M Auxiliadora Prieto

List of Publications by Year
in descending order

95 papers	4,092 citations	94433 37 h-index	128289 60 g-index
99 all docs	99 docs citations	99 times ranked	4134 citing authors

#	Article	IF	Citations
1	Biodegradation of Aromatic Compounds by Escherichia coli. Microbiology and Molecular Biology Reviews, 2001, 65, 523-569.	6.6	314
2	Functional Analysis of the Small Component of the 4-Hydroxyphenylacetate 3-Monooxygenase of Escherichia coli W: a Prototype of a New Flavin:NAD(P)H Reductase Subfamily. Journal of Bacteriology, 2000, 182, 627-636.	2.2	178
3	A holistic view of polyhydroxyalkanoate metabolism in <i>Pseudomonas putida</i>. Environmental Microbiology, 2016, 18, 341-357.	3.8	165
4	Bacterial promoters triggering biodegradation of aromatic pollutants. Current Opinion in Biotechnology, 2000, 11, 467-475.	6.6	151
5	Plastic waste as a novel substrate for industrial biotechnology. Microbial Biotechnology, 2015, 8, 900-903.	4.2	134
6	The metabolic response of P. putida KT2442 producing high levels of polyhydroxyalkanoate under single- and multiple-nutrient-limited growth: Highlights from a multi-level omics approach. Microbial Cell Factories, 2012, 11, 34.	4.0	117
7	Novel Biodegradable Aromatic Plastics from a Bacterial Source. Journal of Biological Chemistry, 1999, 274, 29228-29241.	3.4	116
8	The turnover of mediumâ€chainâ€length polyhydroxyalkanoates in <i>Pseudomonas putida</i> KT2442 and the fundamental role of PhaZ depolymerase for the metabolic balance. Environmental Microbiology, 2010, 12, 207-221.	3.8	108
9	Nucleoidâ€associated PhaF phasin drives intracellular location and segregation of polyhydroxyalkanoate granules in <i>Pseudomonas putida</i> KT2442. Molecular Microbiology, 2011, 79, 402-418.	2.5	102
10	The polyhydroxyalkanoate metabolism controls carbon and energy spillage in <i>Pseudomonas putida</i>. Environmental Microbiology, 2012, 14, 1049-1063.	3.8	92
11	In Vivo Immobilization of Fusion Proteins on Bioplastics by the Novel Tag BioF. Applied and Environmental Microbiology, 2004, 70, 3205-3212.	3.1	88
12	The role of GlpR repressor in <i>Pseudomonas putida</i> KT2440 growth and PHA production from glycerol. Environmental Microbiology, 2013, 15, 93-110.	3.8	80
13	Plastic waste management, a matter for the â€˜communityâ€™. Microbial Biotechnology, 2019, 12, 66-68.	4.2	78
14	Biochemical Evidence That phaZ Gene Encodes a Specific Intracellular Medium Chain Length Polyhydroxyalkanoate Depolymerase in Pseudomonas putida KT2442. Journal of Biological Chemistry, 2007, 282, 4951-4962.	3.4	77
15	Disruption of Î²-oxidation pathway in Pseudomonas putida KT2442 to produce new functionalized PHAs with thioester groups. Applied Microbiology and Biotechnology, 2011, 89, 1583-1598.	3.6	77
16	Controlled autolysis facilitates the polyhydroxyalkanoate recovery in <i>Pseudomonas putida</i> KT2440. Microbial Biotechnology, 2011, 4, 533-547.	4.2	75
17	The contribution of microbial biotechnology to sustainable development goals. Microbial Biotechnology, 2017, 10, 984-987.	4.2	73
18	Engineering a predatory bacterium as a proficient killer agent for intracellular bio-products recovery: The case of the polyhydroxyalkanoates. Scientific Reports, 2016, 6, 24381.	3.3	71

