

# Dieter Jendrossek

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8804152/publications.pdf>

Version: 2024-02-01

105  
papers

5,603  
citations

53794

45  
h-index

85541

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.	7.3	572
2	Polyhydroxyalkanoate Granules Are Complex Subcellular Organelles (Carbonosomes). Journal of Bacteriology, 2009, 191, 3195-3202.	2.2	260
3	New insights in the formation of polyhydroxyalkanoate granules (carbonosomes) and novel functions of poly(3-hydroxybutyrate). Environmental Microbiology, 2014, 16, 2357-2373.	3.8	197
4	Degradation of poly(3-hydroxybutyrate), PHB, by bacteria and purification of a novel PHB depolymerase from Comamonas sp.. Journal of Polymers and the Environment, 1993, 1, 53-63.	0.6	166
5	Bacterial Degradation of Natural and Synthetic Rubber. Biomacromolecules, 2001, 2, 295-303.	5.4	149
6	Awakening of a Dormant Cyanobacterium from Nitrogen Chlorosis Reveals a Genetically Determined Program. Current Biology, 2016, 26, 2862-2872.	3.9	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.	3.4	121
8	Mobilization of Poly(3-Hydroxybutyrate) in <i>Ralstonia eutropha</i> . Journal of Bacteriology, 2000, 182, 5916-5918.	2.2	119
9	Squalene-Hopene Cyclases. Applied and Environmental Microbiology, 2011, 77, 3905-3915.	3.1	118
10	Enzymatic Degradation of Bacterial Poly(3-hydroxybutyrate) by a Depolymerase from Pseudomonas lemoignei. Macromolecules, 1996, 29, 507-513.	4.8	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.	2.2	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.	5.8	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.	2.2	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.	3.1	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.	2.5	81
17	Polyhydroxyalkanoate (PHA) Granules Have no Phospholipids. Scientific Reports, 2016, 6, 26612.	3.3	81
18	Degradation of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) by aerobic sewage sludge. FEMS Microbiology Letters, 1994, 117, 107-111.	1.8	78

#	ARTICLE	IF	CITATIONS
19	Physiological and Chemical Investigations into Microbial Degradation of Synthetic Poly( cis) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	3.1	78
20	Taxonomic identification of <i>Streptomyces exfoliatus</i> K10 and characterization of its poly(3-hydroxybutyrate) depolymerase gene. FEMS Microbiology Letters, 1996, 142, 215-221.	1.8	77
21	Unraveling the Function of the <i>Rhodospirillum rubrum</i> Activator of Polyhydroxybutyrate (PHB) Degradation: the Activator Is a PHB-Granule-Bound Protein (Phasin). Journal of Bacteriology, 2004, 186, 2466-2475.	2.2	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 <i>Ralstonia eutropha</i> H16. Journal of Bacteriology, 2012, 194, 5909-5921.	2.2	77
23	Novel Type of Heme-Dependent Oxygenase Catalyzes Oxidative Cleavage of Rubber (Poly- cis) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	3.1	74
24	Purification and properties of poly(3-hydroxyvaleric acid) depolymerase from <i>Pseudomonas lemoignei</i> . Applied Microbiology and Biotechnology, 1993, 38, 487.	3.6	72
25	Heme-Dependent Rubber Oxygenase RoxA of <i>Xanthomonas</i> sp. Cleaves the Carbon Backbone of Poly( cis) Tj ETQq1 1 0.784314 rgBT /O	3.1	69
26	PHB granules are attached to the nucleoid via PhaM in <i>Ralstonia eutropha</i> . BMC Microbiology, 2012, 12, 262.	3.3	67
27	Response surface method for polyhydroxybutyrate (PHB) bioplastic accumulation in <i>Bacillus drentensis</i> BP17 using pineapple peel. PLoS ONE, 2020, 15, e0230443.	2.5	67
28	The Intracellular Poly(3-Hydroxybutyrate) (PHB) Depolymerase of <i>Rhodospirillum rubrum</i> 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.	2.2	66
29	Peculiarities of PHA granules preparation and PHA depolymerase activity determination. Applied Microbiology and Biotechnology, 2007, 74, 1186-1196.	3.6	66
30	The Presumptive Magnetosome Protein Mms16 Is a Poly(3-Hydroxybutyrate) Granule-Bound Protein (Phasin) in <i>Magnetospirillum gryphiswaldense</i> . Journal of Bacteriology, 2005, 187, 2416-2425.	2.2	64
31	Identification of Genes and Proteins Necessary for Catabolism of Acyclic Terpenes and Leucine/Isovalerate in <i>Pseudomonas aeruginosa</i> . Applied and Environmental Microbiology, 2006, 72, 4819-4828.	3.1	62
32	Interaction between poly(3-hydroxybutyrate) granule-associated proteins as revealed by two-hybrid analysis and identification of a new phasin in <i>Ralstonia eutropha</i> H16. Microbiology (United Kingdom), 2011, 157, 2795-2807.	1.8	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.	1.8	59
34	Assay of Poly(3-Hydroxybutyrate) Depolymerase Activity and Product Determination. Applied and Environmental Microbiology, 2006, 72, 6094-6100.	3.1	58
35	Substrate specificities of poly(hydroxyalkanoate)-degrading bacteria and active site studies on the extracellular poly(3-hydroxyoctanoic acid) depolymerase of <i>Pseudomonas fluorescens</i> GK13. Canadian Journal of Microbiology, 1995, 41, 170-179.	1.7	56
36	Sequence analysis of a gene product synthesized by <i>Xanthomonas</i> sp. during growth on natural rubber latex. FEMS Microbiology Letters, 2003, 224, 61-65.	1.8	54

