

Manfred Zinn

List of Publications by Year in descending order

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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	Occurrence, synthesis and medical application of bacterial polyhydroxyalkanoate. <i>Advanced Drug Delivery Reviews</i> , 2001, 53, 5-21.	6.6	717
2	Enzymatic Surface Hydrolysis of PET: Effect of Structural Diversity on Kinetic Properties of Cutinases from <i>Thermobifida</i> . <i>Macromolecules</i> , 2011, 44, 4632-4640.	2.2	298
3	Fruit pomace and waste frying oil as sustainable resources for the bioproduction of medium-chain-length polyhydroxyalkanoates. <i>International Journal of Biological Macromolecules</i> , 2014, 71, 42-52.	3.6	104
4	Dual nutrient limited growth: models, experimental observations, and applications. <i>Journal of Biotechnology</i> , 2004, 113, 263-279.	1.9	97
5	Bacterial Poly(hydroxyalkanoates) as a Source of Chiral Hydroxyalkanoic Acids. <i>Biomacromolecules</i> , 2005, 6, 2290-2298.	2.6	97
6	Enantiomerically pure hydroxycarboxylic acids: current approaches and future perspectives. <i>Applied Microbiology and Biotechnology</i> , 2010, 87, 41-52.	1.7	96
7	Poly(4-Hydroxybutyrate): Current State and Perspectives. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 257.	2.0	89
8	Production of medium-chain-length polyhydroxyalkanoates by sequential feeding of xylose and octanoic acid in engineered <i>Pseudomonas putida</i> KT2440. <i>BMC Biotechnology</i> , 2012, 12, 53.	1.7	85
9	Biodegradable Bicomponent Fibers from Renewable Sources: Melt-Spinning of Poly(lactic acid) and Poly[(3-hydroxybutyrate)- <i>co</i> -(3-hydroxyvalerate)]. <i>Macromolecular Materials and Engineering</i> , 2012, 297, 75-84.	1.7	84
10	Simultaneous Accumulation and Degradation of Polyhydroxyalkanoates: Futile Cycle or Clever Regulation?. <i>Biomacromolecules</i> , 2009, 10, 916-922.	2.6	83
11	Tailor-made olefinic medium-chain-length poly[(R)-3-hydroxyalkanoates] by <i>Pseudomonas putida</i> GPo1: Batch versus chemostat production. <i>Biotechnology and Bioengineering</i> , 2006, 93, 737-746.	1.7	82
12	Characterization of a poly(butylene adipate-co-terephthalate)-hydrolyzing lipase from <i>Pelosinus fermentans</i> . <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 1753-1764.	1.7	75
13	Efficient Production of (R)-3-Hydroxycarboxylic Acids by Biotechnological Conversion of Polyhydroxyalkanoates and Their Purification. <i>Biomacromolecules</i> , 2007, 8, 279-286.	2.6	74
14	Biocompatibility of polyhydroxyalkanoate as a potential material for ligament and tendon scaffold material. <i>Journal of Biomedical Materials Research - Part A</i> , 2010, 93A, 1391-1403.	2.1	73
15	Tailored Biosynthesis of Olefinic Medium-Chain-Length Poly[(R)-3-hydroxyalkanoates] in <i>Pseudomonas putida</i> GPo1 with Improved Thermal Properties. <i>Macromolecules</i> , 2004, 37, 6780-6785.	2.2	68
16	Tailored Material Properties of Polyhydroxyalkanoates through Biosynthesis and Chemical Modification. <i>Advanced Engineering Materials</i> , 2005, 7, 408-411.	1.6	67
17	Accumulation of poly[(R)-3-hydroxyalkanoates] in <i>Pseudomonas oleovorans</i> during growth in batch and chemostat culture with different carbon sources. <i>Biotechnology and Bioengineering</i> , 2001, 72, 278-288.	1.7	66
18	Efficient recovery of low endotoxin medium-chain-length poly[(R)-3-hydroxyalkanoate) from bacterial biomass. <i>Journal of Microbiological Methods</i> , 2007, 69, 206-213.	0.7	64

