Manfred Zinn

List of Publications by Year
in descending order

92 papers	3,750 citations	126858 33 h-index	133188 59 g-index
97 all docs	97 docs citations	97 times ranked	3872 citing authors

#	Article	IF	Citations
1	Directed Evolution of Sequence-Regulating Polyhydroxyalkanoate Synthase to Synthesize a Medium-Chain-Lengthâ€"Short-Chain-Length (MCLâ€"SCL) Block Copolymer. Biomacromolecules, 2022, 23, 1221-1231.	2.6	10
2	Versatile aliphatic polyester biosynthesis system for producing random and block copolymers composed of 2-, 3-, 4-, 5-, and 6-hydroxyalkanoates using the sequence-regulating polyhydroxyalkanoate synthase PhaCAR. Microbial Cell Factories, 2022, 21, 84.	1.9	7
3	Editorial: Recent Advances in Continuous Cultivation. Frontiers in Bioengineering and Biotechnology, 2021, 9, 641249.	2.0	2
4	Modeling of Continuous PHA Production by a Hybrid Approach Based on First Principles and Machine Learning. Processes, 2021, 9, 1560.	1.3	13
5	Strategies for Metallizing and Electroplating Biodegradable PLA. , 2021, 22, .		0
6	In silico Assessment of Pharmacological Profile of Low Molecular Weight Oligo-Hydroxyalkanoates. Frontiers in Bioengineering and Biotechnology, 2020, 8, 584010.	2.0	7
7	A microfluidic platform for in situ investigation of biofilm formation and its treatment under controlled conditions. Journal of Nanobiotechnology, 2020, 18, 166.	4.2	24
8	Novel RP-HPLC based assay for selective and sensitive endotoxin quantification. Analytical Methods, 2020, 12, 4621-4634.	1.3	6
9	Biosynthesis of Random-Homo Block Copolymer Poly[Glycolate-ran-3-Hydroxybutyrate (3HB)]-b-Poly(3HB) Using Sequence-Regulating Chimeric Polyhydroxyalkanoate Synthase in Escherichia coli. Frontiers in Bioengineering and Biotechnology, 2020, 8, 612991.	2.0	4
10	Editorial: Polymeric Nano-Biomaterials for Medical Applications: Advancements in Developing and Implementation Considering Safety-by-Design Concepts. Frontiers in Bioengineering and Biotechnology, 2020, 8, 599950.	2.0	5
11	A Methodological Safe-by-Design Approach for the Development of Nanomedicines. Frontiers in Bioengineering and Biotechnology, 2020, 8, 258.	2.0	44
12	Development of Biopolyesters (PHA) as Part of the Swiss Priority Program in Biotechnology. Chimia, 2020, 74, 398.	0.3	3
13	Poly(4-Hydroxybutyrate): Current State and Perspectives. Frontiers in Bioengineering and Biotechnology, 2020, 8, 257.	2.0	89
14	Syngas as a Sustainable Carbon Source for PHA Production. , 2020, , 377-416.		2
15	A Systematic Experimental and Computational Analysis of Commercially Available Aliphatic Polyesters. Applied Sciences (Switzerland), 2019, 9, 3397.	1.3	4
16	Tailored biosynthesis of polyhydroxyalkanoates in chemostat cultures. Methods in Enzymology, 2019, 627, 99-123.	0.4	15
17	Microplastics â€" from Anthropogenic to Natural. Chimia, 2019, 73, 841.	0.3	4
18	Materials Science at Swiss Universities of Applied Sciences. Chimia, 2019, 73, 645.	0.3	1

