hydroxybutyrate by Bacillus sp. JMa5 cultivated in molasses media. Antonie Van Leeuwenhoek, 2001, 80, 111-118.	1.7	98
69	Open and continuous fermentation: Products, conditions and bioprocess economy. Biotechnology Journal, 2014, 9, 1503-1511.	3.5	98
70	Morphology engineering of bacteria for bio-production. Biotechnology Advances, 2016, 34, 435-440.	11.7	98
71	The effect of 3-hydroxybutyrate on the in vitro differentiation of murine osteoblast MC3T3-E1 and in vivo bone formation in ovariectomized rats. Biomaterials, 2007, 28, 3063-3073.	11.4	97
72	Biosynthesis and Characterization of Polyhydroxyalkanoate Block Copolymer P3HB-<i>b</i>-P4HB. Biomacromolecules, 2011, 12, 3166-3173.	5.4	97

#	Article	IF	Citations
73	Engineering Halomonas species TD01 for enhanced polyhydroxyalkanoates synthesis via CRISPRi. Microbial Cell Factories, 2017, 16, 48.	4.0	96
74	Promoter Engineering for Enhanced P(3HB-<i>co</i>-4HB) Production by <i>Halomonas bluephagenesis</i>. ACS Synthetic Biology, 2018, 7, 1897-1906.	3.8	95
75	Surface Stress Effects on the Bending Direction and Twisting Chirality of Lamellar Crystals of Chiral Polymer. Macromolecules, 2010, 43, 5762-5770.	4.8	94
76	YeastFab: the design and construction of standard biological parts for metabolic engineering in<i>Saccharomyces cerevisiae</i>. Nucleic Acids Research, 2015, 43, e88-e88.	14.5	93
77	Novel T7-like expression systems used for Halomonas. Metabolic Engineering, 2017, 39, 128-140.	7.0	93
78	Biosynthesis and Characterization of Poly(3-hydroxydodecanoate) by Î²-Oxidation Inhibited Mutant of <i>Pseudomonas entomophila</i> L48. Biomacromolecules, 2011, 12, 3559-3566.	5.4	90
79	The differential effects of aligned electrospun PHBHHx fibers on adipogenic and osteogenic potential of MSCs through the regulation of PPARÎ³ signaling. Biomaterials, 2012, 33, 485-493.	11.4	90
80	New challenges and opportunities for industrial biotechnology. Microbial Cell Factories, 2012, 11, 111.	4.0	89
81	Engineering of Halomonas bluephagenesis for low cost production of poly(3-hydroxybutyrate-co-4-hydroxybutyrate) from glucose. Metabolic Engineering, 2018, 47, 143-152.	7.0	89
82	Improvement of mechanical properties of poly(dl-lactide) films by blending of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate). European Polymer Journal, 2006, 42, 764-775.	5.4	88
83	The improvement of fibroblast growth on hydrophobic biopolyesters by coating with polyhydroxyalkanoate granule binding protein PhaP fused with cell adhesion motif RGD. Biomaterials, 2010, 31, 8921-8930.	11.4	88
84	Production of novel polyhydroxyalkanoates byPseudomonas stutzeri1317 from glucose and soybean oil. FEMS Microbiology Letters, 1998, 169, 45-49.	1.8	86
85	Production and characterization of homopolymer polyhydroxyheptanoate (P3HHp) by a fadBA knockout mutant Pseudomonas putida KTOY06 derived from P. putida KT2442. Process Biochemistry, 2009, 44, 106-111.	3.7	86
86	Engineering NADH/NAD+ ratio in Halomonas bluephagenesis for enhanced production of polyhydroxyalkanoates (PHA). Metabolic Engineering, 2018, 49, 275-286.	7.0	85
87	The mechanical properties and in vitro biodegradation and biocompatibility of UV-treated poly(3-hydroxybutyrate-co-3-hydroxyhexanoate). Biomaterials, 2006, 27, 2349-2357.	11.4	83
88	The power of synthetic biology for bioproduction, remediation and pollution control. EMBO Reports, 2018, 19, .	4.5	83
89	Engineering microorganisms for improving polyhydroxyalkanoate biosynthesis. Current Opinion in Biotechnology, 2018, 53, 20-25.	6.6	82
90	The effect of 3-hydroxybutyrate and its derivatives on the growth of glial cells. Biomaterials, 2007, 28, 3608-3616.	11.4	79

#	Article	IF	Citations
91	Interactions between a poly(3-hydroxybutyrate-co-3-hydroxyvalerate-co-3-hydroxyhexanoate) terpolyester and human keratinocytes. Biomaterials, 2008, 29, 3807-3814.	11.4	79
92	Production and characterization of homopolymer poly(3-hydroxyvalerate) (PHV) accumulated by wild type and recombinant Aeromonas hydrophila strain 4AK4. Bioresource Technology, 2009, 100, 4296-4299.	9.6	78
93	The application of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) scaffolds for tendon repair in the rat model. Biomaterials, 2013, 34, 6683-6694.	11.4	78
94	Increasing oxygen availability for improving poly(3-hydroxybutyrate) production by Halomonas. Metabolic Engineering, 2018, 45, 20-31.	7.0	78
95	Polyhydroxyalkanoates (PHA) toward cost competitiveness and functionality. Advanced Industrial and Engineering Polymer Research, 2020, 3, 1-7.	4.7	78
96	Studies on Comonomer Compositional Distribution of Bacterial Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate)s and Thermal Characteristics of Their Factions. Biomacromolecules, 2002, 3, 1071-1077.	5.4	77
97	Enhanced production of d-(Ã¢ÂˆÂ’)-3-hydroxybutyric acid by recombinantEscherichia coli. FEMS Microbiology Letters, 2002, 213, 59-65.	1.8	77
98	Synthetic Biology and Genome-Editing Tools for Improving PHA Metabolic Engineering. Trends in Biotechnology, 2020, 38, 689-700.	9.3	77
99	Low carbon strategies for sustainable bio-alkane gas production and renewable energy. Energy and Environmental Science, 2020, 13, 1818-1831.	30.8	77
100	Disruption of the polyhydroxyalkanoate synthase gene in<i>Aeromonas hydrophila</i>reduces its survival ability under stress conditions. FEMS Microbiology Letters, 2007, 276, 34-41.	1.8	75
101	Production and characterization of medium-chain-length polyhydroxyalkanoate with high 3-hydroxytetradecanoate monomer content by fadB and fadA knockout mutant of Pseudomonas putida KT2442. Applied Microbiology and Biotechnology, 2007, 76, 1153-1159.	3.6	75
102	Overexpression of NAD kinase in recombinant Escherichia coli harboring the phbCAB operon improves poly(3-hydroxybutyrate) production. Applied Microbiology and Biotechnology, 2009, 83, 939-947.	3.6	75
103	Polyhydroxyalkanoate synthases PhaC1 and PhaC2 fromPseudomonas stutzeri1317 had different substrate specificities. FEMS Microbiology Letters, 2004, 234, 231-237.	1.8	73
104	Engineering the growth pattern and cell morphology for enhanced PHB production by Escherichia coli. Applied Microbiology and Biotechnology, 2016, 100, 9907-9916.	3.6	73
105	Rational flux-tuning of Halomonas bluephagenesis for co-production of bioplastic PHB and ectoine. Nature Communications, 2020, 11, 3313.	12.8	72
106	Sustained release of PI3K inhibitor from PHA nanoparticles and in vitro growth inhibition of cancer cell lines. Applied Microbiology and Biotechnology, 2011, 89, 1423-1433.	3.6	71
107	Hyperproduction of poly(4-hydroxybutyrate) from glucose by recombinant Escherichia coli. Microbial Cell Factories, 2012, 11, 54.	4.0	71
108	The expression of cross-linked elastin by rabbit blood vessel smooth muscle cells cultured in polyhydroxyalkanoate scaffolds. Biomaterials, 2008, 29, 4187-4194.	11.4	70

