Alfredo F BraÃ±a

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3965083/publications.pdf

Version: 2024-02-01

105 papers	5,240 citations	50276 46 h-index	102487 66 g-index
108 all docs	108 docs citations	108 times ranked	3608 citing authors

#	Article	IF	Citations
1	From The Cover: Combinatorial biosynthesis of antitumor indolocarbazole compounds. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 461-466.	7.1	228
2	The Biosynthetic Gene Cluster for the Antitumor Rebeccamycin. Chemistry and Biology, 2002, 9, 519-531.	6.0	198
3	Activation and identification of five clusters for secondary metabolites in <scp>S</scp>treptomyces albusâ€...<scp>J</scp>1074. Microbial Biotechnology, 2014, 7, 242-256.	4.2	190
4	Deciphering the Biosynthesis Pathway of the Antitumor Thiocoraline from a Marine Actinomycete and Its Expression in Two Streptomyces Species. ChemBioChem, 2006, 7, 366-376.	2.6	159
5	Mithramycin SK, A Novel Antitumor Drug with Improved Therapeutic Index, Mithramycin SA, and Demycarosyl-mithramycin SK:Â Three New Products Generated in the Mithramycin ProducerStreptomycesargillaceusthrough Combinatorial Biosynthesis. Journal of the American Chemical Society, 2003, 125, 5745-5753.	13.7	118
6	Deciphering the late steps in the biosynthesis of the anti-tumour indolocarbazole staurosporine: sugar donor substrate flexibility of the StaG glycosyltransferase. Molecular Microbiology, 2005, 58, 17-27.	2.5	114
7	Engineering Deoxysugar Biosynthetic Pathways from Antibiotic-Producing Microorganisms. Chemistry and Biology, 2002, 9, 721-729.	6.0	104
8	Identification and Expression of Genes Involved in Biosynthesis of <scp>l</scp> -Oleandrose and Its Intermediate <scp>l</scp> -Olivose in the Oleandomycin Producer Streptomyces antibioticus. Antimicrobial Agents and Chemotherapy, 2000, 44, 1266-1275.	3.2	103
9	Reevaluation of the Violacein Biosynthetic Pathway and its Relationship to Indolocarbazole Biosynthesis. ChemBioChem, 2006, 7, 1231-1240.	2.6	101
10	Isolation, Characterization, and Heterologous Expression of the Biosynthesis Gene Cluster for the Antitumor Anthracycline Steffimycin. Applied and Environmental Microbiology, 2006, 72, 4172-4183.	3.1	99
11	Role of substrate mycelium in colony development in Streptomyces. Canadian Journal of Microbiology, 1985, 31, 446-450.	1.7	87
12	Myxococcus xanthus induces actinorhodin overproduction and aerial mycelium formation by Streptomyces coelicolor. Microbial Biotechnology, 2011, 4, 175-183.	4.2	86
13	The Biosynthetic Gene Cluster for the Î²-Lactam Carbapenem Thienamycin in Streptomyces cattleya. Chemistry and Biology, 2003, 10, 301-311.	6.0	84
14	Identification of a sugar flexible glycosyltransferase from Streptomyces olivaceus, the producer of the antitumor polyketide elloramycin. Chemistry and Biology, 2001, 8, 253-263.	6.0	82
15	Rationally Designed Glycosylated Premithramycins:â€‰ Hybrid Aromatic Polyketides Using Genes from Three Different Biosynthetic Pathways. Journal of the American Chemical Society, 2002, 124, 6056-6062.	13.7	82
16	Biosynthesis of the Angiogenesis Inhibitor Borrelidin by Streptomyces parvulus TÃ¼4055. Chemistry and Biology, 2004, 11, 87-97.	6.0	82
17	Oxidative cleavage of premithramycin B is one of the last steps in the biosynthesis of the antitumor drug mithramycin. Chemistry and Biology, 1999, 6, 19-30.	6.0	78