#	ARTICLE	IF	CITATIONS
37	PhaM Is the Physiological Activator of Poly(3-Hydroxybutyrate) (PHB) Synthase (PhaC1) in <i>Ralstonia eutropha</i> . <i>Applied and Environmental Microbiology</i> , 2014, 80, 555-563.	3.1	54
38	Poly(3-Hydroxybutyrate) (PHB) Depolymerase PhaZa1 Is Involved in Mobilization of Accumulated PHB in <i>Ralstonia eutropha</i> H16. <i>Applied and Environmental Microbiology</i> , 2008, 74, 1058-1063.	3.1	53
39	Methylcrotonyl-CoA and geranyl-CoA carboxylases are involved in leucine/isovalerate utilization (Liu) and acyclic terpene utilization (Atu), and are encoded by <i>liuB/liuD</i> and <i>atuC/atuF</i> , in <i>Pseudomonas aeruginosa</i> . <i>Microbiology (United Kingdom)</i> , 2005, 151, 3649-3656.	1.8	50
40	The protective role of PHB and its degradation products against stress situations in bacteria. <i>FEMS Microbiology Reviews</i> , 2021, 45, .	8.6	50
41	Fluorescence Microscopical Investigation of Poly(3-hydroxybutyrate) Granule Formation in Bacteria. <i>Biomacromolecules</i> , 2005, 6, 598-603.	5.4	48
42	Polyester Modification of the Mammalian TRPM8 Channel Protein: Implications for Structure and Function. <i>Cell Reports</i> , 2013, 4, 302-315.	6.4	48
43	Comparative Proteome Analysis Reveals Four Novel Polyhydroxybutyrate (PHB) Granule-Associated Proteins in <i>Ralstonia eutropha</i> H16. <i>Applied and Environmental Microbiology</i> , 2015, 81, 1847-1858.	3.1	48
44	Biochemical and spectroscopic characterization of purified Latex Clearing Protein (Lcp) from newly isolated rubber degrading <i>Rhodococcus rhodochrous</i> strain RPK1 reveals novel properties of Lcp. <i>BMC Microbiology</i> , 2016, 16, 92.	3.3	48
45	Poly(3-Hydroxyvalerate) Depolymerase of <i>Pseudomonas lemoignei</i> . <i>Applied and Environmental Microbiology</i> , 2000, 66, 1385-1392.	3.1	47
46	Thermotolerant poly(3-hydroxybutyrate)-degrading bacteria from hot compost and characterization of the PHB depolymerase of <i>Schlegelella</i> sp. KB1a. <i>Archives of Microbiology</i> , 2004, 182, 157-64.	2.2	47
47	Determination of Polyhydroxybutyrate (PHB) Content in <i>Ralstonia eutropha</i> Using Gas Chromatography and Nile Red Staining. <i>Bio-protocol</i> , 2018, 8, e2748.	0.4	47
48	Rubber Oxygenase and Latex Clearing Protein Cleave Rubber to Different Products and Use Different Cleavage Mechanisms. <i>Applied and Environmental Microbiology</i> , 2014, 80, 5012-5020.	3.1	46
49	Latex Clearing Protein (Lcp) of <i>Streptomyces</i> sp. Strain K30 Is a <i>b</i> -Type Cytochrome and Differs from Rubber Oxygenase A (RoxA) in Its Biophysical Properties. <i>Applied and Environmental Microbiology</i> , 2015, 81, 3793-3799.	3.1	45
50	Activation-Independent Cyclization of Monoterpenoids. <i>Applied and Environmental Microbiology</i> , 2012, 78, 1055-1062.	3.1	43
51	Structure of the processive rubber oxygenase RoxA from <i>Xanthomonas</i> sp. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 13833-13838.	7.1	41
52	Structural Basis of Poly(3-Hydroxybutyrate) Hydrolysis by PhaZ7 Depolymerase from <i>Paucimonas lemoignei</i> . <i>Journal of Molecular Biology</i> , 2008, 382, 1184-1194.	4.2	39
53	Rubber oxygenases. <i>Applied Microbiology and Biotechnology</i> , 2019, 103, 125-142.	3.6	38
54	Spectroscopic properties of rubber oxygenase RoxA from <i>Xanthomonas</i> sp., a new type of dihaem dioxxygenase. <i>Microbiology (United Kingdom)</i> , 2010, 156, 2537-2548.	1.8	35