#	Article	IF	Citations
109	Microbial Synthesis of Functional Homo-, Random, and Block Polyhydroxyalkanoates by Î²-Oxidation Deleted <i>Pseudomonas entomophila</i>. Biomacromolecules, 2014, 15, 2310-2319.	5.4	70
110	Production and characterization of terpolyester poly(3-hydroxybutyrate-co-3-hydroxyvalerate-co-3-hydroxyhexanoate) by recombinant Aeromonas hydrophila 4AK4 harboring genes phaAB. Process Biochemistry, 2007, 42, 1342-1347.	3.7	69
111	Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) as an injectable implant system for prevention of post-surgical tissue adhesion. Biomaterials, 2009, 30, 3075-3083.	11.4	69
112	Controlling cell volume for efficient PHB production by Halomonas. Metabolic Engineering, 2017, 44, 30-37.	7.0	69
113	Pseudomonas putida KT2442 as a platform for the biosynthesis of polyhydroxyalkanoates with adjustable monomer contents and compositions. Bioresource Technology, 2013, 142, 225-231.	9.6	68
114	Enhanced production of polyhydroxybutyrate by multiple dividing E. coli. Microbial Cell Factories, 2016, 15, 128.	4.0	68
115	Microbial polyhydroxyalkanoates as medical implant biomaterials. Artificial Cells, Nanomedicine and Biotechnology, 2018, 46, 1-18.	2.8	68
116	In vitro study on hemocompatibility and cytocompatibility of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate). Journal of Biomaterials Science, Polymer Edition, 2006, 17, 1107-1121.	3.5	67
117	Engineering cell wall synthesis mechanism for enhanced PHB accumulation in E. coli. Metabolic Engineering, 2018, 45, 32-42.	7.0	67
118	A novel self-cleaving phasin tag for purification of recombinant proteins based on hydrophobic polyhydroxyalkanoate nanoparticles. Lab on A Chip, 2008, 8, 1957.	6.0	66
119	Semirational Approach for Ultrahigh Poly(3-hydroxybutyrate) Accumulation in <i>Escherichia coli</i> by Combining One-Step Library Construction and High-Throughput Screening. ACS Synthetic Biology, 2016, 5, 1308-1317.	3.8	66
120	The impact of PHB accumulation on l-glutamate production by recombinant Corynebacterium glutamicum. Journal of Biotechnology, 2007, 132, 273-279.	3.8	65
121	Chromosome engineering of the TCA cycle in Halomonas bluephagenesis for production of copolymers of 3-hydroxybutyrate and 3-hydroxyvalerate (PHBV). Metabolic Engineering, 2019, 54, 69-82.	7.0	65
122	Production of Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) from Gluconate and Glucose by Recombinant Aeromonas hydrophila and Pseudomonas putida. Biotechnology Letters, 2005, 27, 1381-1386.	2.2	64
123	Comparative genomics study of polyhydroxyalkanoates (PHA) and ectoine relevant genes from Halomonas sp. TD01 revealed extensive horizontal gene transfer events and co-evolutionary relationships. Microbial Cell Factories, 2011, 10, 88.	4.0	64
124	MicroRNA regulation associated chondrogenesis of mouse MSCs grown on polyhydroxyalkanoates. Biomaterials, 2011, 32, 6435-6444.	11.4	64
125	Effect of lipase treatment on the biocompatibility of microbial polyhydroxyalkanoates. Journal of Materials Science: Materials in Medicine, 2002, 13, 849-854.	3.6	63
126	Construction ofpha-Operon-Defined Knockout Mutants ofPseudomonas putida KT2442 and their Applications in Poly(hydroxyalkanoate) Production. Macromolecular Bioscience, 2007, 7, 227-233.	4.1	63

#	Article	IF	Citations
127	Production of polyhydroxyalkanoates (PHA) by bacterial consortium from excess sludge fermentation liquid at laboratory and pilot scales. Bioresource Technology, 2014, 171, 159-167.	9.6	63
128	Nextâ€Generation Industrial Biotechnologyâ€Transforming the Current Industrial Biotechnology into Competitive Processes. Biotechnology Journal, 2019, 14, e1800437.	3.5	63
129	Metabolic Engineering for the Production of Copolyesters Consisting of 3-Hydroxybutyrate and 3-Hydroxyhexanoate byAeromonas hydrophila. Macromolecular Bioscience, 2004, 4, 255-261.	4.1	62
130	Microbial production of R-3-hydroxybutyric acid by recombinant E. coli harboring genes of phbA, phbB, and tesB. Applied Microbiology and Biotechnology, 2007, 76, 811-818.	3.6	62
131	The â€˜PHAomeâ€™. Trends in Biotechnology, 2015, 33, 559-564.	9.3	62
132	Production of poly-b-hydroxybutyrate by Azotobacter vinelandii in a two-stage fermentation process. Biotechnology Letters, 1997, 11, 347-350.	0.5	61
133	Co-production of microbial polyhydroxyalkanoates with other chemicals. Metabolic Engineering, 2017, 43, 29-36.	7.0	61
134	Biocompatibility of poly(3-hydroxybutyrate-co-3-hydroxyvalerate-co-3-hydroxyhexanoate) with bone marrow mesenchymal stem cells. Acta Biomaterialia, 2009, 5, 1115-1125.	8.3	60
135	The effect of 3-hydroxybutyrate methyl ester on learning and memory in mice. Biomaterials, 2009, 30, 1532-1541.	11.4	60
136	Synthetic biology of microbes synthesizing polyhydroxyalkanoates (PHA). Synthetic and Systems Biotechnology, 2016, 1, 236-242.	3.7	60
137	The mechanism of anti-osteoporosis effects of 3-hydroxybutyrate and derivatives under simulated microgravity. Biomaterials, 2014, 35, 8273-8283.	11.4	59
138	Influence ofdl-Î²-Hydroxybutyric Acid on Cell Proliferation and Calcium Influxâ€. Biomacromolecules, 2005, 6, 593-597.	5.4	58
139	Production of two monomer structures containing medium-chain-length polyhydroxyalkanoates by Î²-oxidation-impaired mutant of Pseudomonas putida KT2442. Bioresource Technology, 2009, 100, 4891-4894.	9.6	57
140	Pilot Scaleâ€up of Poly(3â€hydroxybutyrateâ€<i>co</i>â€4â€hydroxybutyrate) Production by <i>Halomonas bluephagenesis</i> via Cell Growth Adapted Optimization Process. Biotechnology Journal, 2018, 13, e1800074.	3.5	57
141	Production of 3-hydroxypropionate homopolymer and poly(3-hydroxypropionate-co-4-hydroxybutyrate) copolymer by recombinant Escherichia coli. Metabolic Engineering, 2011, 13, 777-785.	7.0	56
142	Microbial Synthesis of 5-Aminolevulinic Acid and Its Coproduction with Polyhydroxybutyrate. ACS Synthetic Biology, 2016, 5, 1264-1274.	3.8	56
143	Manipulation of polyhydroxyalkanoate granular sizes in Halomonas bluephagenesis. Metabolic Engineering, 2019, 54, 117-126.	7.0	56
144	Construction of a sustainable 3-hydroxybutyrate-producing probiotic Escherichia coli for treatment of colitis. Cellular and Molecular Immunology, 2021, 18, 2344-2357.	10.5	56

