David A Hopwood

List of Publications by Year
in descending order

107 papers	9,961 citations	34105 52 h-index	36028 97 g-index
108 all docs	108 docs citations	108 times ranked	4064 citing authors

#	Article	IF	Citations
1	Molecular Genetics of Polyketides and its Comparison to Fatty Acid Biosynthesis. Annual Review of Genetics, 1990, 24, 37-62.	7.6	688
2	Genetic Contributions to Understanding Polyketide Synthases. Chemical Reviews, 1997, 97, 2465-2498.	47.7	684
3	Synergy and contingency as driving forces for the evolution of multiple secondary metabolite production by Streptomyces species. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 14555-14561.	7.1	532
4	pIJ101, a multi-copy broad host-range Streptomyces plasmid: Functional analysis and development of DNA cloning vectors. Molecular Genetics and Genomics, 1982, 185, 223-238.	2.4	405
5	Feast or famine: the global regulator DasR links nutrient stress to antibiotic production by Streptomyces. EMBO Reports, 2008, 9, 670-675.	4.5	358
6	The act cluster contains regulatory and antibiotic export genes, direct targets for translational control by the bldA tRNA gene of streptomyces. Cell, 1991, 66, 769-780.	28.9	353
7	Transformation of plasmid DNA into Streptomyces at high frequency. Nature, 1978, 274, 398-400.	27.8	306
8	Rational design of aromatic polyketide natural products by recombinant assembly of enzymatic subunits. Nature, 1995, 375, 549-554.	27.8	286
9	The chromosomal DNA of Streptomyces lividans 66 is linear. Molecular Microbiology, 1993, 10, 923-933.	2.5	279
10	Forty years of genetics with Streptomyces: from in vivo through in vitro to in silico. Microbiology (United Kingdom), 1999, 145, 2183-2202.	1.8	225
11	Physical and genetical characterisation of a second sex factor, SCP2, for Streptomyces coelicolor A3(2). Molecular Genetics and Genomics, 1977, 154, 155-166.	2.4	222
12	Genetic recombination through protoplast fusion in Streptomyces. Nature, 1977, 268, 171-174.	27.8	206
13	Nucleotide sequence, transcription and deduced function of a gene involved in polyketide antibiotic synthesis in Streptomyces coelicolor. Gene, 1988, 74, 305-320.	2.2	192
14	The sugar phosphotransferase system of Streptomyces coelicolor is regulated by the GntRâ€family regulator DasR and links Nâ€acetylglucosamine metabolism to the control of development. Molecular Microbiology, 2006, 61, 1237-1251.	2.5	188
15	Physical and genetic characterisation of the gene cluster for the antibiotic actinorhodin inStreptomyces coelicolor A3(2). Molecular Genetics and Genomics, 1986, 205, 66-73.	2.4	186
16	Soil To Genomics: TheStreptomycesChromosome. Annual Review of Genetics, 2006, 40, 1-23.	7.6	180
17	How do antibioticâ€producing bacteria ensure their selfâ€resistance before antibiotic biosynthesis incapacitates them?. Molecular Microbiology, 2007, 63, 937-940.	2.5	159
18	Cloning and characterization of a gene cluster from Streptomyces cyanogenus S136 probably involved in landomycin biosynthesis. FEMS Microbiology Letters, 1999, 170, 381-387.	1.8	152