#	ARTICLE	IF	CITATIONS
55	RoxB Is a Novel Type of Rubber Oxygenase That Combines Properties of Rubber Oxygenase RoxA and Latex Clearing Protein (Lcp). <i>Applied and Environmental Microbiology</i> , 2017, 83, .	3.1	35
56	Functional Identification of Rubber Oxygenase (RoxA) in Soil and Marine Myxobacteria. <i>Applied and Environmental Microbiology</i> , 2013, 79, 6391-6399.	3.1	34
57	Three different proteins exhibiting NAD-dependent acetaldehyde dehydrogenase activity from <i>Alcaligenes eutrophus</i> . <i>FEBS Journal</i> , 1987, 167, 541-548.	0.2	33
58	Identification and characterisation of the catalytic triad of the alkaliphilic thermotolerant PHA depolymerase PhaZ7 of <i>Paucimonas lemoignei</i> . <i>FEMS Microbiology Letters</i> , 2003, 224, 107-112.	1.8	33
59	Absence of ppGpp Leads to Increased Mobilization of Intermediately Accumulated Poly(3-Hydroxybutyrate) in <i>Ralstonia eutropha</i> H16. <i>Applied and Environmental Microbiology</i> , 2017, 83, .	3.1	33
60	Catabolism of citronellol and related acyclic terpenoids in pseudomonads. <i>Applied Microbiology and Biotechnology</i> , 2010, 87, 859-869.	3.6	32
61	Cleavage of Rubber by the Latex Clearing Protein (Lcp) of <i>Streptomyces</i> sp. Strain K30: Molecular Insights. <i>Applied and Environmental Microbiology</i> , 2016, 82, 6593-6602.	3.1	32
62	The activator of the <i>Rhodospirillum rubrum</i> PHB depolymerase is a polypeptide that is extremely resistant to high temperature (121Å,Å°C) and other physical or chemical stresses. <i>FEMS Microbiology Letters</i> , 2004, 230, 265-274.	1.8	29
63	Structural and Functional Analysis of Latex Clearing Protein (Lcp) Provides Insight into the Enzymatic Cleavage of Rubber. <i>Scientific Reports</i> , 2017, 7, 6179.	3.3	29
64	Substrate specificity of a novel squalene-hopene cyclase from <i>Zymomonas mobilis</i> . <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2012, 84, 72-77.	1.8	28
65	Utilization of geraniol is dependent on molybdenum in <i>Pseudomonas aeruginosa</i> : evidence for different metabolic routes for oxidation of geraniol and citronellol. <i>Microbiology (United Kingdom)</i> , 2005, 151, 2277-2283.	1.8	26
66	Identification and characterization of the acyclic terpene utilization gene cluster of <i>Pseudomonas citronellolis</i> . <i>FEMS Microbiology Letters</i> , 2006, 264, 220-225.	1.8	26
67	Metabolic and taxonomic insights into the Gram-negative natural rubber degrading bacterium <i>Steroidobacter cummioxidans</i> sp. nov., strain 35Y. <i>PLoS ONE</i> , 2018, 13, e0197448.	2.5	26
68	Phe317 Is Essential for Rubber Oxygenase RoxA Activity. <i>Applied and Environmental Microbiology</i> , 2012, 78, 7876-7883.	3.1	25
69	Biochemical analysis and structure determination of <i>Paucimonas lemoignei</i> poly(3-Åhydroxybutyrate) (PHB) depolymerase PhaZ7 muteins reveal the PHB binding site and details of substrate-enzyme interactions. <i>Molecular Microbiology</i> , 2013, 90, 649-664.	2.5	24
70	Formation of Polyphosphate by Polyphosphate Kinases and Its Relationship to Poly(3-Hydroxybutyrate) Accumulation in <i>Ralstonia eutropha</i> Strain H16. <i>Applied and Environmental Microbiology</i> , 2015, 81, 8277-8293.	3.1	24
71	Proteins with CHADs (Conserved Histidine ±-Helical Domains) Are Attached to Polyphosphate Granules <i>In Vivo</i> and Constitute a Novel Family of Polyphosphate-Associated Proteins (Phosins). <i>Applied and Environmental Microbiology</i> , 2017, 83, .	3.1	24
72	Prokaryotic squalene-hopene cyclases can be converted to citronellal cyclases by single amino acid exchange. <i>Applied Microbiology and Biotechnology</i> , 2013, 97, 1571-1580.	3.6	23