18	Engineering Biosynthetic Pathways for Deoxysugars: Branched-Chain Sugar Pathways and Derivatives from the Antitumor Tetracenomycin. Chemistry and Biology, 2004, 11, 1709-1718.	6.0	73

#	Article	IF	Citations
19	Engineering precursor metabolite pools for increasing production of antitumor mithramycins in Streptomyces argillaceus. Metabolic Engineering, 2013, 20, 187-197.	7.0	73
20	A Novel Mithramycin Analogue with High Antitumor Activity and Less Toxicity Generated by Combinatorial Biosynthesis. Journal of Medicinal Chemistry, 2012, 55, 5813-5825.	6.4	71
21	Glycosylation of Macrolide Antibiotics. Journal of Biological Chemistry, 2000, 275, 11713-11720.	3.4	67
22	Biosynthesis of the angiogenesis inhibitor borrelidin by Streptomyces parvulus TÃ¼4055: insights into nitrile formationâ€. Molecular Microbiology, 2004, 52, 1745-1756.	2.5	67
23	Ammonium repression of cephalosporin production by Streptomyces clavuligerus. Canadian Journal of Microbiology, 1985, 31, 736-743.	1.7	66
24	Ketopremithramycins and Ketomithramycins, Four New Aureolic Acid-Type Compounds Obtained upon Inactivation of Two Genes Involved in the Biosynthesis of the Deoxysugar Moieties of the Antitumor Drug Mithramycin by Streptomyces Argillaceus, Reveal Novel Insights into Post-PKS Tailoring Steps of the Mithramycin Biosynthetic Pathway. Journal of the American Chemical Society, 2002, 124, 1606-1614.	13.7	66
25	Characterization of Two Polyketide Methyltransferases Involved in the Biosynthesis of the Antitumor Drug Mithramycin byStreptomyces argillaceus. Journal of Biological Chemistry, 2000, 275, 3065-3074.	3.4	65
26	Deciphering Biosynthesis of the RNA Polymerase Inhibitor Streptolydigin and Generation of Glycosylated Derivatives. Chemistry and Biology, 2009, 16, 1031-1044.	6.0	65
27	Novel Hybrid Tetracenomycins through Combinatorial Biosynthesis Using a Glycosyltransferase Encoded by the elm Genes in Cosmid 16F4 and Which Shows a Broad Sugar Substrate Specificity. Journal of the American Chemical Society, 1998, 120, 10596-10601.	13.7	64
28	Generation of New Landomycins by Combinatorial Biosynthetic Manipulation of the LndGT4 Gene of the Landomycin E Cluster in S. globisporus. Chemistry and Biology, 2004, 11, 547-555.	6.0	63
29	Evidence from engineered gene fusions for the repeated use of a module in a modular polyketide synthase. Chemical Communications, 2003, , 2780-2782.	4.1	61
30	Lobophorin K, a New Natural Product with Cytotoxic Activity Produced by Streptomyces sp. M-207 Associated with the Deep-Sea Coral Lophelia pertusa. Marine Drugs, 2017, 15, 144.	4.6	58
31	Deoxysugar Methylation during Biosynthesis of the Antitumor Polyketide Elloramycin by Streptomyces olivaceus. Journal of Biological Chemistry, 2001, 276, 18765-18774.	3.4	57
32	Combining sugar biosynthesis genes for the generation of<scp>l</scp>- and<scp>d</scp>-amicetose and formation of two novel antitumor tetracenomycins. Chemical Communications, 2005, , 1604-1606.	4.1	57
33	Generation of potent and selective kinase inhibitors by combinatorial biosynthesis of glycosylated indolocarbazoles. Chemical Communications, 2009, , 4118.	4.1	56
34	Two Streptomyces Species Producing Antibiotic, Antitumor, and Anti-Inflammatory Compounds Are Widespread Among Intertidal Macroalgae and Deep-Sea Coral Reef Invertebrates from the Central Cantabrian Sea. Microbial Ecology, 2015, 69, 512-524.	2.8	56