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19	Anaerobic Production of Poly(3-hydroxybutyrate) and Its Precursor 3-Hydroxybutyrate from Synthesis Gas by Autotrophic Clostridia. Biomacromolecules, 2019, 20, 3271-3282.	2.6	46
20	Fed-Batch Cultivations of Rhodospirillum rubrum Under Multiple Nutrient-Limited Growth Conditions on Syngas as a Novel Option to Produce Poly(3-Hydroxybutyrate) (PHB). Frontiers in Bioengineering and Biotechnology, 2019, 7, 59.	2.0	35
21	Influence of Unusual Co-substrates on the Biosynthesis of Medium-Chain-Length Polyhydroxyalkanoates Produced in Multistage Chemostat. Frontiers in Bioengineering and Biotechnology, 2019, 7, 301.	2.0	6
22	High-cell density culture of poly(lactate-co-3-hydroxybutyrate)-producing Escherichia coli by using glucose/xylose-switching fed-batch jar fermentation. Journal of Bioscience and Bioengineering, 2019, 127, 721-725.	1.1	20
23	Tailorâ€madePATplatform for safe syngas fermentations in batch, fedâ€batch and chemostat mode withRhodospirillum rubrum. Microbial Biotechnology, 2017, 10, 1365-1375.	2.0	16
24	Natural polymers. , 2017, , 31-64.		33
25	Enzymatic Biocatalysis in Chemical Transformations. , 2017, , 347-403.		21
26	The Bistable Behaviour of Pseudomonas putida KT2440 during PHA Depolymerization under Carbon Limitation. Bioengineering, 2017, 4, 58.	1.6	9
27	Continuous Processes and Flow Chemistry at the Universities of Applied Sciences in Switzerland. Chimia, 2017, 71, 525.	0.3	1
28	Robust at-line quantification of poly(3-hydroxyalkanoate) biosynthesis by flow cytometry using a BODIPY 493/503-SYTO 62 double-staining. Journal of Microbiological Methods, 2016, 131, 166-171.	0.7	22
29	In Memoriam of Prof. Bernard Witholt. Biotechnology Journal, 2016, 11, 195-196.	1.8	2
30	Production of poly(3-hydroxyalkanoate) biopolymers from syngas using Rhodospirillum rubrum: Turning waste into treasure. New Biotechnology, 2016, 33, S19.	2.4	1
31	The agar diffusion scratch assay - A novel method to assess the bioactive and cytotoxic potential of new materials and compounds. Scientific Reports, 2016, 6, 20854.	1.6	19
32	Characterization of a poly(butylene adipate-co-terephthalate)-hydrolyzing lipase from Pelosinus fermentans. Applied Microbiology and Biotechnology, 2016, 100, 1753-1764.	1.7	75
33	Pilot-scale Production of Functionalized mcl-PHA from Grape Pomace Supplemented with Fatty Acids. Chemical and Biochemical Engineering Quarterly, 2015, 29, 113-121.	0.5	60
34	PAT at the Universities of Applied Sciences. Chimia, 2015, 69, 482.	0.3	0
35	Chemical Modification of Polyhydroxyalkanoates (PHAs) for the Preparation of Hybrid Biomaterials. Chimia, 2015, 69, 627.	0.3	15
36	The chain length of biologically produced (R)-3-hydroxyalkanoic acid affects biological activity and structure of anti-cancer peptides. Journal of Biotechnology, 2015, 204, 7-12.	1.9	15

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37	Improved productivity of poly (4-hydroxybutyrate) (P4HB) in recombinant Escherichia coli using glycerol as the growth substrate with fed-batch culture. Microbial Cell Factories, 2014, 13, 131.	1.9	21
38	Fruit pomace and waste frying oil as sustainable resources for the bioproduction of medium-chain-length polyhydroxyalkanoates. International Journal of Biological Macromolecules, 2014, 71, 42-52.	3.6	104
39	New insights on the reorganization of gene transcription in Pseudomonas putida KT2440 at elevated pressure. Microbial Cell Factories, 2013, 12, 30.	1.9	39
40	The anti-cancer activity of a cationic anti-microbial peptide derived from monomers of polyhydroxyalkanoate. Biomaterials, 2013, 34, 2710-2718.	5.7	55
41	Tailored degradation of biocompatible poly(3-hydroxybutyrate-co-3-hydroxyvalerate)/calcium silicate/poly(lactide-co-glycolide) ternary composites: An in vitro study. Materials Science and Engineering C, 2013, 33, 4352-4360.	3.8	16
42	Poly(4-hydroxybutyrate) (P4HB) production in recombinant Escherichia coli: P4HB synthesis is uncoupled with cell growth. Microbial Cell Factories, 2013, 12, 123.	1.9	29
43	Biodegradable polymerâ€“lipid monolayers as templates for calcium phosphate mineralization. Journal of Materials Chemistry B, 2013, 1, 368-378.	2.9	4
44	Production of medium-chain-length polyhydroxyalkanoates by sequential feeding of xylose and octanoic acid in engineered Pseudomonas putida KT2440. BMC Biotechnology, 2012, 12, 53.	1.7	85
45	Biodegradable Bicomponent Fibers from Renewable Sources: Meltâ€Spinning of Poly(lactic acid) and Poly[(3â€hydroxybutyrate)<i>â€coâ€‹</i>(3â€hydroxyvalerate)]. Macromolecular Materials and Engineering, 2012, 297, 75-84.	1.7	84
46	Head Group Influence on Lipid Interactions With a Polyhydroxyalkanoate Biopolymer. Macromolecular Chemistry and Physics, 2012, 213, 1922-1932.	1.1	2
47	Putting cells under pressure: A simple and efficient way to enhance the productivity of mediumâ€chainâ€length polyhydroxyalkanoate in processes with <i>Pseudomonas putida</i> KT2440. Biotechnology and Bioengineering, 2012, 109, 451-461.	1.7	31
48	Pressure to kill or pressure to boost: a review on the various effects and applications of hydrostatic pressure in bacterial biotechnology. Applied Microbiology and Biotechnology, 2012, 93, 1805-1815.	1.7	38
49	Enzymatic Surface Hydrolysis of PET: Effect of Structural Diversity on Kinetic Properties of Cutinases from Thermobifida. Macromolecules, 2011, 44, 4632-4640.	2.2	298
50	Interactions of Biodegradable Poly([R]-3-hydroxy-10-undecenoate) with 1,2-Dioleoyl-<i>sn</i>-glycero-3-phosphocholine Lipid: A Monolayer Study. Langmuir, 2011, 27, 10878-10885.	1.6	17
51	Biofilm formation by the yeast<i>Rhodotorula mucilaginosa</i>: process, repeatability and cell attachment in a continuous biofilm reactor. Biofouling, 2011, 27, 979-991.	0.8	16
52	Growth and accumulation dynamics of poly(3â€hydroxyalkanoate) (PHA) in <i>Pseudomonas putida</i> GPo1 cultivated in continuous culture under transient feed conditions. Biotechnology Journal, 2011, 6, 1240-1252.	1.8	25
53	A reduction in growth rate of Pseudomonas putida KT2442 counteracts productivity advances in medium-chain-length polyhydroxyalkanoate production from gluconate. Microbial Cell Factories, 2011, 10, 25.	1.9	39
54	Application of Activated Charcoal in the Downstream Processing of Bacterial Olefinic Poly(3-hydroxyalkanoates). Chimia, 2010, 64, 784.	0.3	13