#	Article	IF	Citations
145	Synthesis, characterization and biocompatibility of novel biodegradable poly[((<i>R</i>)â€3â€hydroxybutyrate)â€<i>block</i>â€(<scp>D</scp>,<scp>L</scp>â€lactide)â€<i>block</i>â€(Îµâ€caprolactone)] triblock copolymers. Polymer International, 2008, 57, 939-949.	3.1	54
146	Novel amphiphilic poly(esterâ€urethane)s based on poly[(<i>R</i>)â€3â€hydroxyalkanoate]: synthesis, biocompatibility and aggregation in aqueous solution. Polymer International, 2008, 57, 887-894.	3.1	53
147	Production and characterization of terpolyester poly(3-hydroxybutyrate-co-4-hydroxybutyrate-co-3-hydroxyhexanoate) by recombinant Aeromonas hydrophila 4AK4 harboring genes phaPCJ. Biochemical Engineering Journal, 2008, 38, 384-389.	3.6	53
148	Biosynthesis and Characterization of Diblock Copolymer of P(3-Hydroxypropionate)-<i>block</i>-P(4-hydroxybutyrate) from Recombinant <i>Escherichia coli</i>. Biomacromolecules, 2013, 14, 862-870.	5.4	53
149	Additive manufacturing of poly[(<i>R</i>)-3-hydroxybutyrate-<i>co</i>-(<i>R</i>)-3-hydroxyhexanoate] scaffolds for engineered bone development. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 175-186.	2.7	53
150	Occurrence of poly-d(Ã¢Â^Â')-3-hydroxyalkanoates in the genusBacillus. FEMS Microbiology Letters, 1991, 84, 173-176.	1.8	52
151	Medical applications of biopolyesters polyhydroxyalkanoates. Chinese Journal of Polymer Science (English Edition), 2013, 31, 719-736.	3.8	52
152	A Multiplex Genome Editing Method for Escherichia coli Based on CRISPR-Cas12a. Frontiers in Microbiology, 2018, 9, 2307.	3.5	52
153	Microbial engineering for easy downstream processing. Biotechnology Advances, 2019, 37, 107365.	11.7	52
154	Study of Thermal Melting Behavior of Microbial Polyhydroxyalkanoate Using Two-Dimensional Fourier Transform Infrared Correlation Spectroscopy. Applied Spectroscopy, 2001, 55, 888-893.	2.2	51
155	Synthesis of Mediumâ€Chainâ€Length Polyhydroxyalkanoate Homopolymers, Random Copolymers, and Block Copolymers by an Engineered Strain of <i>Pseudomonas entomophila</i>. Advanced Healthcare Materials, 2017, 6, 1601017.	7.6	51
156	Thermal analyses of poly(3-hydroxybutyrate), poly(3-hydroxybutyrate-co-3-hydroxyvalerate), and poly(3-hydroxybutyrate-co-3-hydroxyhexanoate). Journal of Applied Polymer Science, 2001, 82, 90-98.	2.6	50
157	Synthesis, Characterization and Biocompatibility of Biodegradable Elastomeric Poly(ether-ester) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Melting Polymerization. Journal of Biomaterials Science, Polymer Edition, 2009, 20, 1179-1202.	3.5	49
158	Synthesis, Characterization and Application of Thermoresponsive Polyhydroxyalkanoate-<i>graft</i>-Poly(<i>N</i>-isopropylacrylamide). Biomacromolecules, 2016, 17, 2680-2690.	5.4	49
159	Controlling microbial PHB synthesis via CRISPRi. Applied Microbiology and Biotechnology, 2017, 101, 5861-5867.	3.6	49
160	Hyperproduction of 3-hydroxypropionate by Halomonas bluephagenesis. Nature Communications, 2021, 12, 1513.	12.8	49
161	Study of microbial polyhydroxyalkanoates using two-dimensional Fourier-transform infrared correlation spectroscopy. Journal of Applied Polymer Science, 2001, 82, 934-940.	2.6	48
162	Benzene containing polyhydroxyalkanoates homo- and copolymers synthesized by genome edited Pseudomonas entomophila. Science China Life Sciences, 2014, 57, 4-10.	4.9	48

#	Article	IF	Citations
163	Industrial Production of PHA. Microbiology Monographs, 2010, , 121-132.	0.6	47
164	The use of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) scaffolds for tarsal repair in eyelid reconstruction in the rat. Biomaterials, 2010, 31, 7512-7518.	11.4	47
165	Production of poly-D(-)-3-hydroxybutyrate and poly-D(-)-3-hydroxyvalerate by strains ofAlcaligenes latus. Antonie Van Leeuwenhoek, 1991, 60, 61-66.	1.7	46
166	Effects of chromosomal gene copy number and locations on polyhydroxyalkanoate synthesis by Escherichia coli and Halomonas sp.. Applied Microbiology and Biotechnology, 2015, 99, 5523-5534.	3.6	46
167	Construction of Halomonas bluephagenesis capable of high cell density growth for efficient PHA production. Applied Microbiology and Biotechnology, 2018, 102, 4499-4510.	3.6	46
168	Engineering selfâ€flocculating <i>Halomonas campaniensis</i> for wastewaterless open and continuous fermentation. Biotechnology and Bioengineering, 2019, 116, 805-815.	3.3	46
169	EngineeredAeromonas hydrophilafor enhanced production of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) with alterable monomers composition. FEMS Microbiology Letters, 2004, 239, 195-201.	1.8	45
170	Effect of over-expression of phasin gene fromAeromonas hydrophilaon biosynthesis of copolyesters of 3-hydroxybutyrate and 3-hydroxyhexanoate. FEMS Microbiology Letters, 2005, 244, 19-25.	1.8	45
171	Study on Decellularized Porcine Aortic Valve/Poly (3-hydroxybutyrate-co-3-hydroxyhexanoate) Hybrid Heart Valve in Sheep Model. Artificial Organs, 2007, 31, 689-697.	1.9	45
172	Characterization, biodegradability and blood compatibility of poly[(R)â€3â€hydroxybutyrate] based poly(esterâ€urethane)s. Journal of Biomedical Materials Research - Part A, 2009, 90A, 1162-1176.	4.0	45
173	Microbial production of meso-2,3-butanediol by metabolically engineered Escherichia coli under low oxygen condition. Applied Microbiology and Biotechnology, 2010, 87, 2001-2009.	3.6	45
174	Production of poly(3-hydroxypropionate) and poly(3-hydroxybutyrate-co-3-hydroxypropionate) from glucose by engineering Escherichia coli. Metabolic Engineering, 2015, 29, 189-195.	7.0	45
175	Biosynthesis of functional polyhydroxyalkanoates by engineered Halomonas bluephagenesis. Metabolic Engineering, 2020, 59, 119-130.	7.0	45
176	Mutation on N-terminus of polyhydroxybutyrate synthase of Ralstonia eutropha enhanced PHB accumulation. Applied Microbiology and Biotechnology, 2006, 72, 896-905.	3.6	44
177	Production of polyhydroxyalkanoates by Escherichia coli mutants with defected mixed acid fermentation pathways. Applied Microbiology and Biotechnology, 2010, 87, 2247-2256.	3.6	44
178	Properties of a new gasoline oxygenate blend component: 3-Hydroxybutyrate methyl ester produced from bacterial poly-3-hydroxybutyrate. Biomass and Bioenergy, 2010, 34, 1216-1222.	5.7	44
179	Enhanced production of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) via manipulating the fatty acid ÃŽÂ²-oxidation pathway inE. coli. FEMS Microbiology Letters, 2003, 221, 97-101.	1.8	43
180	Thioesterase II of Escherichia coli Plays an Important Role in 3-Hydroxydecanoic Acid Production. Applied and Environmental Microbiology, 2004, 70, 3807-3813.	3.1	43