35	Characterization of two glycosyltransferases involved in early glycosylation steps during biosynthesis of the antitumor polyketide mithramycin by Streptomyces argillaceus. Molecular Genetics and Genomics, 2000, 262, 991-1000.	2.4	55
36	Analysis of two chromosomal regions adjacent to genes for a type II polyketide synthase involved in the biosynthesis of the antitumor polyketide mithramycin in Streptomyces argillaceus. Molecular Genetics and Genomics, 1999, 261, 216-225.	2.4	53

#	Article	IF	Citations
37	Mithramycin Analogues Generated by Combinatorial Biosynthesis Show Improved Bioactivity. Journal of Natural Products, 2008, 71, 199-207.	3.0	53
38	Genome Mining of Streptomyces sp. TÃ¼ 6176: Characterization of the Nataxazole Biosynthesis Pathway. ChemBioChem, 2015, 16, 1461-1473.	2.6	53
39	Genetic Organization of the Biosynthetic Gene Cluster for the Antitumor Angucycline Oviedomycin in Streptomyces antibioticus ATCC 11891. ChemBioChem, 2004, 5, 1181-1187.	2.6	51
40	Uncovering production of specialized metabolites by Streptomyces argillaceus: Activation of cryptic biosynthesis gene clusters using nutritional and genetic approaches. PLoS ONE, 2018, 13, e0198145.	2.5	51
41	Digitoxosyltetracenomycin C and Glucosyltetracenomycin C, Two Novel Elloramycin Analogues Obtained by Exploring the Sugar Donor Substrate Specificity of Glycosyltransferase ElmGT. Journal of Natural Products, 2002, 65, 1685-1689.	3.0	50
42	Biosynthesis of the Antitumor Chromomycin A3 in Streptomyces griseus. Chemistry and Biology, 2004, 11, 21-32.	6.0	50
43	Caboxamycin biosynthesis pathway and identification of novel benzoxazoles produced by crossâ€talk in Streptomyces sp. <scp>NTK</scp> 937. Microbial Biotechnology, 2017, 10, 873-885.	4.2	49
44	Production of landomycins inStreptomyces globisporus1912 andS. cyanogenusS136 is regulated by genes encoding putative transcriptional activators. FEMS Microbiology Letters, 2003, 222, 149-153.	1.8	48
45	Deoxysugar Transfer during Chromomycin A 3 Biosynthesis in Streptomyces griseus subsp. griseus : New Derivatives with Antitumor Activity. Applied and Environmental Microbiology, 2006, 72, 167-177.	3.1	48
46	The mtmVUC genes of the mithramycin gene cluster in Streptomycesargillaceus are involved in the biosynthesis of the sugar moieties. Molecular Genetics and Genomics, 2001, 264, 827-835.	2.1	47
47	Functional Analysis of OleY I -Oleandrosyl 3- O -Methyltransferase of the Oleandomycin Biosynthetic Pathway in Streptomyces antibioticus. Journal of Bacteriology, 2001, 183, 5358-5363.	2.2	47
48	Generation of New Derivatives of the Antitumor Antibiotic Mithramycin by Altering the Glycosylation Pattern through Combinatorial Biosynthesis. ChemBioChem, 2008, 9, 2295-2304.	2.6	47
49	Combinatorial Biosynthesis of Antitumor Deoxysugar Pathways in Streptomyces griseus: Reconstitution of â€œUnnatural Natural Gene Clustersâ€•for the Biosynthesis of Four 2,6-d-Dideoxyhexoses. Applied and Environmental Microbiology, 2006, 72, 6644-6652.	3.1	46
50	Identification of transcriptional activators for thienamycin and cephamycin C biosynthetic genes within the thienamycin gene cluster from Streptomyces cattleya. Molecular Microbiology, 2008, 69, 633-645.	2.5	46
51	Elucidating the Biosynthetic Pathway for the Polyketide-Nonribosomal Peptide Collismycin A: Mechanism for Formation of the 2,2â€²-bipyridyl Ring. Chemistry and Biology, 2012, 19, 399-413.	6.0	46
