Eduardo Diaz

List of Publications by Year
in descending order

81 papers	4,451 citations	126907 33 h-index	106344 65 g-index
85 all docs	85 docs citations	85 times ranked	4716 citing authors

#	Article	IF	Citations
1	Genomic analysis of the aromatic catabolic pathways from <i>Pseudomonas putida</i> KT2440. Environmental Microbiology, 2002, 4, 824-841.	3.8	448
2	Anaerobic Catabolism of Aromatic Compounds: a Genetic and Genomic View. Microbiology and Molecular Biology Reviews, 2009, 73, 71-133.	6.6	378
3	Biodegradation of Aromatic Compounds by Escherichia coli. Microbiology and Molecular Biology Reviews, 2001, 65, 523-569.	6.6	314
4	The Homogentisate Pathway: a Central Catabolic Pathway Involved in the Degradation of l-Phenylalanine, l-Tyrosine, and 3-Hydroxyphenylacetate in Pseudomonas putida. Journal of Bacteriology, 2004, 186, 5062-5077.	2.2	225
5	Bacterial degradation of aromatic pollutants: a paradigm of metabolic versatility. International Microbiology, 2004, 7, 173-80.	2.4	203
6	Bacterial promoters triggering biodegradation of aromatic pollutants. Current Opinion in Biotechnology, 2000, 11, 467-475.	6.6	151
7	Aerobic degradation of aromatic compounds. Current Opinion in Biotechnology, 2013, 24, 431-442.	6.6	148
8	Deciphering the genetic determinants for aerobic nicotinic acid degradation: The <i>nic</i> cluster from <i>Pseudomonas putida</i> KT2440. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11329-11334.	7.1	136
9	Growth phase-dependent expression of the Pseudomonas putida KT2440 transcriptional machinery analysed with a genome-wide DNA microarray. Environmental Microbiology, 2006, 8, 165-177.	3.8	123
10	The<i>bzd</i>Gene Cluster, Coding for Anaerobic Benzoate Catabolism, in<i>Azoarcus</i>sp. Strain CIB. Journal of Bacteriology, 2004, 186, 5762-5774.	2.2	111
11	The evolutionary relationship of biphenyl dioxygenase from Gram-positive Rhodococcus globerulus P6 to multicomponent dioxygenases from Gram-negative bacteria. Gene, 1995, 156, 11-18.	2.2	93
12	Bacterial Degradation of Benzoate. Journal of Biological Chemistry, 2012, 287, 10494-10508.	3.4	91
13	Engineering synthetic bacterial consortia for enhanced desulfurization and revalorization of oil sulfur compounds. Metabolic Engineering, 2016, 35, 46-54.	7.0	85
14	Biosynthesis of selenium nanoparticles by Azoarcus sp. CIB. Microbial Cell Factories, 2016, 15, 109.	4.0	83
15	Enhancing desulphurization by engineering a flavin reductase-encoding gene cassette in recombinant biocatalysts. Environmental Microbiology, 2000, 2, 687-694.	3.8	82
16	Speeding up bioproduction of selenium nanoparticles by using Vibrio natriegens as microbial factory. Scientific Reports, 2017, 7, 16046.	3.3	81
17	BzdR, a Repressor That Controls the Anaerobic Catabolism of Benzoate in Azoarcus sp. CIB, Is the First Member of a New Subfamily of Transcriptional Regulators. Journal of Biological Chemistry, 2005, 280, 10683-10694.	3.4	77
18	The Behavior of Bacteria Designed for Biodegradation. Nature Biotechnology, 1994, 12, 1349-1356.	17.5	76

