Dieter Jendrossek

List of Publications by Year
in descending order

105 papers	5,603 citations	53751 45 h-index	85498 71 g-index
105 all docs	105 docs citations	105 times ranked	3362 citing authors

#	Article	IF	Citations
1	Microbial Degradation of Polyhydroxyalkanoates. Annual Review of Microbiology, 2002, 56, 403-432.	2.9	572
2	Polyhydroxyalkanoate Granules Are Complex Subcellular Organelles (Carbonosomes). Journal of Bacteriology, 2009, 191, 3195-3202.	1.0	260
3	New insights in the formation of polyhydroxyalkanoate granules (carbonosomes) and novel functions of poly(3â€hydroxybutyrate). Environmental Microbiology, 2014, 16, 2357-2373.	1.8	197
4	Degradation of poly(3-hydroxybutyrate), PHB, by bacteria and purification of a novel PHB depolymerase fromComamonas sp.. Journal of Polymers and the Environment, 1993, 1, 53-63.	0.8	166
5	Bacterial Degradation of Natural and Synthetic Rubber. Biomacromolecules, 2001, 2, 295-303.	2.6	149
6	Awakening of a Dormant Cyanobacterium from Nitrogen Chlorosis Reveals a Genetically Determined Program. Current Biology, 2016, 26, 2862-2872.	1.8	149
7	A New Type of Thermoalkalophilic Hydrolase of Paucimonas lemoignei with High Specificity for Amorphous Polyesters of Short Chain-length Hydroxyalkanoic Acids. Journal of Biological Chemistry, 2001, 276, 36215-36224.	1.6	121
8	Mobilization of Poly(3-Hydroxybutyrate) inRalstonia eutropha. Journal of Bacteriology, 2000, 182, 5916-5918.	1.0	119
9	Squalene-Hopene Cyclases. Applied and Environmental Microbiology, 2011, 77, 3905-3915.	1.4	118
10	Enzymatic Degradation of Bacterial Poly(3-hydroxybutyrate) by a Depolymerase from Pseudomonas lemoignei. Macromolecules, 1996, 29, 507-513.	2.2	113
11	Isolated Poly(3-Hydroxybutyrate) (PHB) Granules Are Complex Bacterial Organelles Catalyzing Formation of PHB from Acetyl Coenzyme A (CoA) and Degradation of PHB to Acetyl-CoA. Journal of Bacteriology, 2007, 189, 8250-8256.	1.0	107
12	Cloning and characterization of the poly(hydroxyalkanoic acid)-depolymerase gene locus, phaZ1, of Pseudomonas lemoignei and its gene product. FEBS Journal, 1993, 218, 701-710.	0.2	84
13	Microbial degradation of polyesters: a review on extracellular poly(hydroxyalkanoic acid) depolymerases. Polymer Degradation and Stability, 1998, 59, 317-325.	2.7	82
14	Studies on the biodegradability of polythioester copolymers and homopolymers by polyhydroxyalkanoate (PHA)-degrading bacteria and PHA depolymerases. Archives of Microbiology, 2004, 182, 212-25.	1.0	81
15	Poly(3-Hydroxybutyrate) Granules at the Early Stages of Formation Are Localized Close to the Cytoplasmic Membrane in Caryophanon latum. Applied and Environmental Microbiology, 2007, 73, 586-593.	1.4	81
16	Identification of a multifunctional protein, PhaM, that determines number, surface to volume ratio, subcellular localization and distribution to daughter cells of poly(3-hydroxybutyrate), PHB, granules in Ralstonia eutropha H16. Molecular Microbiology, 2011, 82, 936-951.	1.2	81
17	Polyhydroxyalkanoate (PHA) Granules Have no Phospholipids. Scientific Reports, 2016, 6, 26612.	1.6	81
18	Degradation of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) by aerobic sewage sludge. FEMS Microbiology Letters, 1994, 117, 107-111.	0.7	78