#	Article	IF	Citations
181	A lower specificity PhaC2 synthase from Pseudomonas stutzeri catalyses the production of copolyesters consisting of short-chain-length and medium-chain-length 3-hydroxyalkanoates. Antonie Van Leeuwenhoek, 2006, 89, 157-167.	1.7	43
182	Microbial production of l-glutamate and l-glutamine by recombinant Corynebacterium glutamicum harboring Vitreoscilla hemoglobin gene vgb. Applied Microbiology and Biotechnology, 2008, 77, 1297-1304.	3.6	43
183	Physical Properties and Biocompatibility of Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) Blended with Poly(3-hydroxybutyrate-co-4-hydroxybutyrate). Journal of Biomaterials Science, Polymer Edition, 2009, 20, 1537-1553.	3.5	43
184	Influence of poly(3â€hydroxybutyrateâ€<i>co</i>â€4â€hydroxybutyrateâ€<i>co</i>â€3â€hydroxyhexanoate) on growth and osteogenic differentiation of human bone marrowâ€derived mesenchymal stem cells. Journal of Biomedical Materials Research - Part A, 2009, 90A, 894-905.	4.0	43
185	Microbial production of 3-hydroxydodecanoic acid by pha operon and fadBA knockout mutant of Pseudomonas putida KT2442 harboring tesB gene. Applied Microbiology and Biotechnology, 2009, 83, 513-519.	3.6	43
186	Poly (3-Hydroxybutyrate-co-3-Hydroxyhexanoate)/Collagen Hybrid Scaffolds for Tissue Engineering Applications. Tissue Engineering - Part C: Methods, 2013, 19, 577-585.	2.1	43
187	Enhanced proliferation and differentiation of neural stem cells grown on PHA films coated with recombinant fusion proteins. Acta Biomaterialia, 2013, 9, 7845-7854.	8.3	43
188	Engineering of core promoter regions enables the construction of constitutive and inducible promoters in Halomonas sp.. Biotechnology Journal, 2016, 11, 219-227.	3.5	43
189	Metabolic engineering of Aeromonas hydrophila for the enhanced production of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate). Applied Microbiology and Biotechnology, 2006, 69, 537-542.	3.6	41
190	Study of miscibility, crystallization, mechanical properties, and thermal stability of blends of poly(3-hydroxybutyrate) and poly(3-hydroxybutyrate-co-4-hydroxybutyrate). Journal of Applied Polymer Science, 2007, 105, 3402-3408.	2.6	41
191	Study of enzymatic degradation of microbial copolyesters consisting of 3-hydroxybutyrate and medium-chain-length 3-hydroxyalkanoates. Polymer Degradation and Stability, 2007, 92, 1708-1714.	5.8	41
192	Synthesis, Characterization and Cell Compatibility of Novel Poly(ester urethane)s Based on Poly(3-hydroxybutyrate-co-4-hydroxybutyrate) and Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) Prepared by Melting Polymerization. Journal of Biomaterials Science, Polymer Edition, 2009, 20, 1451-1471.	3.5	41
193	Poly(3â€hydroxybutyrateâ€<i>co</i>â€Râ€3â€hydroxyhexanoate) Nanoparticles with Polyethylenimine Coat as Simple, Safe, and Versatile Vehicles for Cell Targeting: Population Characteristics, Cell Uptake, and Intracellular Trafficking. Advanced Healthcare Materials, 2014, 3, 817-824.	7.6	41
194	Comparative analysis of CRISPRâ€Cas systems in <i>Klebsiella</i> genomes. Journal of Basic Microbiology, 2017, 57, 325-336.	3.3	41
195	Efficient Genome Engineering of a Virulent Klebsiella Bacteriophage Using CRISPR-Cas9. Journal of Virology, 2018, 92, .	3.4	41
196	Ketone Body 3â€Hydroxybutyrate Ameliorates Atherosclerosis via Receptor Gpr109aâ€Mediated Calcium Influx. Advanced Science, 2021, 8, 2003410.	11.2	41
197	Gelatin Blending Improves the Performance of Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) Films for Biomedical Applicationâ€. Biomacromolecules, 2005, 6, 566-571.	5.4	40
198	Polyhydroxyalkanoate copolyesters produced by Ralstonia eutropha PHBâˆ’4 harboring a low-substrate-specificity PHA synthase PhaC2Ps from Pseudomonas stutzeri 1317. Biochemical Engineering Journal, 2006, 32, 218-225.	3.6	40

#	Article	IF	Citations
199	Development of an enhanced chromosomal expression system based on porin synthesis operon for halophile Halomonas sp.. Applied Microbiology and Biotechnology, 2014, 98, 8987-8997.	3.6	40
200	Endotoxin Removing Method Based on Lipopolysaccharide Binding Protein and Polyhydroxyalkanoate Binding Protein PhaP. Biomacromolecules, 2011, 12, 602-608.	5.4	39
201	An assessment of the risks of carcinogenicity associated with polyhydroxyalkanoates through an analysis of DNA aneuploid and telomerase activity. Biomaterials, 2011, 32, 2546-2555.	11.4	39
202	Biosynthesis and characterization of 3â€hydroxyalkanoate terpolyesters with adjustable properties by <i>Aeromonas hydrophila</i>. Biotechnology and Bioengineering, 2009, 104, 582-589.	3.3	38
203	Stimulus response-based fine-tuning of polyhydroxyalkanoate pathway in Halomonas. Metabolic Engineering, 2020, 57, 85-95.	7.0	38
204	Effect of expressing polyhydroxybutyrate synthesis genes (phbCAB) in Streptococcus zooepidemicus on production of lactic acid and hyaluronic acid. Applied Microbiology and Biotechnology, 2006, 71, 222-227.	3.6	37
205	Blending and characterizations of microbial poly(3-hydroxybutyrate) with dendrimers. Journal of Applied Polymer Science, 2006, 102, 3782-3790.	2.6	37
206	Microbial production of 4-hydroxybutyrate, poly-4-hydroxybutyrate, and poly(3-hydroxybutyrate-co-4-hydroxybutyrate) by recombinant microorganisms. Applied Microbiology and Biotechnology, 2009, 84, 909-916.	3.6	37
207	Reversible thermal regulation for bifunctional dynamic control of gene expression in Escherichia coli. Nature Communications, 2021, 12, 1411.	12.8	37
208	Applications of the VHb Gene vgb for Improved Microbial Fermentation Processes. Methods in Enzymology, 2008, 436, 273-287.	1.0	36
209	Application of polyhydroxyalkanoate binding protein PhaP as a bio-surfactant. Applied Microbiology and Biotechnology, 2011, 91, 1037-1047.	3.6	35
210	Enhanced co-production of hydrogen and poly-(R)-3-hydroxybutyrate by recombinant PHB producing E. coli over-expressing hydrogenase 3 and acetyl-CoA synthetase. Metabolic Engineering, 2012, 14, 496-503.	7.0	35
211	Comb-like temperature-responsive polyhydroxyalkanoate-graft-poly(2-dimethylamino-ethylmethacrylate) for controllable protein adsorption. Polymer Chemistry, 2016, 7, 5957-5965.	3.9	35
212	Reprogramming <i>Halomonas</i> for industrial production of chemicals. Journal of Industrial Microbiology and Biotechnology, 2018, 45, 545-554.	3.0	35
213	Different thermal behaviors of microbial polyesters poly(3-hydroxybutyrate-co-3-hydroxyvalerate-co-3-hydroxyhexanoate) and poly(3-hydroxybutyrate-co-3-hydroxyhexanoate). Polymer, 2010, 51, 6037-6046.	3.8	34
214	Effects of cascaded vgb promoters on poly(hydroxybutyrate) (PHB) synthesis by recombinant Escherichia coli grown micro-aerobically. Applied Microbiology and Biotechnology, 2014, 98, 10013-10021.	3.6	34
215	<i>Halomonas</i>as a chassis. Essays in Biochemistry, 2021, 65, 393-403.	4.7	34
216	Synthetic Biology of Polyhydroxyalkanoates (PHA). Advances in Biochemical Engineering/Biotechnology, 2017, 162, 147-174.	1.1	33