#	ARTICLE	IF	CITATIONS
19	Universal barrier to lateral spread of specific genes among microorganisms. Molecular Microbiology, 1994, 13, 855-861.	2.5	75
20	Whole-genome analysis of Azoarcus sp. strain CIB provides genetic insights to its different lifestyles and predicts novel metabolic features. Systematic and Applied Microbiology, 2015, 38, 462-471.	2.8	73
21	Unravelling the gallic acid degradation pathway in bacteria: the <i>gal</i> cluster from <i>Pseudomonas putida</i>. Molecular Microbiology, 2011, 79, 359-374.	2.5	72
22	Metabolic and process engineering for biodesulfurization in Gram-negative bacteria. Journal of Biotechnology, 2017, 262, 47-55.	3.8	58
23	A dual lethal system to enhance containment of recombinant micro-organisms. Microbiology (United) Tj ETQq1 1 0.784314 rgBT /Overl	1.8	57
24	Characterization of the last step of the aerobic phenylacetic acid degradation pathway. Microbiology (United Kingdom), 2007, 153, 357-365.	1.8	55
25	Molecular Characterization of the Gallate Dioxygenase from Pseudomonas putida KT2440. Journal of Biological Chemistry, 2005, 280, 35382-35390.	3.4	53
26	New challenges for syngas fermentation: towards production of biopolymers. Journal of Chemical Technology and Biotechnology, 2015, 90, 1735-1751.	3.2	53
27	Azoarcus sp. CIB, an Anaerobic Biodegrader of Aromatic Compounds Shows an Endophytic Lifestyle. PLoS ONE, 2014, 9, e110771.	2.5	49
28	The two-step lysis system of pneumococcal bacteriophage EJ-1 is functional in Gram-negative bacteria: triggering of the major pneumococcal autolysin in Escherichia coli. Molecular Microbiology, 1996, 19, 667-681.	2.5	48
29	Regulation of the mhp Cluster Responsible for 3-(3-Hydroxyphenyl)propionic Acid Degradation in Escherichia coli. Journal of Biological Chemistry, 2003, 278, 27575-27585.	3.4	42
30	Genomic Insights in the Metabolism of Aromatic Compounds in Pseudomonas. , 2004, , 425-462.		41
31	A second chromosomal copy of the <scp><i>catA</i></scp> gene endows <scp><i>P</i></scp><i>seudomonas putida</i>â€…<scp>mt</scp>â€2 with an enzymatic safety valve for excess of catechol. Environmental Microbiology, 2014, 16, 1767-1778.	3.8	38
32	Characterization of the <i>mbd</i> cluster encoding the anaerobic 3â€methylbenzoylâ€CoA central pathway. Environmental Microbiology, 2013, 15, 148-166.	3.8	37
33	Genetic Characterization of the Phenylacetyl-Coenzyme A Oxygenase from the Aerobic Phenylacetic Acid Degradation Pathway of Escherichia coli. Applied and Environmental Microbiology, 2006, 72, 7422-7426.	3.1	36
34	Analysis of Dibenzothiophene Desulfurization in a Recombinant Pseudomonas putida Strain. Applied and Environmental Microbiology, 2009, 75, 875-877.	3.1	34
35	Biochemical Characterization of the Transcriptional Regulator BzdR from Azoarcus sp. CIB. Journal of Biological Chemistry, 2010, 285, 35694-35705.	3.4	33
36	Testosterone Degradative Pathway of Novosphingobium tardaugens. Genes, 2019, 10, 871.	2.4	30