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19	Physiological and Chemical Investigations into Microbial Degradation of Synthetic Poly(cis) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	1.4	78
20	Taxonomic identification ofStreptomyces exfoliatusK10 and characterization of its poly(3-hydroxybutyrate) depolymerase gene. FEMS Microbiology Letters, 1996, 142, 215-221.	0.7	77
21	Unraveling the Function of the Rhodospirillum rubrum Activator of Polyhydroxybutyrate (PHB) Degradation: the Activator Is a PHB-Granule-Bound Protein (Phasin). Journal of Bacteriology, 2004, 186, 2466-2475.	1.0	77
22	Localization of Poly(3-Hydroxybutyrate) (PHB) Granule-Associated Proteins during PHB Granule Formation and Identification of Two New Phasins, PhaP6 and PhaP7, in Ralstonia eutropha H16. Journal of Bacteriology, 2012, 194, 5909-5921.	1.0	77
23	Novel Type of Heme-Dependent Oxygenase Catalyzes Oxidative Cleavage of Rubber (Poly- cis) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	1.4	74
24	Purification and properties of poly(3-hydroxyvaleric acid) depolymerase from Pseudomonas lemoignei. Applied Microbiology and Biotechnology, 1993, 38, 487.	1.7	72
25	Heme-Dependent Rubber Oxygenase RoxA of Xanthomonas sp. Cleaves the Carbon Backbone of Poly(cis) Tj ETQq1 1 0.784314 rgBT /O	1.4	69
26	PHB granules are attached to the nucleoid via PhaM in Ralstonia eutropha. BMC Microbiology, 2012, 12, 262.	1.3	67
27	Response surface method for polyhydroxybutyrate (PHB) bioplastic accumulation in Bacillus drentensis BP17 using pineapple peel. PLoS ONE, 2020, 15, e0230443.	1.1	67
28	The â€œIntracellularâ€• Poly(3-Hydroxybutyrate) (PHB) Depolymerase of Rhodospirillum rubrum Is a Periplasm-Located Protein with Specificity for Native PHB and with Structural Similarity to Extracellular PHB Depolymerases. Journal of Bacteriology, 2004, 186, 7243-7253.	1.0	66
29	Peculiarities of PHA granules preparation and PHA depolymerase activity determination. Applied Microbiology and Biotechnology, 2007, 74, 1186-1196.	1.7	66
30	The Presumptive Magnetosome Protein Mms16 Is a Poly(3-Hydroxybutyrate) Granule-Bound Protein (Phasin) in Magnetospirillum gryphiswaldense. Journal of Bacteriology, 2005, 187, 2416-2425.	1.0	64
31	Identification of Genes and Proteins Necessary for Catabolism of Acyclic Terpenes and Leucine/Isovalerate in Pseudomonas aeruginosa. Applied and Environmental Microbiology, 2006, 72, 4819-4828.	1.4	62
32	Interaction between poly(3-hydroxybutyrate) granule-associated proteins as revealed by two-hybrid analysis and identification of a new phasin in Ralstonia eutropha H16. Microbiology (United Kingdom), 2011, 157, 2795-2807.	0.7	61
33	Poly(3-hydroxybutyrate) depolymerases bind to their substrate by a C-terminal located substrate binding site. FEMS Microbiology Letters, 1996, 143, 191-194.	0.7	59
34	Assay of Poly(3-Hydroxybutyrate) Depolymerase Activity and Product Determination. Applied and Environmental Microbiology, 2006, 72, 6094-6100.	1.4	58
35	Substrate specificities of poly(hydroxyalkanoate)-degrading bacteria and active site studies on the extracellular poly(3-hydroxyoctanoic acid) depolymerase of Pseudomonas fluorescens GK13. Canadian Journal of Microbiology, 1995, 41, 170-179.	0.8	56