#	Article	IF	Citations
217	Halophiles as Chassis for Bioproduction. Advanced Biology, 2018, 2, 1800088.	3.0	33
218	MIXed plastics biodegradation and UPcycling using microbial communities: EU Horizon 2020 project MIX-UP started January 2020. Environmental Sciences Europe, 2021, 33, 99.	5.5	33
219	Polymorphic crystallization of fractionated microbial medium-chain-length polyhydroxyalkanoates. Polymer, 2009, 50, 4378-4388.	3.8	32
220	An updated overview on the regulatory circuits of polyhydroxyalkanoates synthesis. Microbial Biotechnology, 2022, 15, 1446-1470.	4.2	32
221	Production of poly(3-hydroxybutyrate- co -3-hydroxyhexanoate) with flexible 3-hydroxyhexanoate content in Aeromonas hydrophila CGMCC 0911. Applied Microbiology and Biotechnology, 2004, 64, 41-45.	3.6	31
222	Effect of anaerobic promoters on the microaerobic production of polyhydroxybutyrate (PHB) in recombinant Escherichia coli. Applied Microbiology and Biotechnology, 2009, 82, 703-712.	3.6	31
223	Biosynthesis of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) by recombinant Escherichia coli harboring propionyl-CoA synthase gene (prpE) or propionate permease gene (prpP). Biochemical Engineering Journal, 2009, 43, 72-77.	3.6	31
224	Fabrication of carbon nanotube (CNT)/poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) (PHBHHx) nanocomposite films for human mesenchymal stem cell (hMSC) differentiation. Polymer Chemistry, 2013, 4, 4490.	3.9	31
225	Engineering <i>Halomonas</i> spp. as A Lowâ€Cost Production Host for Production of Bioâ€surfactant Protein PhaP. Biotechnology Journal, 2016, 11, 1595-1604.	3.5	31
226	Engineering Halomonas bluephagenesis for L-Threonine production. Metabolic Engineering, 2020, 60, 119-127.	7.0	31
227	Induced production of rabbit articular cartilage-derived chondrocyte collagen II on polyhydroxyalkanoate blends. Journal of Biomaterials Science, Polymer Edition, 2003, 14, 615-624.	3.5	30
228	Preparation and Evaluation of Porous Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate)â€” Hydroxyapatite Composite Scaffolds. Journal of Biomaterials Applications, 2008, 22, 293-307.	2.4	30
229	Production of medium-chain-length 3-hydroxyalkanoic acids by Î²-oxidation and phaC operon deleted Pseudomonas entomophila harboring thioesterase gene. Metabolic Engineering, 2013, 17, 23-29.	7.0	30
230	Structural Insights on PHA Binding Protein PhaP from Aeromonas hydrophila. Scientific Reports, 2016, 6, 39424.	3.3	30
231	Production of polyhydroxyalkanoates by Pseudomonas nitroreducens. Antonie Van Leeuwenhoek, 1999, 75, 345-349.	1.7	29
232	Metabolic engineering for microbial production of polyhydroxyalkanoates consisting of high 3-hydroxyhexanoate content by recombinant Aeromonas hydrophila. Bioresource Technology, 2010, 101, 6096-6102.	9.6	29
233	Highly Efficient Fluorescent Material Based on Rare-Earth-Modified Polyhydroxyalkanoates. Biomacromolecules, 2019, 20, 3233-3241.	5.4	29
234	Two-dimensional Fourier transform infrared spectroscopy study of biosynthesized poly(hydroxybutyrate-co-hydroxyhexanoate) and poly(hydroxybutyrate-co-hydroxyvalerate). Journal of Polymer Science, Part B: Polymer Physics, 2002, 40, 649-656.	2.1	28