#	ARTICLE	IF	CITATIONS
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. <i>FEMS Microbiology Letters</i> , 2008, 286, 78-84.	1.8	22
74	Production of functionalized oligoisoprenoids by enzymatic cleavage of rubber. <i>Microbial Biotechnology</i> , 2017, 10, 1426-1433.	4.2	22
75	Microscopical investigation of poly(3-hydroxybutyrate) granule formation in <i>Azotobacter vinelandii</i> . <i>FEMS Microbiology Letters</i> , 2007, 266, 60-64.	1.8	21
76	Biochemical characterization of AtuD from <i>Pseudomonas aeruginosa</i> , the first member of a new subgroup of acyl-CoA dehydrogenases with specificity for citronellyl-CoA. <i>Microbiology (United Kingdom)</i> , 2007, 157, 1071-1079.	1.0	21
77	<i>Rhizobacter gummiphilus</i> NS21 has two rubber oxygenases (RoxA and RoxB) acting synergistically in rubber utilisation. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 10245-10257.	3.6	21
78	To Be or Not To Be a Poly(3-Hydroxybutyrate) (PHB) Depolymerase: PhaZd1 (PhaZ6) and PhaZd2 (PhaZ7) of <i>Ralstonia eutropha</i> , Highly Active PHB Depolymerases with No Detectable Role in Mobilization of Accumulated PHB. <i>Applied and Environmental Microbiology</i> , 2014, 80, 4936-4946.	3.1	20
79	Production of PHA depolymerase A (PhaZ5) from <i>Paucimonas lemoignei</i> in <i>Bacillus subtilis</i> . <i>FEMS Microbiology Letters</i> , 2002, 209, 237-241.	1.8	19
80	Inactivation of an intracellular poly-3-hydroxybutyrate depolymerase of <i>Azotobacter vinelandii</i> allows to obtain a polymer of uniform high molecular mass. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 2693-2707.	3.6	19
81	PQQ-Dependent Alcohol Dehydrogenase (QEDH) of <i>Pseudomonas aeruginosa</i> is involved in catabolism of acyclic terpenes. <i>Journal of Basic Microbiology</i> , 2010, 50, 119-124.	3.3	17
82	AtuR is a repressor of acyclic terpene utilization (Atu) gene cluster expression and specifically binds to two 13-bp inverted repeat sequences of the <i>atuA-atuR</i> intergenic region. <i>FEMS Microbiology Letters</i> , 2010, 308, no-no.	1.8	16
83	Biochemical characterization of a new type of intracellular PHB depolymerase from <i>Rhodospirillum rubrum</i> with high hydrolytic activity on native PHB granules. <i>Applied Microbiology and Biotechnology</i> , 2011, 89, 1487-1495.	3.6	16
84	Malate:quinone oxidoreductase (MqoB) is required for growth on acetate and linear terpenes in <i>Pseudomonas citronellolis</i> . <i>FEMS Microbiology Letters</i> , 2005, 246, 25-31.	1.8	15
85	Low temperature-induced viable but not culturable state of <i>Ralstonia eutropha</i> and its relationship to accumulated polyhydroxybutyrate. <i>FEMS Microbiology Letters</i> , 2016, 363, fnw249.	1.8	14
86	New Insights into PhaM-PhaC-Mediated Localization of Polyhydroxybutyrate Granules in <i>Ralstonia eutropha</i> H16. <i>Applied and Environmental Microbiology</i> , 2017, 83, .	3.1	14
87	Acidocalcisomes and Polyphosphate Granules Are Different Subcellular Structures in <i>Agrobacterium tumefaciens</i> . <i>Applied and Environmental Microbiology</i> , 2020, 86, .	3.1	14
88	The structure of PhaZ7 at atomic (1.2-Å) resolution reveals details of the active site and suggests a substrate-binding mode. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2010, 66, 648-654.	0.7	13
89	Poly(3-Hydroxybutyrate) (PHB) Polymerase PhaC1 and PHB Depolymerase PhaZa1 of <i>Ralstonia eutropha</i> Are Phosphorylated <i>In Vivo</i> . <i>Applied and Environmental Microbiology</i> , 2018, 84, .	3.1	13
90	Production of medium-chain-length hydroxyalkanoic acids from <i>Pseudomonas putida</i> in pH stat. <i>Applied Microbiology and Biotechnology</i> , 2007, 75, 1047-1053.	3.6	12