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55	Enatiomerically pure hydroxycarboxylic acids: current approaches and future perspectives. Applied Microbiology and Biotechnology, 2010, 87, 41-52.	1.7	96
56	Influence of growth stage on activities of polyhydroxyalkanoate (PHA) polymerase and PHA depolymerase in Pseudomonas putida U. BMC Microbiology, 2010, 10, 254.	1.3	25
57	Biocompatibility of polyhydroxyalkanoate as a potential material for ligament and tendon scaffold material. Journal of Biomedical Materials Research - Part A, 2010, 93A, 1391-1403.	2.1	73
58	Factors controlling bacterial attachment and biofilm formation on medium-chain-length polyhydroxyalkanoates (mcl-PHAs). Colloids and Surfaces B: Biointerfaces, 2010, 76, 104-111.	2.5	33
59	Hydrolysis of Cutin by PETâ€Hydrolases. Macromolecular Symposia, 2010, 296, 342-346.	0.4	12
60	Biosynthesis of Medium-Chain-Length Poly[(R)-3-hydroxyalkanoates]. Microbiology Monographs, 2010, , 213-236.	0.3	15
61	Simultaneous Biosynthesis of Two Copolymers in Pseudomonas putida GPo1 Using a Two-Stage Continuous Culture System. Biomacromolecules, 2010, 11, 1488-1493.	2.6	13
62	Isolation and Purification of Medium Chain Length Poly(3-hydroxyalkanoates) (mcl-PHA) for Medical Applications Using Nonchlorinated Solvents. Biomacromolecules, 2010, 11, 2716-2723.	2.6	45
63	Biofilms isolated from washing machines from three continents and their tolerance to a standard detergent. Biofouling, 2010, 26, 873-882.	0.8	59
64	Enzyme-Catalyzed Polycondensation of Polyester Macrodiols with Divinyl Adipate: A Green Method for the Preparation of Thermoplastic Block Copolyesters. Biomacromolecules, 2009, 10, 3176-3181.	2.6	28
65	Crystallization of an Aromatic Biopolyester. Macromolecules, 2009, 42, 6322-6326.	2.2	10
66	Overexpression and characterization of medium-chain-length polyhydroxyalkanoate granule bound polymerases from Pseudomonas putida GPo1. Microbial Cell Factories, 2009, 8, 60.	1.9	12
67	Simultaneous Accumulation and Degradation of Polyhydroxyalkanoates: Futile Cycle or Clever Regulation?. Biomacromolecules, 2009, 10, 916-922.	2.6	83
68	Polyhydroxyalkanoate and its potential for biomedical applications. , 2008, , 416-445.		4
69	Efficient recovery of low endotoxin medium-chain-length poly([R]-3-hydroxyalkanoate) from bacterial biomass. Journal of Microbiological Methods, 2007, 69, 206-213.	0.7	64
70	A simple in vivo bioprocess for producing enantiomerically pure R-hydroxycarboxylic acids with Pseudomonas putida GPo1. Journal of Biotechnology, 2007, 131, S97.	1.9	1
71	Efficient Production of (R)-3-Hydroxycarboxylic Acids by Biotechnological Conversion of Polyhydroxyalkanoates and Their Purification. Biomacromolecules, 2007, 8, 279-286.	2.6	74
72	Autoxidation of Medium Chain Length Polyhydroxyalkanoate. Biomacromolecules, 2007, 8, 579-584.	2.6	31