#	Article	IF	Citations
235	Suspended polyhydroxyalkanoate microspheres as 3D carriers for mammalian cell growth. Artificial Cells, Nanomedicine and Biotechnology, 2018, 46, 473-483.	2.8	28
236	Graphene oxide as an antimicrobial agent can extend the vase life of cut flowers. Nano Research, 2018, 11, 6010-6022.	10.4	28
237	Terraces on banded spherulites of polyhydroxyalkanoates. Journal of Polymer Science, Part B: Polymer Physics, 2003, 41, 2128-2134.	2.1	27
238	Production of 3-hydroxydecanoic acid by recombinant Escherichia coli HB101 harboring phaG gene. Antonie Van Leeuwenhoek, 2004, 85, 93-101.	1.7	27
239	Growth of Human Umbilical Cord Wharton's Jelly-Derived Mesenchymal Stem Cells on the Terpolyester Poly(3-hydroxybutyrate-co-3-hydroxyvalerate-co-3-hydroxyhexanoate). Journal of Biomaterials Science, Polymer Edition, 2009, 20, 325-339.	3.5	27
240	A tight cold-inducible switch built by coupling thermosensitive transcriptional and proteolytic regulatory parts. Nucleic Acids Research, 2019, 47, e137-e137.	14.5	27
241	Engineering the permeability of Halomonas bluephagenesis enhanced its chassis properties. Metabolic Engineering, 2021, 67, 53-66.	7.0	27
242	DNA Fragments Assembly Based on Nicking Enzyme System. PLoS ONE, 2013, 8, e57943.	2.5	27
243	PCR cloning of type II polyhydroxyalkanoate biosynthesis genes from twoPseudomonasstrains. FEMS Microbiology Letters, 2001, 198, 165-170.	1.8	26
244	PCR cloning of polyhydroxyalkanoate biosynthesis genes fromBurkholderia caryophylliand their functional expression in recombinantEscherichia coli. FEMS Microbiology Letters, 2002, 210, 49-54.	1.8	26
245	<i>In vitro</i> investigation of maleated poly(3â€hydroxybutyrateâ€<i>co</i>â€3â€hydroxyhexanoate) for its biocompatibility to mouse fibroblast L929 and human microvascular endothelial cells. Journal of Biomedical Materials Research - Part A, 2008, 87A, 832-842.	4.0	26
246	Biofunctionalization of Polymers and Their Applications. Advances in Biochemical Engineering/Biotechnology, 2010, 125, 29-45.	1.1	26
247	A novel cell autolysis system for cost-competitive downstream processing. Applied Microbiology and Biotechnology, 2016, 100, 9103-9110.	3.6	26
248	Engineering Pseudomonas entomophila for synthesis of copolymers with defined fractions of 3-hydroxybutyrate and medium-chain-length 3-hydroxyalkanoates. Metabolic Engineering, 2019, 52, 253-262.	7.0	26
249	Molecular Cloning of Polyhydroxyalkanoate Synthesis Operon from Aeromonas hydrophila and Its Expression in Escherichia coli. Biotechnology Progress, 2004, 20, 1332-1336.	2.6	25
250	Microbial production of medium-chain-length 3-hydroxyalkanoic acids by recombinant Pseudomonas putida KT2442 harboring genes fadL, fadD and phaZ. FEMS Microbiology Letters, 2008, 283, 167-175.	1.8	25
251	Induced apoptosis of osteoblasts proliferating on polyhydroxyalkanoates. Biomaterials, 2013, 34, 3737-3746.	11.4	25
252	Production of d-(Ã¢Â^Â')-3-hydroxyalkanoic acid by recombinantEscherichia coli. FEMS Microbiology Letters, 2003, 218, 59-64.	1.8	24

#	Article	IF	Citations
253	Application of polyhydroxyalkanoate (PHA) synthesis regulatory protein PhaR as a bio-surfactant and bactericidal agent. Journal of Biotechnology, 2013, 166, 34-41.	3.8	24
254	Microbial synthesis of a novel terpolyester P(<scp>LA</scp>â€<i>co</i>â€ƒ<scp>HB</scp>â€<i>co</i>â€ƒ<scp>HP</scp>) from lowâ€cost substrates. Microbial Biotechnology, 2017, 10, 371-380.	4.2	24
255	Engineering Halomonas bluephagenesis as a chassis for bioproduction from starch. Metabolic Engineering, 2021, 64, 134-145.	7.0	24
256	Thermal and crystallinity property studies of poly (<scp>L</scp>â€lactic acid) blended with oligomers of 3â€hydroxybutyrate or dendrimers of hydroxyalkanoic acids. Journal of Applied Polymer Science, 2009, 111, 1720-1727.	2.6	23
257	Synthesis and Characterization of Electroconductive PHA-<i>graft</i>-Graphene Nanocomposites. Biomacromolecules, 2019, 20, 645-652.	5.4	23
258	Construction of highly efficient E. coli expression systems containing low oxygen induced promoter and partition region. Applied Microbiology and Biotechnology, 2005, 68, 346-354.	3.6	22
259	Fabrication of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) (PHBHHx) microstructures using soft lithography for scaffold applications. Biomaterials, 2006, 27, 2550-2557.	11.4	22
260	Biocompatibility of poly (3-hydroxybutyrate-co-3-hydroxyhexanoate) modified by silk fibroin. Journal of Materials Science: Materials in Medicine, 2006, 17, 749-758.	3.6	22
261	A mini-Mu transposon-based method for multiple DNA fragment integration into bacterial genomes. Applied Microbiology and Biotechnology, 2010, 87, 1533-1541.	3.6	22
262	The cytocompatability of polyhydroxyalkanoates coated with a fusion protein of PHA repressor protein (PhaR) and Lys-Gln-Ala-Gly-Asp-Val (KQAGDV) polypeptide. Biomaterials, 2012, 33, 2593-2599.	11.4	22
263	On the nutritional and therapeutic effects of ketone body d-Î²-hydroxybutyrate. Applied Microbiology and Biotechnology, 2021, 105, 6229-6243.	3.6	22
264	Introduction of Bacterial Plastics PHA, PLA, PBS, PE, PTT, and PPP. Microbiology Monographs, 2010, , 1-16.	0.6	21
265	Effects of uracil on crystallization and rheological property of poly(R-3-hydroxybutyrate-co-4-hydroxybutyrate). Composites Part A: Applied Science and Manufacturing, 2018, 109, 141-150.	7.6	21
266	Microbial Polyâ€ƒâ€Hydroxybutyrate (PHB) as a Feed Additive for Fishes and Piglets. Biotechnology Journal, 2019, 14, e1900132.	3.5	21
267	Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) Production in RecombinantAeromonas hydrophila 4AK4 HarboringphbA,phbB andvgb Genes. Macromolecular Symposia, 2005, 224, 21-34.	0.7	20
268	A transferable heterogeneous two-hybrid system in Escherichia coli based on polyhydroxyalkanoates synthesis regulatory protein PhaR. Microbial Cell Factories, 2011, 10, 21.	4.0	20
269	Production of polyesters consisting of medium chain length 3-hydroxyalkanoic acids by Pseudomonas mendocina 0806 from various carbon sources. Antonie Van Leeuwenhoek, 2000, 77, 31-36.	1.7	19
270	Metabolic Engineering for Microbial Production and Applications of Copolyesters Consisting of 3-Hydroxybutyrate and Medium-Chain-Length 3-Hydroxyalkanoates. Macromolecular Bioscience, 2007, 7, 174-182.	4.1	19