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19	Pilot-scale Production of Functionalized mcl-PHA from Grape Pomace Supplemented with Fatty Acids. <i>Chemical and Biochemical Engineering Quarterly</i> , 2015, 29, 113-121.	0.5	60
20	Biofilms isolated from washing machines from three continents and their tolerance to a standard detergent. <i>Biofouling</i> , 2010, 26, 873-882.	0.8	59
21	The anti-cancer activity of a cationic anti-microbial peptide derived from monomers of polyhydroxyalkanoate. <i>Biomaterials</i> , 2013, 34, 2710-2718.	5.7	55
22	Quantitative analysis of bacterial medium-chain-length poly([R]-3-hydroxyalkanoates) by gas chromatography. <i>Journal of Chromatography A</i> , 2007, 1143, 199-206.	1.8	54
23	The concept of multiple-nutrient-limited growth of microorganisms and its application in biotechnological processes. <i>Biotechnology Advances</i> , 2003, 22, 35-43.	6.0	50
24	Anaerobic Production of Poly(3-hydroxybutyrate) and Its Precursor 3-Hydroxybutyrate from Synthesis Gas by Autotrophic Clostridia. <i>Biomacromolecules</i> , 2019, 20, 3271-3282.	2.6	46
25	Isolation and Purification of Medium Chain Length Poly(3-hydroxyalkanoates) (mcl-PHA) for Medical Applications Using Nonchlorinated Solvents. <i>Biomacromolecules</i> , 2010, 11, 2716-2723.	2.6	45
26	A Methodological Safe-by-Design Approach for the Development of Nanomedicines. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 258.	2.0	44
27	A reduction in growth rate of <i>Pseudomonas putida</i> KT2442 counteracts productivity advances in medium-chain-length polyhydroxyalkanoate production from gluconate. <i>Microbial Cell Factories</i> , 2011, 10, 25.	1.9	39
28	New insights on the reorganization of gene transcription in <i>Pseudomonas putida</i> KT2440 at elevated pressure. <i>Microbial Cell Factories</i> , 2013, 12, 30.	1.9	39
29	Chemical synthesis and characterization of POSS-functionalized poly[3-hydroxyalkanoates]. <i>Polymer</i> , 2005, 46, 5025-5031.	1.8	38
30	Pressure to kill or pressure to boost: a review on the various effects and applications of hydrostatic pressure in bacterial biotechnology. <i>Applied Microbiology and Biotechnology</i> , 2012, 93, 1805-1815.	1.7	38
31	Chemical Synthesis of Crystalline Comb Polymers from Olefinic Medium-Chain-Length Poly[3-hydroxyalkanoates]. <i>Macromolecules</i> , 2004, 37, 385-389.	2.2	36
32	Toward Non-Toxic Antifouling: Synthesis of Hydroxy-, Cinnamic Acid-, Sulfate-, and Zosteric Acid-Labeled Poly[3-hydroxyalkanoates]. <i>Biomacromolecules</i> , 2004, 5, 1452-1456.	2.6	35
33	Fed-Batch Cultivations of <i>Rhodospirillum rubrum</i> Under Multiple Nutrient-Limited Growth Conditions on Syngas as a Novel Option to Produce Poly(3-Hydroxybutyrate) (PHB). <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 59.	2.0	35
34	Factors controlling bacterial attachment and biofilm formation on medium-chain-length polyhydroxyalkanoates (mcl-PHAs). <i>Colloids and Surfaces B: Biointerfaces</i> , 2010, 76, 104-111.	2.5	33
35	Natural polymers. , 2017, , 31-64.		33
36	Autoxidation of Medium Chain Length Polyhydroxyalkanoate. <i>Biomacromolecules</i> , 2007, 8, 579-584.	2.6	31