36	Sequence analysis of a gene product synthesized byXanthomonassp. during growth on natural rubber latex. FEMS Microbiology Letters, 2003, 224, 61-65.	0.7	54

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37	PhaM Is the Physiological Activator of Poly(3-Hydroxybutyrate) (PHB) Synthase (PhaC1) in Ralstonia eutropha. Applied and Environmental Microbiology, 2014, 80, 555-563.	1.4	54
38	Poly(3-Hydroxybutyrate) (PHB) Depolymerase PhaZa1 Is Involved in Mobilization of Accumulated PHB in Ralstonia eutropha H16. Applied and Environmental Microbiology, 2008, 74, 1058-1063.	1.4	53
39	Methylcrotonyl-CoA and geranyl-CoA carboxylases are involved in leucine/isovalerate utilization (Liu) and acyclic terpene utilization (Atu), and are encoded by liuB/liuD and atuC/atuF, in Pseudomonas aeruginosa. Microbiology (United Kingdom), 2005, 151, 3649-3656.	0.7	50
40	The protective role of PHB and its degradation products against stress situations in bacteria. FEMS Microbiology Reviews, 2021, 45, .	3.9	50
41	Fluorescence Microscopical Investigation of Poly(3-hydroxybutyrate) Granule Formation in Bacteriaâ€. Biomacromolecules, 2005, 6, 598-603.	2.6	48
42	Polyester Modification of the Mammalian TRPM8 Channel Protein: Implications for Structure and Function. Cell Reports, 2013, 4, 302-315.	2.9	48
43	Comparative Proteome Analysis Reveals Four Novel Polyhydroxybutyrate (PHB) Granule-Associated Proteins in Ralstonia eutropha H16. Applied and Environmental Microbiology, 2015, 81, 1847-1858.	1.4	48
44	Biochemical and spectroscopic characterization of purified Latex Clearing Protein (Lcp) from newly isolated rubber degrading Rhodococcus rhodochrous strain RPK1 reveals novel properties of Lcp. BMC Microbiology, 2016, 16, 92.	1.3	48
45	Poly(3-Hydroxyvalerate) Depolymerase of Pseudomonas lemoignei. Applied and Environmental Microbiology, 2000, 66, 1385-1392.	1.4	47
46	Thermotolerant poly(3-hydroxybutyrate)-degrading bacteria from hot compost and characterization of the PHB depolymerase of Schlegelella sp. KB1a. Archives of Microbiology, 2004, 182, 157-64.	1.0	47
47	Determination of Polyhydroxybutyrate (PHB) Content in Ralstonia eutropha Using Gas Chromatography and Nile Red Staining. Bio-protocol, 2018, 8, e2748.	0.2	47
48	Rubber Oxygenase and Latex Clearing Protein Cleave Rubber to Different Products and Use Different Cleavage Mechanisms. Applied and Environmental Microbiology, 2014, 80, 5012-5020.	1.4	46
49	Latex Clearing Protein (Lcp) of Streptomyces sp. Strain K30 Is a <i>b</i> -Type Cytochrome and Differs from Rubber Oxygenase A (RoxA) in Its Biophysical Properties. Applied and Environmental Microbiology, 2015, 81, 3793-3799.	1.4	45
50	Activation-Independent Cyclization of Monoterpenoids. Applied and Environmental Microbiology, 2012, 78, 1055-1062.	1.4	43
51	Structure of the processive rubber oxygenase RoxA from <i>Xanthomonas</i> sp. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13833-13838.	3.3	41
52	Structural Basis of Poly(3-Hydroxybutyrate) Hydrolysis by PhaZ7 Depolymerase from Paucimonas lemoignei. Journal of Molecular Biology, 2008, 382, 1184-1194.	2.0	39
53	Rubber oxygenases. Applied Microbiology and Biotechnology, 2019, 103, 125-142.	1.7	38