#	Article	IF	Citations
271	Engineering of polyhydroxyalkanoate (PHA) synthase PhaC2Ps of Pseudomonas stutzeri via site-specific mutation for efficient production of PHA copolymers. Applied Microbiology and Biotechnology, 2011, 91, 655-665.	3.6	19
272	Genomic study of polyhydroxyalkanoates producing Aeromonas hydrophila 4AK4. Applied Microbiology and Biotechnology, 2013, 97, 9099-9109.	3.6	19
273	Synthesis and Characterization of Polyhydroxyalkanoate Organo/Hydrogels. Biomacromolecules, 2019, 20, 3303-3312.	5.4	19
274	Polyhydroxyalkanoate synthases PhaC1 and PhaC2 from Pseudomonas stutzeri 1317 had different substrate specificities. FEMS Microbiology Letters, 2004, 234, 231-237.	1.8	19
275	Phase Behavior and Thermal Properties for Binary Blends of Bacterial Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate)s with Narrow-Comonomer-Unit Compositional Distribution. Macromolecular Bioscience, 2003, 3, 310-319.	4.1	18
276	Molecular cloning and functional analysis of two polyhydroxyalkanoate synthases from two strains ofAeromonas hydrophilaspp.. FEMS Microbiology Letters, 2005, 243, 149-155.	1.8	18
277	Genetic engineering of Pseudomonas putida KT2442 for biotransformation of aromatic compounds to chiral cis-diols. Journal of Biotechnology, 2007, 132, 246-250.	3.8	18
278	Study on the biocompatibility of novel terpolyester poly(3â€hydroxybutyrateâ€<i>co</i>â€3â€hydroxyvalerateâ€<i>co</i>â€3â€hydroxyhexanoate). Journal of Biomedical Materials Research - Part A, 2008, 87A, 441-449.	4.0	18
279	Production of copolyesters of 3-hydroxybutyrate and medium-chain-length 3-hydroxyalkanoates by E. coli containing an optimized PHA synthase gene. Microbial Cell Factories, 2012, 11, 130.	4.0	18
280	Molecular cloning and functional analysis of (R)-3-hydroxyacyl-acyl carrier protein:coenzyme A transacylase fromPseudomonas mendocinaLZ. FEMS Microbiology Letters, 2005, 252, 299-307.	1.8	17
281	Effect of poly(hydroxybutyrate-co-hydroxyhexanoate) microparticles on growth of murine fibroblast L929 cells. Polymer Degradation and Stability, 2006, 91, 3191-3196.	5.8	17
282	Effects of Oligo(3-hydroxyalkanoates) on the Viability and Insulin Secretion of Murine Beta Cells. Journal of Biomaterials Science, Polymer Edition, 2009, 20, 1729-1746.	3.5	17
283	Metabolic engineering of Aeromonas hydrophila 4AK4 for production of copolymers of 3-hydroxybutyrate and medium-chain-length 3-hydroxyalkanoate. Bioresource Technology, 2011, 102, 8123-8129.	9.6	17
284	Production of polyhydroxyalkanoate from acetate by metabolically engineered Aeromonas hydrophilia. Journal of Bioscience and Bioengineering, 2020, 130, 290-294.	2.2	17
285	Engineered Halomonas spp. for production of l-Lysine and cadaverine. Bioresource Technology, 2022, 349, 126865.	9.6	17
286	Hyperproduction of polyesters consisting of medium-chain-length hydroxyalkanoate monomers by strain Pseudomonas stutzeri 1317. Antonie Van Leeuwenhoek, 2000, 78, 43-49.	1.7	16
287	Biodegradable polyhydroxyalkanoates production from wheat straw by recombinant Halomonas elongata A1. International Journal of Biological Macromolecules, 2021, 187, 675-682.	7.5	16
288	Quantitation of yeast ceramides using high-performance liquid chromatographyâ€“evaporative light-scattering detection. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2002, 780, 161-169.	2.3	15

#	Article	IF	Citations
289	In vitro biocompatibility and degradation of terpolyester 3HB-co-4HB-co-3HHx, consisting of 3-hydroxybutyrate, 4-hydroxybutyrate and 3-hydroxyhexanoate. Journal of Biomaterials Science, Polymer Edition, 2008, 19, 1521-1533.	3.5	15
290	Biosynthesis of polyhydroxyalkanoate copolyesters by Aeromonas hydrophila mutant expressing a low-substrate-specificity PHA synthase PhaC2Ps. Biochemical Engineering Journal, 2007, 37, 144-150.	3.6	14
291	Microbial transformation of benzene to cis-3,5-cyclohexadien-1,2-diols by recombinant bacteria harboring toluene dioxygenase gene tod. Applied Microbiology and Biotechnology, 2007, 74, 43-49.	3.6	14
292	Guided growth of smooth muscle cell on poly(3â€hydroxybutyrateâ€<i>co</i>â€3â€hydroxyhexanoate) scaffolds with uniaxial microtubular structures. Journal of Biomedical Materials Research - Part A, 2008, 86A, 849-856.	4.0	14
293	Location of functional region at N-terminus of polyhydroxyalkanoate (PHA) synthase by N-terminal mutation and its effects on PHA synthesis. Biochemical Engineering Journal, 2008, 41, 67-73.	3.6	14
294	On the future fermentation. Microbial Biotechnology, 2021, 14, 18-21.	4.2	14
295	Imaging of nonlinear optical response in biopolyesters via second harmonic generation microscopy and its dependence on the crystalline structures. Polymer, 2007, 48, 348-355.	3.8	13
296	Biosynthesis and Characterization of Polyhydroxyalkanoate Copolyesters in Ralstonia eutropha PHBâˆ'4 Harboring a Low-Substrate-Specificity PHA Synthase PhaC2Ps from Pseudomonas stutzeri 1317. Chinese Journal of Chemical Engineering, 2007, 15, 391-396.	3.5	13
297	Sustained PDGF-BB release from PHBHHx loaded nanoparticles in 3D hydrogel/stem cell model. Journal of Biomedical Materials Research - Part A, 2015, 103, 282-288.	4.0	13
298	Tailorâ€Made Polyhydroxyalkanoates by Reconstructing <i>Pseudomonas Entomophila</i>. Advanced Materials, 2021, 33, e2102766.	21.0	13
299	Biosynthesis of diverse Î±,Ï‰-diol-derived polyhydroxyalkanoates by engineered Halomonas bluephagenesis. Metabolic Engineering, 2022, 72, 275-288.	7.0	13
300	Engineering peptidoglycan degradation related genes of Bacillus subtilis for better fermentation processes. Bioresource Technology, 2018, 248, 238-247.	9.6	12
301	Polyhydroxyalkanoates and Other Biopolymers. Biomacromolecules, 2019, 20, 3211-3212.	5.4	12
302	Crystallization and initial X-ray analysis of polyhydroxyalkanoate granule-associated protein fromAeromonas hydrophila. Acta Crystallographica Section F: Structural Biology Communications, 2006, 62, 814-819.	0.7	11
303	Hyperproduction of PHA copolymers containing high fractions of 4â€hydroxybutyrate (4HB) by outer membraneâ€defected <i>Halomonas bluephagenesis</i> grown in bioreactors. Microbial Biotechnology, 2022, 15, 1586-1597.	4.2	11
304	Chemical biotechnology in progress. Current Opinion in Biotechnology, 2011, 22, 747-748.	6.6	10
305	Production and Applications of Microbial Polyhydroxyalkanoates. , 2003, , 155-166.		10
306	Applications and Mechanism of 3â€Hydroxybutyrate (3HB) for Prevention of Colonic Inflammation and Carcinogenesis as a Food Supplement. Molecular Nutrition and Food Research, 2021, 65, e2100533.	3.3	10