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19	Two-stage continuous process development for the production of medium-chain-length poly(3-hydroxyalkanoates). Biotechnology and Bioengineering, 2001, 72, 19-24.	3.3	69
20	Engineering Native and Synthetic Pathways in <i>Pseudomonas putida</i> for the Production of Tailored Polyhydroxyalkanoates. Biotechnology Journal, 2021, 16, e2000165.	3.5	67
21	PHACOS, a functionalized bacterial polyester with bactericidal activity against methicillin-resistant Staphylococcus aureus. Biomaterials, 2014, 35, 14-24.	11.4	63
22	Molecular determinants of the hpa regulatory system of Escherichia coli: the HpaR repressor. Nucleic Acids Research, 2003, 31, 6598-6609.	14.5	62
23	Identification and Biochemical Evidence of a Medium-Chain-Length Polyhydroxyalkanoate Depolymerase in the Bdellovibrio bacteriovorus Predatory Hydrolytic Arsenal. Applied and Environmental Microbiology, 2012, 78, 6017-6026.	3.1	62
24	Molecular characterization of PadA, a phenylacetaldehyde dehydrogenase fromEscherichia coli. FEBS Letters, 1997, 406, 23-27.	2.8	61
25	Biosynthesis of silver nanoparticles and polyhydroxybutyrate nanocomposites of interest in antimicrobial applications. International Journal of Biological Macromolecules, 2018, 108, 426-435.	7.5	60
26	Second-generation functionalized medium-chain-length polyhydroxyalkanoates: the gateway to high-value bioplastic applications. International Microbiology, 2013, 16, 1-15.	2.4	60
27	The PhaD regulator controls the simultaneous expression of the <i>pha</i> genes involved in polyhydroxyalkanoate metabolism and turnover in <i>Pseudomonas putida</i> KT2442. Environmental Microbiology, 2010, 12, 1591-1603.	3.8	59
28	To be, or not to be biodegradableâ€¦ that is the question for the bioâ€based plastics. Microbial Biotechnology, 2016, 9, 652-657.	4.2	58
29	Bacterial cellulose as a potential bioleather substitute for the footwear industry. Microbial Biotechnology, 2019, 12, 582-585.	4.2	55
30	New challenges for syngas fermentation: towards production of biopolymers. Journal of Chemical Technology and Biotechnology, 2015, 90, 1735-1751.	3.2	53
31	A New Family of Intrinsically Disordered Proteins: Structural Characterization of the Major Phasin PhaF from Pseudomonas putida KT2440. PLoS ONE, 2013, 8, e56904.	2.5	51
32	Smart polyhydroxyalkanoate nanobeads by protein based functionalization. Nanomedicine: Nanotechnology, Biology, and Medicine, 2015, 11, 885-899.	3.3	51
33	Carbon roadmap from syngas to polyhydroxyalkanoates in <scp><i>R</i></scp><i>hodospirillum rubrum</i>. Environmental Microbiology, 2016, 18, 708-720.	3.8	44
34	Cloning and sequencing of the pac gene encoding the penicillin G acylase of Bacillus megaterium ATCC 14945. FEMS Microbiology Letters, 1995, 125, 287-292.	1.8	40
35	Identification of a Novel Positive Regulator of the 4-Hydroxyphenylacetate Catabolic Pathway ofEscherichia coli. Biochemical and Biophysical Research Communications, 1997, 232, 759-765.	2.1	39
36	Macroporous Scaffolds Based on Chitosan and Bioactive Moleculesâ€. Journal of Bioactive and Compatible Polymers, 2007, 22, 621-636.	2.1	39

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37	New insights on the reorganization of gene transcription in Pseudomonas putida KT2440 at elevated pressure. Microbial Cell Factories, 2013, 12, 30.	4.0	39
38	By-products of the cider production: an alternative source of nutrients to produce bacterial cellulose. Cellulose, 2017, 24, 2071-2082.	4.9	38
39	Identification of the 4-hydroxyphenylacetate transport gene ofEscherichia coliW : construction of a highly sensitive cellular biosensor. FEBS Letters, 1997, 414, 293-297.	2.8	35
40	Characterization of a Novel Subgroup of Extracellular Medium-Chain-Length Polyhydroxyalkanoate Depolymerases from Actinobacteria. Applied and Environmental Microbiology, 2012, 78, 7229-7237.	3.1	33
41	A phasin with extra talents: a polyhydroxyalkanoate granuleâ€associated protein has chaperone activity. Environmental Microbiology, 2015, 17, 1765-1776.	3.8	33
42	Plastic Biodegradation: Challenges and Opportunities. , 2018, , 1-29.		33
43	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
44	Improvement on the yield of polyhydroxyalkanotes production from cheese whey by a recombinant Escherichia coli strain using the proton suicide methodology. Enzyme and Microbial Technology, 2014, 55, 151-158.	3.2	32
45	Genome Sequence of the Methanotrophic Poly-Î²-Hydroxybutyrate Producer Methylocystis parvus OBBP. Journal of Bacteriology, 2012, 194, 5709-5710.	2.2	31
46	Swapping of Phasin Modules To Optimize the In Vivo Immobilization of Proteins to Medium-Chain-Length Polyhydroxyalkanoate Granules in Pseudomonas putida. Biomacromolecules, 2013, 14, 3285-3293.	5.4	30
47	The <scp>Crc</scp> protein inhibits the production of polyhydroxyalkanoates in <scp><i>P</i></scp><i>seudomonas putida</i> under balanced carbon/nitrogen growth conditions. Environmental Microbiology, 2014, 16, 278-290.	3.8	30
48	Reward for <i><scp>B</scp>dellovibrio bacteriovorus</i> for preying on a polyhydroxyalkanoate producer. Environmental Microbiology, 2013, 15, 1204-1215.	3.8	29
49	Syngas obtained by microwave pyrolysis of household wastes as feedstock for polyhydroxyalkanoate production in <i>Rhodospirillum rubrum</i>. Microbial Biotechnology, 2017, 10, 1412-1417.	4.2	29
50	From Oil to Bioplastics, a Dream Come True?. Journal of Bacteriology, 2007, 189, 289-290.	2.2	25
51	The PaaX Repressor, a Link between Penicillin G Acylase and the Phenylacetyl-Coenzyme A Catabolon of Escherichia coli W. Journal of Bacteriology, 2004, 186, 2215-2220.	2.2	24
52	Superimposed Levels of Regulation of the 4-Hydroxyphenylacetate Catabolic Pathway in Escherichia coli. Journal of Biological Chemistry, 2001, 276, 37060-37068.	3.4	23
53	Extracellular production of Streptomyces exfoliatus poly(3-hydroxybutyrate) depolymerase in Rhodococcus sp. T104: determination of optimal biocatalyst conditions. Applied Microbiology and Biotechnology, 2012, 93, 1975-1988.	3.6	23
54	New tool for spreading proteins to the environment: Cry1Ab toxin immobilized to bioplastics. Applied Microbiology and Biotechnology, 2006, 72, 88-93.	3.6	22