54	Spectroscopic properties of rubber oxygenase RoxA from Xanthomonas sp., a new type of dihaem dioxygenase. Microbiology (United Kingdom), 2010, 156, 2537-2548.	0.7	35

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55	RoxB Is a Novel Type of Rubber Oxygenase That Combines Properties of Rubber Oxygenase RoxA and Latex Clearing Protein (Lcp). Applied and Environmental Microbiology, 2017, 83, .	1.4	35
56	Functional Identification of Rubber Oxygenase (RoxA) in Soil and Marine Myxobacteria. Applied and Environmental Microbiology, 2013, 79, 6391-6399.	1.4	34
57	Three different proteins exhibiting NAD-dependent acetaldehyde dehydrogenase activity from Alcaligenes eutrophus. FEBS Journal, 1987, 167, 541-548.	0.2	33
58	Identification and characterisation of the catalytic triad of the alkaliphilic thermotolerant PHA depolymerase PhaZ7 ofPaucimonas lemoignei. FEMS Microbiology Letters, 2003, 224, 107-112.	0.7	33
59	Absence of ppGpp Leads to Increased Mobilization of Intermediately Accumulated Poly(3-Hydroxybutyrate) in Ralstonia eutropha H16. Applied and Environmental Microbiology, 2017, 83, .	1.4	33
60	Catabolism of citronellol and related acyclic terpenoids in pseudomonads. Applied Microbiology and Biotechnology, 2010, 87, 859-869.	1.7	32
61	Cleavage of Rubber by the Latex Clearing Protein (Lcp) of Streptomyces sp. Strain K30: Molecular Insights. Applied and Environmental Microbiology, 2016, 82, 6593-6602.	1.4	32
62	The activator of theRhodospirillum rubrumPHB depolymerase is a polypeptide that is extremely resistant to high temperature (121Ã‚Â°C) and other physical or chemical stresses. FEMS Microbiology Letters, 2004, 230, 265-274.	0.7	29
63	Structural and Functional Analysis of Latex Clearing Protein (Lcp) Provides Insight into the Enzymatic Cleavage of Rubber. Scientific Reports, 2017, 7, 6179.	1.6	29
64	Substrate specificity of a novel squalene-hopene cyclase from Zymomonas mobilis. Journal of Molecular Catalysis B: Enzymatic, 2012, 84, 72-77.	1.8	28
65	Utilization of geraniol is dependent on molybdenum in Pseudomonas aeruginosa: evidence for different metabolic routes for oxidation of geraniol and citronellol. Microbiology (United Kingdom), 2005, 151, 2277-2283.	0.7	26
66	Identification and characterization of the acyclic terpene utilization gene cluster ofPseudomonas citronellolis. FEMS Microbiology Letters, 2006, 264, 220-225.	0.7	26
67	Metabolic and taxonomic insights into the Gram-negative natural rubber degrading bacterium Steroidobacter cummioxidans sp. nov., strain 35Y. PLoS ONE, 2018, 13, e0197448.	1.1	26
68	Phe317 Is Essential for Rubber Oxygenase RoxA Activity. Applied and Environmental Microbiology, 2012, 78, 7876-7883.	1.4	25
69	Biochemical analysis and structure determination of <i><scp>P</scp>aucimonas lemoignei</i> poly(3â€hydroxybutyrate) (<scp>PHB</scp>) depolymerase <scp>PhaZ</scp>7 muteins reveal the <scp>PHB</scp> binding site and details of substrateâ€"enzyme interactions. Molecular Microbiology, 2013, 90, 649-664.	1.2	24
70	Formation of Polyphosphate by Polyphosphate Kinases and Its Relationship to Poly(3-Hydroxybutyrate) Accumulation in Ralstonia eutropha Strain H16. Applied and Environmental Microbiology, 2015, 81, 8277-8293.	1.4	24