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37	Putting cells under pressure: A simple and efficient way to enhance the productivity of medium-length polyhydroxyalkanoate in processes with <i>Pseudomonas putida</i> KT2440. <i>Biotechnology and Bioengineering</i> , 2012, 109, 451-461.	1.7	31
38	Poly(4-hydroxybutyrate) (P4HB) production in recombinant <i>Escherichia coli</i> : P4HB synthesis is uncoupled with cell growth. <i>Microbial Cell Factories</i> , 2013, 12, 123.	1.9	29
39	Enzyme-Catalyzed Polycondensation of Polyester Macrodiols with Divinyl Adipate: A Green Method for the Preparation of Thermoplastic Block Copolyesters. <i>Biomacromolecules</i> , 2009, 10, 3176-3181.	2.6	28
40	Influence of growth stage on activities of polyhydroxyalkanoate (PHA) polymerase and PHA depolymerase in <i>Pseudomonas putida</i> U. <i>BMC Microbiology</i> , 2010, 10, 254.	1.3	25
41	Growth and accumulation dynamics of poly(3-hydroxyalkanoate) (PHA) in <i>Pseudomonas putida</i> GPo1 cultivated in continuous culture under transient feed conditions. <i>Biotechnology Journal</i> , 2011, 6, 1240-1252.	1.8	25
42	A microfluidic platform for in situ investigation of biofilm formation and its treatment under controlled conditions. <i>Journal of Nanobiotechnology</i> , 2020, 18, 166.	4.2	24
43	Robust at-line quantification of poly(3-hydroxyalkanoate) biosynthesis by flow cytometry using a BODIPY 493/503-SYTO 62 double-staining. <i>Journal of Microbiological Methods</i> , 2016, 131, 166-171.	0.7	22
44	[18] Laminar flow chamber for continuous monitoring of biofilm formation and succession. <i>Methods in Enzymology</i> , 1999, 310, 224-232.	0.4	21
45	Improved productivity of poly(4-hydroxybutyrate) (P4HB) in recombinant <i>Escherichia coli</i> using glycerol as the growth substrate with fed-batch culture. <i>Microbial Cell Factories</i> , 2014, 13, 131.	1.9	21
46	Enzymatic Biocatalysis in Chemical Transformations. , 2017, , 347-403.		21
47	High-cell density culture of poly(lactate-co-3-hydroxybutyrate)-producing <i>Escherichia coli</i> by using glucose/xylose-switching fed-batch jar fermentation. <i>Journal of Bioscience and Bioengineering</i> , 2019, 127, 721-725.	1.1	20
48	Encapsulated Zosteric Acid Embedded in Poly[3-hydroxyalkanoate] Coatings? Protection against Biofouling. <i>Polymer Bulletin</i> , 2004, 52, 65.	1.7	19
49	The agar diffusion scratch assay - A novel method to assess the bioactive and cytotoxic potential of new materials and compounds. <i>Scientific Reports</i> , 2016, 6, 20854.	1.6	19
50	Expression of PHA polymerase genes of <i>Pseudomonas putida</i> in <i>Escherichia coli</i> and its effect on PHA formation. <i>Antonie Van Leeuwenhoek</i> , 2005, 87, 91-100.	0.7	18
51	Interactions of Biodegradable Poly([R]-3-hydroxy-10-undecenoate) with 1,2-Dioleoyl-sn-glycero-3-phosphocholine Lipid: A Monolayer Study. <i>Langmuir</i> , 2011, 27, 10878-10885.	1.6	17
52	Biofilm formation by the yeast <i>Rhodotorula mucilaginosa</i> : process, repeatability and cell attachment in a continuous biofilm reactor. <i>Biofouling</i> , 2011, 27, 979-991.	0.8	16
53	Tailored degradation of biocompatible poly(3-hydroxybutyrate-co-3-hydroxyvalerate)/calcium silicate/poly(lactide-co-glycolide) ternary composites: An in vitro study. <i>Materials Science and Engineering C</i> , 2013, 33, 4352-4360.	3.8	16
54	Tailor-made PAT platform for safe syngas fermentations in batch, fed-batch and chemostat mode with <i>Rhodospirillum rubrum</i> . <i>Microbial Biotechnology</i> , 2017, 10, 1365-1375.	2.0	16

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55	Poly(3-hydroxyalkanoate) polymerase synthesis and in vitro activity in recombinant <i>Escherichia coli</i> and <i>Pseudomonas putida</i> . <i>Applied Microbiology and Biotechnology</i> , 2005, 69, 286-292.	1.7	15
56	Biosynthesis of Medium-Chain-Length Poly[(R)-3-hydroxyalkanoates]. <i>Microbiology Monographs</i> , 2010, , 213-236.	0.3	15
57	Chemical Modification of Polyhydroxyalkanoates (PHAs) for the Preparation of Hybrid Biomaterials. <i>Chimia</i> , 2015, 69, 627.	0.3	15
58	The chain length of biologically produced (R)-3-hydroxyalkanoic acid affects biological activity and structure of anti-cancer peptides. <i>Journal of Biotechnology</i> , 2015, 204, 7-12.	1.9	15
59	Tailored biosynthesis of polyhydroxyalkanoates in chemostat cultures. <i>Methods in Enzymology</i> , 2019, 627, 99-123.	0.4	15
60	Settlement inhibition of fouling invertebrate larvae by metabolites of the marine bacterium <i>Halomonas marina</i> within a polyurethane coating. <i>Biofouling</i> , 2001, 17, 147-153.	0.8	14
61	Application of Activated Charcoal in the Downstream Processing of Bacterial Olefinic Poly(3-hydroxyalkanoates). <i>Chimia</i> , 2010, 64, 784.	0.3	13
62	Simultaneous Biosynthesis of Two Copolymers in <i>Pseudomonas putida</i> GPo1 Using a Two-Stage Continuous Culture System. <i>Biomacromolecules</i> , 2010, 11, 1488-1493.	2.6	13
63	Modeling of Continuous PHA Production by a Hybrid Approach Based on First Principles and Machine Learning. <i>Processes</i> , 2021, 9, 1560.	1.3	13
64	Overexpression and characterization of medium-chain-length polyhydroxyalkanoate granule bound polymerases from <i>Pseudomonas putida</i> GPo1. <i>Microbial Cell Factories</i> , 2009, 8, 60.	1.9	12
65	Hydrolysis of Cutin by PET-Hydrolases. <i>Macromolecular Symposia</i> , 2010, 296, 342-346.	0.4	12
66	Design and Characterization of Conductive Biopolymer Nanocomposite Electrodes for Medical Applications. <i>Materials Science Forum</i> , 0, 879, 1921-1926.	0.3	11
67	Process Engineering for Production of Chiral Hydroxycarboxylic Acids from Bacterial Polyhydroxyalkanoates. <i>Macromolecular Rapid Communications</i> , 2007, 28, 2131-2136.	2.0	10
68	Crystallization of an Aromatic Biopolyester. <i>Macromolecules</i> , 2009, 42, 6322-6326.	2.2	10
69	Directed Evolution of Sequence-Regulating Polyhydroxyalkanoate Synthase to Synthesize a Medium-Chain-Length-Short-Chain-Length (MCL-SCL) Block Copolymer. <i>Biomacromolecules</i> , 2022, 23, 1221-1231.	2.6	10
70	The Bistable Behaviour of <i>Pseudomonas putida</i> KT2440 during PHA Depolymerization under Carbon Limitation. <i>Bioengineering</i> , 2017, 4, 58.	1.6	9
71	In silico Assessment of Pharmacological Profile of Low Molecular Weight Oligo-Hydroxyalkanoates. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 584010.	2.0	7
72	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. <i>Microbial Cell Factories</i> , 2022, 21, 84.	1.9	7