#	Article	IF	Citations
307	Halophyte biorefinery for polyhydroxyalkanoates production from Ulva sp. Hydrolysate with Haloferax mediterranei in pneumatically agitated bioreactors and ultrasound harvesting. Bioresource Technology, 2022, 344, 125964.	9.6	10
308	Lysine Î²-Hydroxybutyrylation Improves Stability of COVID-19 Antibody. Biomacromolecules, 2022, 23, 454-463.	5.4	10
309	Deficiency of exopolysaccharides and O-antigen makes Halomonas bluephagenesis self-flocculating and amenable to electrotransformation. Communications Biology, 2022, 5, .	4.4	10
310	Synthesis and characterization of polyparaphenylene from <i>cis</i>â€dihydrocatechol. Journal of Applied Polymer Science, 2008, 110, 2085-2093.	2.6	9
311	Gastrointestinal Microenvironment and the Gut-Lung Axis in the Immune Responses of Severe COVID-19. Frontiers in Molecular Biosciences, 2021, 8, 647508.	3.5	9
312	Engineering Halomonas bluephagenesis via small regulatory RNAs. Metabolic Engineering, 2022, 73, 58-69.	7.0	9
313	Omics Meets Metabolic Pathway Engineering. Cell Systems, 2016, 2, 362-363.	6.2	8
314	Modelling of microbial polyhydroxyalkanoate surface binding protein PhaP for rational mutagenesis. Microbial Biotechnology, 2017, 10, 1400-1411.	4.2	8
315	Polyhydroxyalkanoates and biochar from green macroalgal Ulva sp. biomass subcritical hydrolysates: Process optimization and a priori economic and greenhouse emissions break-even analysis. Science of the Total Environment, 2021, 770, 145281.	8.0	8
316	Effective production of Poly(3-hydroxybutyrate-co-4-hydroxybutyrate) by engineered Halomonas bluephagenesis grown on glucose and 1,4-Butanediol. Bioresource Technology, 2022, 355, 127270.	9.6	8
317	Enhanced insulin production from murine islet beta cells incubated on poly(3â€hydroxybutyrateâ€<i>co</i>â€3â€hydroxyhexanoate). Journal of Biomedical Materials Research - Part A, 2010, 92A, 548-555.	4.0	7
318	Microbial production of acetoacetate by recombinant Escherichia coli. Bioresource Technology, 2010, 101, 8477-8480.	9.6	7
319	Transient embolization with microspheres of polyhydroxyalkanoate renders efficient adenoviral transduction of pancreatic capillary <i>in vivo</i>. Journal of Gene Medicine, 2012, 14, 530-539.	2.8	7
320	A strategy for enhanced circular DNA construction efficiency based on DNA cyclization after microbial transformation. Microbial Cell Factories, 2015, 14, 18.	4.0	7
321	SYNBIOCHEMâ€"a SynBio foundry for the biosynthesis and sustainable production of fine and speciality chemicals. Biochemical Society Transactions, 2016, 44, 675-677.	3.4	7
322	Study of the tensile properties of individual multicellular fibres generated by Bacillus subtilis. Scientific Reports, 2017, 7, 46052.	3.3	7
323	Production of Hydroxyalkanoate Monomers by Microbial Fermentation. Journal of Chemical Engineering of Japan, 2003, 36, 1170-1173.	0.6	6
324	Superhydrophobic Polyhydroxyalkanoates: Preparation and Applications. Biomacromolecules, 2019, 20, 618-624.	5.4	6

#	Article	IF	Citations
325	Engineering an oleic acid-induced system for Halomonas, E. coli and Pseudomonas. Metabolic Engineering, 2022, 72, 325-336.	7.0	6
326	New Growth Features of Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) Banded Spherulites. Polymer Journal, 2003, 35, 460-464.	2.7	5
327	Effects of <scp>L</scp>â€phenylalanine as a nucleation agent on the nonisothermal crystallization, melting behavior, and mechanical properties of poly(3â€hydroxybutyrateâ€<i>co</i>â€3â€hydroxyhexanoate). Journal of Applied Polymer Science, 2008, 110, 2950-2956.	2.6	5
328	Rapid Quantification of Polyhydroxyalkanoates Accumulated in Living Cells Based on Green Fluorescence Protein-Labeled Phasins: The qPHA Method. Biomacromolecules, 2022, 23, 4153-4166.	5.4	5
329	Production of Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) by Recombinant Pseudomonas stutzeri 1317 from Unrelated Carbon Sources. Chinese Journal of Chemical Engineering, 2013, 21, 1057-1061.	3.5	4
330	White Biotechnology for Biopolymers. , 2015, , 555-574.		4
331	Enhanced production of poly-3-hydroxybutyrate by recombinant Escherichia coli containing NAD kinase and phbCAB operon. Science China Chemistry, 2016, 59, 1390-1396.	8.2	4
332	Unveiling the 30â€year mystery of polyhydroxyalkanoate (PHA) synthase. Biotechnology Journal, 2017, 12, 1600659.	3.5	4
333	A Direct RNA-to-RNA Replication System for Enhanced Gene Expression in Bacteria. ACS Synthetic Biology, 2019, 8, 1067-1078.	3.8	4
334	Production of novel polyhydroxyalkanoates by Pseudomonas stutzeri 1317 from glucose and soybean oil. FEMS Microbiology Letters, 1998, 169, 45-49.	1.8	4
335	Duo Cadherinâ€Functionalized Microparticles Synergistically Induce Chondrogenesis and Cartilage Repair of Stem Cell Aggregates. Advanced Healthcare Materials, 2022, 11, e2200246.	7.6	4
336	Mechanism of reduced muscle atrophy via ketone body (D)-3-hydroxybutyrate. Cell and Bioscience, 2022, 12, .	4.8	4
337	Editorial: <i>Biotechnology Journal</i> in Asia â€“ the first official AFOB special issue. Biotechnology Journal, 2013, 8, 1246-1248.	3.5	3
338	Editorial: Transforming biotechnology with synthetic biology. Biotechnology Journal, 2016, 11, 193-194.	3.5	3
339	Organization process of the hierarchical structures in microbially synthesized polyhydroxyalkanoates. Current Applied Physics, 2007, 7, e41-e44.	2.4	2
340	Polyhydroxyalkanoate biosynthesis in Pseudomonas pseudoalcaligenes YS1. FEMS Microbiology Letters, 2002, 212, 71-75.	1.8	2
341	Biochemical engineering in China. Reviews in Chemical Engineering, 2019, 35, 929-993.	4.4	1
342	Special Issue on the International Symposium on Biological Polymers 2018. Biotechnology Journal, 2019, 14, e1900500.	3.5	1

#	Article	IF	Citations
343	Study of microbial polyhydroxyalkanoates using twoâ€dimensional Fourierâ€transform infrared correlation spectroscopy. Journal of Applied Polymer Science, 2001, 82, 934-940.	2.6	1
344	Two-dimensional Fourier transform infrared spectroscopy study of biosynthesized poly(hydroxybutyrate-co-hydroxyhexanoate) and poly(hydroxybutyrate- co-hydroxyvalerate). Journal of Polymer Science, Part B: Polymer Physics, 2002, 40, 649.	2.1	1
345	PCR cloning of polyhydroxyalkanoate biosynthesis genes from Burkholderia caryophylli and their functional expression in recombinant Escherichia coli. , 2002, 210, 49-49.		1
346	Deep Quenching: A Special Method to Study Stress-Induced Crystallization and Control the Lamellar Growth Direction. Macromolecular Rapid Communications, 2004, 25, 1549-1553.	3.9	0
347	Cytotoxicity and apoptotic effect of phytoceramide IV containing liposomes on murine mastocytoma cell P815. Tsinghua Science and Technology, 2008, 13, 447-453.	6.1	0
348	Microbial cis-3,5-Cyclohexadiene-1,2-diol, Its Polymer Poly(p-phenylene), and Applications. Microbiology Monographs, 2010, , 427-446.	0.6	0
349	Editorial: Biochemical and molecular engineering. Biotechnology Journal, 2014, 9, 587-588.	3.5	0
350	Gene Editing and Synthetic Biology. Advanced Biology, 2018, 2, 1800229.	3.0	0
351	Engineering Metabolism for the Synthesis of Polyhydroxyalkanoate Biopolymers. , 2018, , 237-252.		0
352	Next Generation Industrial Biotechnology: An Alternative To Costly Chemical Procedures. , 2018, , .		0
353	Polyhydroxyalkanoate/Polyhydroxybutyrate. , 2019, , 244-257.		0