71	Proteins with CHADs (Conserved Histidine Î±-Helical Domains) Are Attached to Polyphosphate Granules <i>In Vivo</i> and Constitute a Novel Family of Polyphosphate-Associated Proteins (Phosins). Applied and Environmental Microbiology, 2017, 83, .	1.4	24
72	Prokaryotic squalene-hopene cyclases can be converted to citronellal cyclases by single amino acid exchange. Applied Microbiology and Biotechnology, 2013, 97, 1571-1580.	1.7	23

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73	Biochemical characterization of isovaleryl-CoA dehydrogenase (LiuA) of<i>Pseudomonas aeruginosa</i>and the importance of<i>liu</i>genes for a functional catabolic pathway of methyl-branched compounds. FEMS Microbiology Letters, 2008, 286, 78-84.	0.7	22
74	Production of functionalized oligoâ€isoprenoids by enzymatic cleavage of rubber. Microbial Biotechnology, 2017, 10, 1426-1433.	2.0	22
75	Microscopical investigation of poly(3-hydroxybutyrate) granule formation inAzotobacter vinelandii. FEMS Microbiology Letters, 2007, 266, 60-64.	0.7	21
76	Biochemical characterization of AtuD from Pseudomonas aeruginosa, the first member of a new subgroup of acyl-CoA dehydrogenases with specificity for citronellyl-CoA. Microbiology (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6	0.7	21
77	Rhizobacter gummiphilus NS21 has two rubber oxygenases (RoxA and RoxB) acting synergistically in rubber utilisation. Applied Microbiology and Biotechnology, 2018, 102, 10245-10257.	1.7	21
78	To Be or Not To Be a Poly(3-Hydroxybutyrate) (PHB) Depolymerase: PhaZd1 (PhaZ6) and PhaZd2 (PhaZ7) of Ralstonia eutropha, Highly Active PHB Depolymerases with No Detectable Role in Mobilization of Accumulated PHB. Applied and Environmental Microbiology, 2014, 80, 4936-4946.	1.4	20
79	Production of PHA depolymerase A (PhaZ5) fromPaucimonas lemoigneiinBacillus subtilis. FEMS Microbiology Letters, 2002, 209, 237-241.	0.7	19
80	Inactivation of an intracellular poly-3-hydroxybutyrate depolymerase of Azotobacter vinelandii allows to obtain a polymer of uniform high molecular mass. Applied Microbiology and Biotechnology, 2018, 102, 2693-2707.	1.7	19
81	PQQâ€Dependent Alcohol Dehydrogenase (QEDH) of <i>Pseudomonas aeruginosa</i> is involved in catabolism of acyclic terpenes. Journal of Basic Microbiology, 2010, 50, 119-124.	1.8	17
82	AtuR is a repressor of acyclic terpene utilization (Atu) gene cluster expression and specifically binds to two 13â€ƒbp inverted repeat sequences of â€ƒthe atuA-atuRâ€ƒintergenic region. FEMS Microbiology Letters, 2010, 308, no-no.	0.7	16
83	Biochemical characterization of a new type of intracellular PHB depolymerase from Rhodospirillum rubrum with high hydrolytic activity on native PHB granules. Applied Microbiology and Biotechnology, 2011, 89, 1487-1495.	1.7	16
84	Malate:quinone oxidoreductase (MqoB) is required for growth on acetate and linear terpenes inPseudomonas citronellolis. FEMS Microbiology Letters, 2005, 246, 25-31.	0.7	15
85	Low temperature-induced viable but not culturable state of<i>Ralstonia eutropha</i>and its relationship to accumulated polyhydroxybutyrate. FEMS Microbiology Letters, 2016, 363, fnw249.	0.7	14
86	New Insights into PhaM-PhaC-Mediated Localization of Polyhydroxybutyrate Granules in Ralstonia eutropha H16. Applied and Environmental Microbiology, 2017, 83, .	1.4	14