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73	Influence of Unusual Co-substrates on the Biosynthesis of Medium-Chain-Length Polyhydroxyalkanoates Produced in Multistage Chemostat. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 301.	2.0	6
74	Novel RP-HPLC based assay for selective and sensitive endotoxin quantification. <i>Analytical Methods</i> , 2020, 12, 4621-4634.	1.3	6
75	Editorial: Polymeric Nano-Biomaterials for Medical Applications: Advancements in Developing and Implementation Considering Safety-by-Design Concepts. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 599950.	2.0	5
76	Polyhydroxyalkanoate and its potential for biomedical applications. , 2008, , 416-445.		4
77	Biodegradable polymer-lipid monolayers as templates for calcium phosphate mineralization. <i>Journal of Materials Chemistry B</i> , 2013, 1, 368-378.	2.9	4
78	A Systematic Experimental and Computational Analysis of Commercially Available Aliphatic Polyesters. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3397.	1.3	4
79	Microplastics – from Anthropogenic to Natural. <i>Chimia</i> , 2019, 73, 841.	0.3	4
80	Biosynthesis of Random-Homo Block Copolymer Poly[Glycolate-ran-3-Hydroxybutyrate (3HB)]-b-Poly(3HB) Using Sequence-Regulating Chimeric Polyhydroxyalkanoate Synthase in <i>Escherichia coli</i> . <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 612991.	2.0	4
81	Development of Biopolyesters (PHA) as Part of the Swiss Priority Program in Biotechnology. <i>Chimia</i> , 2020, 74, 398.	0.3	3
82	Head Group Influence on Lipid Interactions With a Polyhydroxyalkanoate Biopolymer. <i>Macromolecular Chemistry and Physics</i> , 2012, 213, 1922-1932.	1.1	2
83	In Memoriam of Prof. Bernard Witholt. <i>Biotechnology Journal</i> , 2016, 11, 195-196.	1.8	2
84	Editorial: Recent Advances in Continuous Cultivation. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 641249.	2.0	2
85	Syngas as a Sustainable Carbon Source for PHA Production. , 2020, , 377-416.		2
86	Synthesis and characterization of star-shaped block copolymers composed of poly(3-hydroxy) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 227 <i>Chemistry</i> , 0, , 1-11.	1.2	2
87	A simple in vivo bioprocess for producing enantiomerically pure R-hydroxycarboxylic acids with <i>Pseudomonas putida</i> GPo1. <i>Journal of Biotechnology</i> , 2007, 131, S97.	1.9	1
88	Production of poly(3-hydroxyalkanoate) biopolymers from syngas using <i>Rhodospirillum rubrum</i> : Turning waste into treasure. <i>New Biotechnology</i> , 2016, 33, S19.	2.4	1
89	Continuous Processes and Flow Chemistry at the Universities of Applied Sciences in Switzerland. <i>Chimia</i> , 2017, 71, 525.	0.3	1
90	Materials Science at Swiss Universities of Applied Sciences. <i>Chimia</i> , 2019, 73, 645.	0.3	1

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91	PAT at the Universities of Applied Sciences. <i>Chimia</i> , 2015, 69, 482.	0.3	0
92	Strategies for Metallizing and Electroplating Biodegradable PLA. , 2021, 22, .		0