52	Branimycins B and C, Antibiotics Produced by the Abyssal Actinobacterium Pseudonocardia carboxydivorans M-227. Journal of Natural Products, 2017, 80, 569-573.	3.0	46
53	Tailoring modification of deoxysugars during biosynthesis of the antitumour drug chromomycin A3 by Streptomyces griseus ssp. griseus. Molecular Microbiology, 2004, 53, 903-915.	2.5	44
54	Regulation of extracellular protease production in Streptomyces clavuligerus. Applied Microbiology and Biotechnology, 1990, 34, 208-213.	3.6	43

#	Article	IF	Citations
55	Biosynthesis of elloramycin in Streptomyces olivaceus requires glycosylation by enzymes encoded outside the aglycon cluster. Microbiology (United Kingdom), 2008, 154, 781-788.	1.8	42
56	Paulomycin G, a New Natural Product with Cytotoxic Activity against Tumor Cell Lines Produced by Deep-Sea Sediment Derived Micromonospora matsumotoense M-412 from the AvilÃ©s Canyon in the Cantabrian Sea. Marine Drugs, 2017, 15, 271.	4.6	42
57	Glycosylated Derivatives of Steffimycin: Insights into the Role of the Sugar Moieties for the Biological Activity. ChemBioChem, 2008, 9, 624-633.	2.6	39
58	Biosynthesis of the Antitumor Chromomycin A3 in Streptomyces griseusAnalysis of the Gene Cluster and Rational Design of Novel Chromomycin Analogs. Chemistry and Biology, 2004, 11, 21-32.	6.0	38
59	Biosynthesis of the angiogenesis inhibitor borrelidin: directed biosynthesis of novel analogues. Chemical Communications, 2006, , 2341-2343.	4.1	38
60	Carbon source regulation of cephem antibiotic production by resting cells of Streptomyces clavuligerus and its reversal by protein synthesis inhibitors. Enzyme and Microbial Technology, 1984, 6, 155-160.	3.2	37
61	Oviedomycin, an Unusual Angucyclinone Encoded by Genes of the Oleandomycin-Producer Streptomyces antibioticus ATCC11891. Journal of Natural Products, 2002, 65, 779-782.	3.0	35
62	Involvement of a chromomycin ABC transporter system in secretion of a deacetylated precursor during chromomycin biosynthesis. Microbiology (United Kingdom), 2007, 153, 3061-3070.	1.8	35
63	Engineering the Biosynthesis of the Polyketide-Nonribosomal Peptide Collismycin A for Generation of Analogs with Neuroprotective Activity. Chemistry and Biology, 2013, 20, 1022-1032.	6.0	35
64	Desertomycin G, a New Antibiotic with Activity against Mycobacterium tuberculosis and Human Breast Tumor Cell Lines Produced by Streptomyces althioticus MSM3, Isolated from the Cantabrian Sea Intertidal Macroalgae Ulva sp.. Marine Drugs, 2019, 17, 114.	4.6	35
65	Identification by Genome Mining of a Type I Polyketide Gene Cluster from Streptomyces argillaceus Involved in the Biosynthesis of Pyridine and Piperidine Alkaloids Argimycins P. Frontiers in Microbiology, 2017, 8, 194.	3.5	34
66	Pharmacological Potential of Phylogenetically Diverse Actinobacteria Isolated from Deep-Sea Coral Ecosystems of the Submarine AvilÃ©s Canyon in the Cantabrian Sea. Microbial Ecology, 2017, 73, 338-352.	2.8	33
67	Relationship between nitrogen assimilation and cephalosporin synthesis inStreptomyces clavuligerus. Archives of Microbiology, 1986, 146, 46-51.	2.2	32
68	Elucidation of Oxygenation Steps during Oviedomycin Biosynthesis and Generation of Derivatives with Increased Antitumor Activity. ChemBioChem, 2009, 10, 296-303.	2.6	32