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37	Coregulation by Phenylacetyl-Coenzyme A-Responsive PaaX Integrates Control of the Upper and Lower Pathways for Catabolism of Styrene by Pseudomonas sp. Strain Y2. Journal of Bacteriology, 2006, 188, 4812-4821.	2.2	29
38	Genetic characterization of the styrene lower catabolic pathway of Pseudomonas sp. strain Y2. Gene, 2003, 319, 71-83.	2.2	28
39	3-Hydroxyphenylpropionate and Phenylpropionate Are Synergistic Activators of the MhpR Transcriptional Regulator from Escherichia coli. Journal of Biological Chemistry, 2009, 284, 21218-21228.	3.4	28
40	Insights on the regulation of the phenylacetate degradation pathway from <scp><i>E</i></scp><i>scherichia coli</i>. Environmental Microbiology Reports, 2014, 6, 239-250.	2.4	27
41	A gene containment strategy based on a restriction-modification system. Environmental Microbiology, 2000, 2, 555-563.	3.8	26
42	Bioconversion of lignin-derived aromatics into the building block pyridine 2,4-dicarboxylic acid by engineering recombinant Pseudomonas putida strains. Bioresource Technology, 2022, 346, 126638.	9.6	24
43	A stringently controlled expression system for analysing lateral gene transfer between bacteria. Molecular Microbiology, 1996, 21, 293-300.	2.5	23
44	Identification of the<i>Geobacter metallireducens</i>BamVW Two-Component System, Involved in Transcriptional Regulation of Aromatic Degradation. Applied and Environmental Microbiology, 2010, 76, 383-385.	3.1	23
45	Transcriptional Regulation of the Peripheral Pathway for the Anaerobic Catabolism of Toluene and m-Xylene in Azoarcus sp. CIB. Frontiers in Microbiology, 2018, 9, 506.	3.5	23
46	Suicide Microbes on the Loose. Nature Biotechnology, 1995, 13, 35-37.	17.5	22
47	A finely tuned regulatory circuit of the nicotinic acid degradation pathway in <i>Pseudomonas putida</i>. Environmental Microbiology, 2011, 13, 1718-1732.	3.8	22
48	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
49	Characterization of the transcription unit encoding the major pneumococcal autolysin. Gene, 1990, 90, 157-162.	2.2	20
50	Identification and analysis of a glutaryl-CoA dehydrogenase-encoding gene and its cognate transcriptional regulator from Azoarcus sp. CIB. Environmental Microbiology, 2008, 10, 474-482.	3.8	20
51	The ICE_{<i>XTD</i>} of <i>Azoarcus</i> sp. CIB, an integrative and conjugative element with aerobic and anaerobic catabolic properties. Environmental Microbiology, 2016, 18, 5018-5031.	3.8	20
52	Oxygen-Dependent Regulation of the Central Pathway for the Anaerobic Catabolism of Aromatic Compounds in<i>Azoarcus</i>sp. Strain CIB. Journal of Bacteriology, 2006, 188, 2343-2354.	2.2	19
53	AccR Is a Master Regulator Involved in Carbon Catabolite Repression of the Anaerobic Catabolism of Aromatic Compounds in Azoarcus sp. CIB. Journal of Biological Chemistry, 2014, 289, 1892-1904.	3.4	19
54	Ironâ€reducing bacteria unravel novel strategies for the anaerobic catabolism of aromatic compounds. Molecular Microbiology, 2005, 58, 1210-1215.	2.5	18