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73	Process Engineering for Production of Chiral Hydroxycarboxylic Acids from Bacterial Polyhydroxyalkanoates. Macromolecular Rapid Communications, 2007, 28, 2131-2136.	2.0	10
74	Quantitative analysis of bacterial medium-chain-length poly([R]-3-hydroxyalkanoates) by gas chromatography. Journal of Chromatography A, 2007, 1143, 199-206.	1.8	54
75	Tailor-made olefinic medium-chain-length poly[(R)-3-hydroxyalkanoates] byPseudomonas putida GPo1: Batch versus chemostat production. Biotechnology and Bioengineering, 2006, 93, 737-746.	1.7	82
76	Chemical synthesis and characterization of POSS-functionalized poly[3-hydroxyalkanoates]. Polymer, 2005, 46, 5025-5031.	1.8	38
77	Bacterial Poly(hydroxyalkanoates) as a Source of Chiral Hydroxyalkanoic Acids. Biomacromolecules, 2005, 6, 2290-2298.	2.6	97
78	Tailored Material Properties of Polyhydroxyalkanoates through Biosynthesis and Chemical Modification. Advanced Engineering Materials, 2005, 7, 408-411.	1.6	67
79	Poly(3-hydroxyalkanoate) polymerase synthesis and in vitro activity in recombinant Escherichia coli and Pseudomonas putida. Applied Microbiology and Biotechnology, 2005, 69, 286-292.	1.7	15
80	Expression of PHA polymerase genes of Pseudomonas putida in Escherichia coli and its effect on PHA formation. Antonie Van Leeuwenhoek, 2005, 87, 91-100.	0.7	18
81	Encapsulated Zosteric Acid Embedded in Poly[3-hydroxyalkanoate] Coatings?Protection against Biofouling. Polymer Bulletin, 2004, 52, 65.	1.7	19
82	Toward Non-Toxic Antifouling:Â Synthesis of Hydroxy-, Cinnamic Acid-, Sulfate-, and Zosteric Acid-Labeled Poly[3-hydroxyalkanoates]. Biomacromolecules, 2004, 5, 1452-1456.	2.6	35
83	Chemical Synthesis of Crystalline Comb Polymers from Olefinic Medium-Chain-Length Poly[3-hydroxyalkanoates]. Macromolecules, 2004, 37, 385-389.	2.2	36
84	Tailored Biosynthesis of Olefinic Medium-Chain-Length Poly[(R)-3-hydroxyalkanoates] inPseudomonasputidaGPo1 with Improved Thermal Properties. Macromolecules, 2004, 37, 6780-6785.	2.2	68
85	Dual nutrient limited growth: models, experimental observations, and applications. Journal of Biotechnology, 2004, 113, 263-279.	1.9	97
86	The concept of multiple-nutrient-limited growth of microorganisms and its application in biotechnological processes. Biotechnology Advances, 2003, 22, 35-43.	6.0	50
87	Settlement inhibition of fouling invertebrate larvae by metabolites of the marine bacterium<i>halomonas marina</i>within a polyurethane coating. Biofouling, 2001, 17, 147-153.	0.8	14
88	Accumulation of poly[(R)-3-hydroxyalkanoates] inPseudomonas oleovorans during growth in batch and chemostat culture with different carbon sources. Biotechnology and Bioengineering, 2001, 72, 278-288.	1.7	66
89	Occurrence, synthesis and medical application of bacterial polyhydroxyalkanoate. Advanced Drug Delivery Reviews, 2001, 53, 5-21.	6.6	717
90	[18] Laminar flow chamber for continuous monitoring of biofilm formation and succession. Methods in Enzymology, 1999, 310, 224-232.	0.4	21

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91	Design and Characterization of Conductive Biopolymer Nanocomposite Electrodes for Medical Applications. Materials Science Forum, 0, 879, 1921-1926.	0.3	11
92	Synthesis and characterization of star-shaped block copolymers composed of poly(3-hydroxy) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 707 Chemistry, 0, , 1-11.	1.2	2