87	Acidocalcisomes and Polyphosphate Granules Are Different Subcellular Structures in Agrobacterium tumefaciens. Applied and Environmental Microbiology, 2020, 86, .	1.4	14
88	The structure of PhaZ7 at atomic (1.2â€…Ã…) resolution reveals details of the active site and suggests a substrate-binding mode. Acta Crystallographica Section F: Structural Biology Communications, 2010, 66, 648-654.	0.7	13
89	Poly(3-Hydroxybutyrate) (PHB) Polymerase PhaC1 and PHB Depolymerase PhaZa1 of Ralstonia eutropha Are Phosphorylated <i>In Vivo</i>. Applied and Environmental Microbiology, 2018, 84, .	1.4	13
90	Production of medium-chain-length hydroxyalkanoic acids from Pseudomonas putida in pH stat. Applied Microbiology and Biotechnology, 2007, 75, 1047-1053.	1.7	12

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91	Formation of an Organicâ€“Inorganic Biopolymer: Polyhydroxybutyrateâ€“Polyphosphate. Biomacromolecules, 2019, 20, 3253-3260.	2.6	11
92	Assays for the Detection of Rubber Oxygenase Activities. Bio-protocol, 2017, 7, e2188.	0.2	11
93	Characterization of Agrobacterium tumefaciens PPKs reveals the formation of oligophosphorylated products up to nucleoside nona-phosphates. Applied Microbiology and Biotechnology, 2020, 104, 9683-9692.	1.7	10
94	A universal polyphosphate kinase: PPK2c of Ralstonia eutropha accepts purine and pyrimidine nucleotides including uridine diphosphate. Applied Microbiology and Biotechnology, 2020, 104, 6659-6667.	1.7	10
95	Tyrosine 105 of Paucimonas lemoignei PHB depolymerase PhaZ7 is essential for polymer binding. Polymer Degradation and Stability, 2010, 95, 1429-1435.	2.7	9
96	Development of a Transferable Bimolecular Fluorescence Complementation System for the Investigation of Interactions between Poly(3-Hydroxybutyrate) Granule-Associated Proteins in Gram-Negative Bacteria. Applied and Environmental Microbiology, 2013, 79, 2989-2999.	1.4	9
97	The Multiple Roles of Polyphosphate in <i>Ralstonia eutropha</i> and Other Bacteria. Microbial Physiology, 2021, 31, 163-177.	1.1	9
98	The Pseudomonas aeruginosa Isohexenyl Glutaconyl Coenzyme A Hydratase (AtuE) Is Upregulated in Citronellate-Grown Cells and Belongs to the Crotonase Family. Applied and Environmental Microbiology, 2015, 81, 6558-6566.	1.4	8
99	Crystal structure analysis, covalent docking, and molecular dynamics calculations reveal a conformational switch in PhaZ7 PHB depolymerase. Proteins: Structure, Function and Bioinformatics, 2017, 85, 1351-1361.	1.5	7
100	Crystallization and preliminary X-ray analysis of a novel thermoalkalophilic poly(3-hydroxybutyrate) depolymerase (PhaZ7) fromPaucimonas lemoignei. Acta Crystallographica Section F: Structural Biology Communications, 2005, 61, 479-481.	0.7	6
101	Solimonas fluminis has an active latex-clearing protein. Applied Microbiology and Biotechnology, 2019, 103, 8229-8239.	1.7	6
102	Carbonosomes. Microbiology Monographs, 2020, , 243-275.	0.3	4
103	Towards the understanding of the enzymatic cleavage of polyisoprene by the dihaem-dioxygenase RoxA. AMB Express, 2019, 9, 166.	1.4	3
104	Migration of Polyphosphate Granules in <i>Agrobacterium tumefaciens</i>. Microbial Physiology, 2022, 32, 71-82.	1.1	3
105	Polyphosphate Granules and Acidocalcisomes. Microbiology Monographs, 2020, , 1-17.	0.3	2