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55	Four Molybdenum-Dependent Steroid C-25 Hydroxylases: Heterologous Overproduction, Role in Steroid Degradation, and Application for 25-Hydroxyvitamin D ₃ Synthesis. MBio, 2018, 9, .	4.1	16
56	Design of catabolic cassettes for styrene biodegradation. Antonie Van Leeuwenhoek, 2003, 84, 17-24.	1.7	15
57	Genetic clues on the evolution of anaerobic catabolism of aromatic compounds. Microbiology (United Kingdom), 2004, 150, 2018-2021.	1.8	15
58	New insights into the BzdR-mediated transcriptional regulation of the anaerobic catabolism of benzoate in Azoarcus sp. CIB. Microbiology (United Kingdom), 2008, 154, 306-316.	1.8	15
59	ArxA From Azoarcus sp. CIB, an Anaerobic Arsenite Oxidase From an Obligate Heterotrophic and Mesophilic Bacterium. Frontiers in Microbiology, 2019, 10, 1699.	3.5	14
60	Enhancing the Rice Seedlings Growth Promotion Abilities of Azoarcus sp. CIB by Heterologous Expression of ACC Deaminase to Improve Performance of Plants Exposed to Cadmium Stress. Microorganisms, 2020, 8, 1453.	3.6	14
61	Construction of a broad-host-range pneumococcal promoter-probe plasmid. Gene, 1990, 90, 163-167.	2.2	13
62	Identification of a Missing Link in the Evolution of an Enzyme into a Transcriptional Regulator. PLoS ONE, 2013, 8, e57518.	2.5	13
63	Unraveling the Specific Regulation of the Central Pathway for Anaerobic Degradation of 3-Methylbenzoate. Journal of Biological Chemistry, 2015, 290, 12165-12183.	3.4	13
64	Degradation of cyclic diguanosine monophosphate by a hybrid two-component protein protects <i>Azoarcus</i> sp. strain CIB from toluene toxicity. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13174-13179.	7.1	13
65	Refactoring the Î» phage lytic/lysogenic decision with a synthetic regulator. MicrobiologyOpen, 2016, 5, 575-581.	3.0	12
66	Restricting the Dispersal of Recombinant DNA: Design of a Contained Biological Catalyst. Nature Biotechnology, 1996, 14, 189-191.	17.5	11
67	Genome Sequence of <i>Pseudomonas azelaica</i> HBP1, Which Catabolizes 2-Hydroxybiphenyl Fungicide. Genome Announcements, 2014, 2, .	0.8	11
68	Plasmids as Tools for Containment. Microbiology Spectrum, 2014, 2, .	3.0	10
69	Motility, Adhesion and c-di-GMP Influence the Endophytic Colonization of Rice by Azoarcus sp. CIB. Microorganisms, 2021, 9, 554.	3.6	10
70	Genome Sequence of Pseudomonas azelaica Strain Aramco J. Genome Announcements, 2015, 3, .	0.8	8
71	Elevated câ€diâ€GMP levels promote biofilm formation and biodesulfurization capacity of <i>Rhodococcus erythropolis</i>. Microbial Biotechnology, 2021, 14, 923-937.	4.2	8
72	Engineering a bzd cassette for the anaerobic bioconversion of aromatic compounds. Microbial Biotechnology, 2017, 10, 1418-1425.	4.2	6

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73	Expanding the current knowledge and biotechnological applications of the oxygenâ€independent <scp><i>ortho</i></scp>â€phthalate degradation pathway. Environmental Microbiology, 2020, 22, 3478-3493.	3.8	6
74	A preliminary crystallographic study of recombinant NicX, an Fe²⁺-dependent 2,5-dihydroxypyridine dioxygenase from<i>Pseudomonas putida</i>KT2440. Acta Crystallographica Section F: Structural Biology Communications, 2010, 66, 549-553.	0.7	4
75	A Novel Redox-Sensing Histidine Kinase That Controls Carbon Catabolite Repression in <i>Azoarcus</i> sp. CIB. MBio, 2019, 10, .	4.1	4
76	Genetic characterization of the cyclohexane carboxylate degradation pathway in the denitrifying bacterium <i>Aromatoleum</i> sp. <scp>CIB</scp>. Environmental Microbiology, 2022, 24, 4987-5004.	3.8	3
77	The structure of new <i>cis</i> and <i>trans</i> 3â€²â€phenylâ€3â€²,3aâ€²,4â€²,5â€²,6â€²,7aâ€²â€hexahydroâ€2,1â€benzisoxazoleâ€7aâ€²â€spiroâ€2â€(3â€phenylaziridine). Jou Chemistry, 1993, 30, 97-104.	2.6	2
78	Further Insights into the Architecture of the PN Promoter That Controls the Expression of the bzd Genes in Azoarcus. Genes, 2019, 10, 489.	2.4	2
79	Plasmids as Tools for Containment. , 0, , 589-601.		2
80	Understanding the metabolism of the tetralin degrader Sphingopyxis granuli strain TFA through genome-scale metabolic modelling. Scientific Reports, 2020, 10, 8651.	3.3	1
81	Plasmids as Tools for Containment. , 0, , 615-631.		0