69	Activation and silencing of secondary metabolites in Streptomyces albus and Streptomyces lividans after transformation with cosmids containing the thienamycin gene cluster from Streptomyces cattleya. Archives of Microbiology, 2014, 196, 345-355.	2.2	31
70	Characterization and engineering of the biosynthesis gene cluster for antitumor macrolides PM100117 and PM100118 from a marine actinobacteria: generation of a novel improved derivative. Microbial Cell Factories, 2016, 15, 44.	4.0	30
71	Purification and Characterization of a Monooxygenase Involved in the Biosynthetic Pathway of the Antitumor Drug Mithramycin. Journal of Bacteriology, 2003, 185, 3962-3965.	2.2	28
72	Independent and Interactive Association of Blood Antioxidants and Oxidative Damage in Elderly People. Free Radical Research, 2002, 36, 875-882.	3.3	27

#	Article	IF	Citations
73	The chromomycin CmmA acetyltransferase: a membraneâ€bound enzyme as a tool for increasing structural diversity of the antitumour mithramycin. Microbial Biotechnology, 2011, 4, 226-238.	4.2	27
74	New insights into paulomycin biosynthesis pathway in Streptomyces albus J1074 and generation of novel derivatives by combinatorial biosynthesis. Microbial Cell Factories, 2016, 15, 56.	4.0	27
75	Insights in the glycosylation steps during biosynthesis of the antitumor anthracycline cosmomycin: characterization of two glycosyltransferase genes. Applied Microbiology and Biotechnology, 2006, 73, 122-131.	3.6	26
76	The structures of premithramycinone and demethylpremithramycinone, plausible early intermediates of the aureolic acid group antibiotic mithramycin. Chemical Communications, 1998, , 437-438.	4.1	25
77	The Novel Hybrid Antitumor Compound Premithramycinone H Provides Indirect Evidence for a Tricyclic Intermediate of the Biosynthesis of the Aureolic Acid Antibiotic Mithramycin. Angewandte Chemie - International Edition, 2000, 39, 796-799.	13.8	25
78	DNA-Binding Properties of Cosmomycin D, an Anthracycline with Two Trisaccharide Chains. Journal of Antibiotics, 2004, 57, 647-654.	2.0	25
79	Atmospheric Dispersal of Bioactive Streptomyces albidoflavus Strains Among Terrestrial and Marine Environments. Microbial Ecology, 2016, 71, 375-386.	2.8	25
80	Searching for Glycosylated Natural Products in Actinomycetes and Identification of Novel Macrolactams and Angucyclines. Frontiers in Microbiology, 2018, 9, 39.	3.5	25
81	Biosynthesis of the RNA Polymerase Inhibitor Streptolydigin in Streptomyces lydicus: Tailoring Modification of 3-Methyl-Aspartate. Journal of Bacteriology, 2011, 193, 2647-2651.	2.2	24
82	Transcriptional regulation of mithramycin biosynthesis in Streptomyces argillaceus: dual role as activator and repressor of the PadR-like regulator MtrY. Microbiology (United Kingdom), 2015, 161, 272-284.	1.8	24
83	Amino Acid Precursor Supply in the Biosynthesis of the RNA Polymerase Inhibitor Streptolydigin by Streptomyces lydicus. Journal of Bacteriology, 2011, 193, 4214-4223.	2.2	23
84	Myceligenerans cantabricum sp. nov., a barotolerant actinobacterium isolated from a deep cold-water coral. International Journal of Systematic and Evolutionary Microbiology, 2015, 65, 1328-1334.	1.7	23
85	New Insights into the Biosynthesis Pathway of Polyketide Alkaloid Argimycins P in Streptomyces argillaceus. Frontiers in Microbiology, 2018, 9, 252.	3.5	23
86	Characterization of intracellular polysaccharides of Streptomyces. Canadian Journal of Microbiology, 1982, 28, 1320-1323.	1.7	22