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55	Aromatic metabolism versus carbon availability: the regulatory network that controls catabolism of less-preferred carbon sources inEscherichia coli. FEMS Microbiology Reviews, 2004, 28, 503-518.	8.6	21
56	Novel extracellular medium-chain-length polyhydroxyalkanoate depolymerase from Streptomyces exfoliatus K10 DSMZ 41693: a promising biocatalyst for the efficient degradation of natural and functionalized mcl-PHAs. Applied Microbiology and Biotechnology, 2015, 99, 9605-9615.	3.6	21
57	Genome sequence and characterization of the <i>bcs</i> clusters for the production of nanocellulose from the low <scp>pH</scp> resistant strain <i>Komagataeibacter medellinensis </i><scp>ID</scp>13488. Microbial Biotechnology, 2019, 12, 620-632.	4.2	21
58	<i>In silico</i> prospection of microorganisms to produce polyhydroxyalkanoate from whey: <i>Caulobacter segnis </i><scp>DSM</scp> 29236 as a suitable industrial strain. Microbial Biotechnology, 2019, 12, 487-501.	4.2	20
59	Polyhydroxyalkanoate Nanoparticles for Pulmonary Drug Delivery: Interaction with Lung Surfactant. Nanomaterials, 2021, 11, 1482.	4.1	20
60	Anti-staphylococcal hydrogels based on bacterial cellulose and the antimicrobial biopolyester poly(3-hydroxy-acetylthioalkanoate-co-3-hydroxyalkanoate). International Journal of Biological Macromolecules, 2020, 162, 1869-1879.	7.5	19
61	From Residues to Added-Value Bacterial Biopolymers as Nanomaterials for Biomedical Applications. Nanomaterials, 2021, 11, 1492.	4.1	19
62	A role for the regulator PsrA in the polyhydroxyalkanoate metabolism of Pseudomonas putida KT2440. International Journal of Biological Macromolecules, 2014, 71, 14-20.	7.5	18
63	Pseudomonas pseudoalcaligenes CECT5344, a cyanide-degrading bacterium with by-product (polyhydroxyalkanoates) formation capacity. Microbial Cell Factories, 2015, 14, 77.	4.0	18
64	Molecular Insights into the Physical Adsorption of Amphiphilic Protein PhaF onto Copolyester Surfaces. Biomacromolecules, 2019, 20, 3242-3252.	5.4	18
65	Comparative Analysis of the Physiological and Structural Properties of a Medium Chain Length Polyhydroxyalkanoate Depolymerase from <i>Pseudomonas putida</i> KT2442. Engineering in Life Sciences, 2008, 8, 260-267.	3.6	17
66	Cell system engineering to produce extracellular polyhydroxyalkanoate depolymerase with targeted applications. International Journal of Biological Macromolecules, 2014, 71, 28-33.	7.5	17
67	Near-infrared fluorescence imaging as an alternative to bioluminescent bacteria to monitor biomaterial-associated infections. Acta Biomaterialia, 2014, 10, 2935-2944.	8.3	17
68	Oil fractions from the pyrolysis of diverse organic wastes: The different effects of conventional and microwave induced pyrolysis. Journal of Analytical and Applied Pyrolysis, 2015, 114, 256-264.	5.5	17
69	Phasin interactome reveals the interplay of<scp>PhaF</scp>with the polyhydroxyalkanoate transcriptional regulatory protein<scp>PhaD</scp>in<i>Pseudomonas putida</i>. Environmental Microbiology, 2020, 22, 3922-3936.	3.8	16
70	Role of leucine zipper-like motifs in the oligomerization of Pseudomonas putida phasins. Biochimica Et Biophysica Acta - General Subjects, 2019, 1863, 362-370.	2.4	15
71	The effect of polyphosphate kinase gene deletion on polyhydroxyalkanoate accumulation and carbon metabolism in <i><scp>P</scp>seudomonas putida</i>â€…<scp>KT</scp>2440. Environmental Microbiology Reports, 2013, 5, 740-746.	2.4	14
72	A polyhydroxyalkanoateâ€based encapsulating strategy for â€˜bioplasticizingâ€™ microorganisms. Microbial Biotechnology, 2020, 13, 185-198.	4.2	13