#	ARTICLE	IF	CITATIONS
91	Formation of an Organicâ€“Inorganic Biopolymer: Polyhydroxybutyrateâ€“Polyphosphate. <i>Biomacromolecules</i> , 2019, 20, 3253-3260.	5.4	11
92	Assays for the Detection of Rubber Oxygenase Activities. <i>Bio-protocol</i> , 2017, 7, e2188.	0.4	11
93	Characterization of <i>Agrobacterium tumefaciens</i> PPKs reveals the formation of oligophosphorylated products up to nucleoside nona-phosphates. <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 9683-9692.	3.6	10
94	A universal polyphosphate kinase: PPK2c of <i>Ralstonia eutropha</i> accepts purine and pyrimidine nucleotides including uridine diphosphate. <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 6659-6667.	3.6	10
95	Tyrosine 105 of <i>Paucimonas lemoignei</i> PHB depolymerase PhaZ7 is essential for polymer binding. <i>Polymer Degradation and Stability</i> , 2010, 95, 1429-1435.	5.8	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. <i>Applied and Environmental Microbiology</i> , 2013, 79, 2989-2999.	3.1	9
97	The Multiple Roles of Polyphosphate in <i>Ralstonia eutropha</i> and Other Bacteria. <i>Microbial Physiology</i> , 2021, 31, 163-177.	2.4	9
98	The <i>Pseudomonas aeruginosa</i> Isohexenyl Glutaconyl Coenzyme A Hydratase (AtuE) Is Upregulated in Citronellate-Grown Cells and Belongs to the Crotonase Family. <i>Applied and Environmental Microbiology</i> , 2015, 81, 6558-6566.	3.1	8
99	Crystal structure analysis, covalent docking, and molecular dynamics calculations reveal a conformational switch in PhaZ7 PHB depolymerase. <i>Proteins: Structure, Function and Bioinformatics</i> , 2017, 85, 1351-1361.	2.6	7
100	Crystallization and preliminary X-ray analysis of a novel thermoalkalophilic poly(3-hydroxybutyrate) depolymerase (PhaZ7) from <i>Paucimonas lemoignei</i> . <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2005, 61, 479-481.	0.7	6
101	<i>Solimonas fluminis</i> has an active latex-clearing protein. <i>Applied Microbiology and Biotechnology</i> , 2019, 103, 8229-8239.	3.6	6
102	Carbonosomes. <i>Microbiology Monographs</i> , 2020, , 243-275.	0.6	4
103	Towards the understanding of the enzymatic cleavage of polyisoprene by the dihaem-dioxygenase RoxA. <i>AMB Express</i> , 2019, 9, 166.	3.0	3
104	Migration of Polyphosphate Granules in <i>Agrobacterium tumefaciens</i> . <i>Microbial Physiology</i> , 2022, 32, 71-82.	2.4	3
105	Polyphosphate Granules and Acidocalcisomes. <i>Microbiology Monographs</i> , 2020, , 1-17.	0.6	2