87	Mode of cell wall growth of Streptomyces antibioticus. FEMS Microbiology Letters, 1982, 13, 231-235.	1.8	22
88	Atmospheric Precipitations, Hailstone and Rainwater, as a Novel Source of Streptomyces Producing Bioactive Natural Products. Frontiers in Microbiology, 2018, 9, 773.	3.5	21
89	Mutational Analysis of the Thienamycin Biosynthetic Gene Cluster from Streptomyces cattleya. Antimicrobial Agents and Chemotherapy, 2011, 55, 1638-1649.	3.2	17
90	Novel compounds produced by Streptomyces lydicus NRRL 2433 engineered mutants altered in the biosynthesis of streptolydigin. Journal of Antibiotics, 2012, 65, 341-348.	2.0	17

#	Article	IF	Citations
91	Crosstalk of Nataxazole Pathway with Chorismateâ€Derived Ionophore Biosynthesis Pathways in Streptomyces sp. TÃ¼ 6176. ChemBioChem, 2015, 16, 1925-1932.	2.6	17
92	Expression of the endogenous and heterologous clavulanic acid cluster in Streptomyces flavogriseus: why a silent cluster is sleeping. Applied Microbiology and Biotechnology, 2013, 97, 9451-9463.	3.6	16
93	Laccase-catalysed biotransformation of collismycin derivatives. A novel enzymatic approach for the cleavage of oximes. Green Chemistry, 2016, 18, 989-994.	9.0	16
94	Elucidation of the glycosylation steps during biosynthesis of antitumor macrolides PM100117 and PM100118 and engineering for novel derivatives. Microbial Cell Factories, 2016, 15, 187.	4.0	15
95	Modulation of Deoxysugar Transfer by the Elloramycin Glycosyltransferase ElmGT through Site-Directed Mutagenesis. Journal of Bacteriology, 2009, 191, 2871-2875.	2.2	14
96	Increasing antibiotic production yields by favoring the biosynthesis of precursor metabolites glucose-1-phosphate and/or malonyl-CoA in Streptomyces producer strains. Journal of Antibiotics, 2016, 69, 179-182.	2.0	13
97	Characterization of the Jomthonic Acids Biosynthesis Pathway and Isolation of Novel Analogues in Streptomyces caniferus GUA-06-05-006A. Marine Drugs, 2018, 16, 259.	4.6	10
98	Generation by mutasynthesis of potential neuroprotectant derivatives of the bipyridyl collismycin A. Bioorganic and Medicinal Chemistry Letters, 2013, 23, 5707-5709.	2.2	8
99	dltA gene mutation in the teichoic acids alanylation system of Lactococcus garvieae results in diminished proliferation in its natural host. Veterinary Microbiology, 2010, 143, 434-439.	1.9	7
100	Regioselective Enzymatic Acylation of Aureolic Acids to Obtain Novel Analogues with Improved Antitumor Activity. Advanced Synthesis and Catalysis, 2012, 354, 1500-1508.	4.3	6
101	High level of antibiotic production in a double polyphosphate kinase and phosphate-binding protein mutant ofStreptomyces lividans. FEMS Microbiology Letters, 2013, 342, 123-129.	1.8	6
102	Cytochemical and enzymatic characterization of the sporulation septum of Streptomyces antibioticus. Canadian Journal of Microbiology, 1981, 27, 1060-1065.	1.7	5
103	Characterization of the Terminal Activation Step Catalyzed by Oxygenase CmmOIV of the Chromomycin Biosynthetic Pathway fromStreptomyces griseus. Biochemistry, 2011, 50, 1421-1428.	2.5	4
104	Lipase-catalyzed preparation of chromomycin A3 analogues and biological evaluation for anticancer activity. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 4310-4313.	2.2	1
105	Towards the Generation of Novel Antitumour Agents from Actinomycetes by Combinational Biosynthesis. Focus on Biotechnology, 2001, , 383-399.	0.4	0