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73	When microbial biotechnology meets material engineering. Microbial Biotechnology, 2022, 15, 149-163.	4.2	13
74	Interfacial Activity of Phasin PhaF fromPseudomonas putidaKT2440 at Hydrophobicâ€"Hydrophilic Biointerfaces. Langmuir, 2019, 35, 678-686.	3.5	12
75	Development of a Higee bioreactor (HBR) for production of polyhydroxyalkanoate: Hydrodynamics, gasâ€"liquid mass transfer and fermentation studies. Chemical Engineering and Processing: Process Intensification, 2010, 49, 748-758.	3.6	11
76	About how to capture and exploit the <scp>CO</scp>₂ surplus that nature, per se, is not capable of fixing. Microbial Biotechnology, 2017, 10, 1216-1225.	4.2	11
77	Poly-3-Hydroxybutyrate Functionalization with BioF-Tagged Recombinant Proteins. Applied and Environmental Microbiology, 2018, 84, .	3.1	10
78	Biogenesis of Medium-Chain-Length Polyhydroxyalkanoates. , 2019, , 457-481.		9
79	Providing new insights on the biphasic lifestyle of the predatory bacterium Bdellovibrio bacteriovorus through genome-scale metabolic modeling. PLoS Computational Biology, 2020, 16, e1007646.	3.2	9
80	Enhancement of biohydrogen production rate in Rhodospirillum rubrum by a dynamic CO-feeding strategy using dark fermentation. Biotechnology for Biofuels, 2021, 14, 168.	6.2	9
81	Strain-specific predation of Bdellovibrio bacteriovorus on Pseudomonas aeruginosa with a higher range for cystic fibrosis than for bacteremia isolates. Scientific Reports, 2022, 12, .	3.3	9
82	Polymeric systems containing dual biologically active ions. European Journal of Medicinal Chemistry, 2011, 46, 4980-4991.	5.5	8
83	Determination of the Predatory Capability of Bdellovibrio bacteriovorus HD100. Bio-protocol, 2017, 7, e2177.	0.4	8
84	Dissecting the Polyhydroxyalkanoate-Binding Domain of the PhaF Phasin: Rational Design of a Minimized Affinity Tag. Applied and Environmental Microbiology, 2020, 86, .	3.1	7
85	Synthetic Control of Metabolic States in Pseudomonas putida by Tuning Polyhydroxyalkanoate Cycle. MBio, 2022, 13, e0179421.	4.1	7
86	Genome Sequence of Streptomyces exfoliatus DSMZ 41693, a Source of Poly(3-Hydroxyalkanoate)-Degrading Enzymes. Genome Announcements, 2014, 2, .	0.8	5
87	Plastic Biodegradation: Challenges and Opportunities. , 2019, , 333-361.		5
88	Biogenesis of Medium-Chain-Length Polyhydroxyalkanoates. , 2017, , 1-25.		3
89	Molecular Basis of Medium-Chain Length-PHA Metabolism of Pseudomonas putida. , 2020, , 89-114.		1
90	Expression Profile ofphaGene Cluster ofPseudomonas putidaKT2442. Macromolecular Symposia, 2008, 269, 8-10.	0.7	0

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91	â€œMentor in Bioeconomicsavant la lettreâ€: A tribute to Bernard Witholt by those who worked with him. Microbial Biotechnology, 2015, 8, 617-621.	4.2	0
92	Title is missing!. , 2020, 16, e1007646.		0
93	Title is missing!. , 2020, 16, e1007646.		0
94	Title is missing!. , 2020, 16, e1007646.		0
95	Title is missing!. , 2020, 16, e1007646.		0