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19	Solution Structure of the Actinorhodin Polyketide Synthase Acyl Carrier Protein fromStreptomyces coelicolorA3(2)â€,â€¡. Biochemistry, 1997, 36, 6000-6008.	2.5	147
20	The granaticin biosynthetic gene cluster of Streptomyces violaceoruber TÃ¼22: sequence analysis and expression in a heterologous host. Chemistry and Biology, 1998, 5, 647-659.	6.0	141
21	Excision of chromosomal DNA sequences from Streptomyces coelicolor forms a novel family of plasmids detectable in Streptomyces lividans. Molecular Genetics and Genomics, 1981, 184, 230-240.	2.4	135
22	Site-specific degradation ofStreptomyces lividansDNA during electrophoresis in buffers contaminated with ferrous iron. Nucleic Acids Research, 1988, 16, 4341-4352.	14.5	130
23	Engineered Biosynthesis of Novel Polyketides: Dissection of the Catalytic Specificity of the act Ketoreductase. Journal of the American Chemical Society, 1994, 116, 4166-4170.	13.7	125
24	Cloning, sequencing and deduced functions of a cluster of Streptomyces genes probably encoding biosynthesis of the polyketide antibiotic frenolicin. Gene, 1994, 142, 31-39.	2.2	119
25	The Fine Structure of Streptomyces coelicolor. Journal of Cell Biology, 1960, 7, 479-487.	5.2	118
26	Bacterial protoplast fusion: Recombination in fused protoplasts of Streptomyces coelicolor. Molecular Genetics and Genomics, 1978, 162, 307-317.	2.4	117
27	Organisation and functions of the actV A region of the actinorhodin biosynthetic gene cluster of Streptomyces coelicolor. Molecular Genetics and Genomics, 1991, 230, 401-412.	2.4	101
28	Cloning of a Streptomyces gene for an O-methyltransferase involved in antibiotic biosynthesis. Molecular Genetics and Genomics, 1983, 190, 394-398.	2.4	98
29	Engineered biosynthesis of novel polyketides: manipulation and analysis of an aromatic polyketide synthase with unproven catalytic specificities. Journal of the American Chemical Society, 1993, 115, 11671-11675.	13.7	95
30	Engineered Biosynthesis of Novel Polyketides: actVII and actIV Genes Encode Aromatase and Cyclase Enzymes, Respectively. Journal of the American Chemical Society, 1994, 116, 10855-10859.	13.7	95
31	Engineered Biosynthesis of Novel Polyketides fromStreptomycesSpore Pigment Polyketide Synthases. Journal of the American Chemical Society, 1998, 120, 7749-7759.	13.7	92
32	The conjugative plasmid SLP2 of Streptomyces lividans is a 50 kb linear molecule. Molecular Microbiology, 1993, 7, 925-932.	2.5	90
33	Studies on the mechanism of repression of arginine biosynthesis in Escherichia coli. Journal of Molecular Biology, 1968, 35, 83-93.	4.2	88
34	THE FINE STRUCTURE OF STREPTOMYCES VIOLACEORUBER (S. COELICOLOR). Journal of Cell Biology, 1961, 10, 505-516.	5.2	84
35	Integrated DNA sequences in three streptomycetes form related autonomous plasmids after transfer to Streptomyces lividans. Plasmid, 1984, 11, 1-16.	1.4	79
36	Cloning and expression of a puromycin N-acetyl transferase gene from Streptomyces alboniger in Streptomyces lividans and Escherichia coli. Gene, 1985, 33, 197-206.	2.2	79

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37	Targeted gene replacements in a Streptomyces polyketide synthase gene cluster: role for the acyl carrier protein. Molecular Microbiology, 1992, 6, 3237-3249.	2.5	79
38	Biosynthesis of the antibiotic actinorhodin. Analysis of blocked mutants of Streptomyces coelicolor.. Journal of Antibiotics, 1987, 40, 340-347.	2.0	78
39	[21] Genetic manipulation of Streptomyces: Integrating vectors and gene replacement. Methods in Enzymology, 1991, 204, 430-458.	1.0	76
40	[9] Plasmid and phage vectors for gene cloning and analysis in Streptomyces. Methods in Enzymology, 1987, 153, 116-166.	1.0	74
41	Engineered biosynthesis of novel polyketides: evidence for temporal, but not regiospecific, control of cyclization of an aromatic polyketide precursor. Chemistry and Biology, 1994, 1, 205-210.	6.0	72
42	Identification of a Flavin:NADH Oxidoreductase Involved in the Biosynthesis of Actinorhodin. Journal of Biological Chemistry, 1995, 270, 17339-17343.	3.4	71
43	Î²-Ketoacyl Acyl Carrier Protein Synthase III (FabH) Is Essential for Fatty Acid Biosynthesis in Streptomyces coelicolor A3(2). Journal of Bacteriology, 2001, 183, 3526-3530.	2.2	69
44	Genome plasticity in Streptomyces: identification of 1â€ƒMb TIRs in the S. coelicolor A3(2) chromosome. Molecular Microbiology, 2004, 51, 1535-1550.	2.5	67
45	Engineered biosynthesis of novel polyketides: Stereochemical course of two reactions catalyzed by a polyketide synthase. Biochemistry, 1994, 33, 9321-9326.	2.5	64
46	THE FINE STRUCTURE OF Streptomyces coelicolor. Journal of Cell Biology, 1960, 8, 267-278.	5.2	62
47	Chemical Characterisation of Disruptants of the Streptomyces coelicolor A3(2). ActVI Genes Involved in Actinorhodin Biosynthesis.. Journal of Antibiotics, 2000, 53, 144-152.	2.0	61
48	Repeated polyketide synthase modules involved in the biosynthesis of a heptaene macrolide by Streptomyces sp. FR-008. Molecular Microbiology, 1994, 14, 163-172.	2.5	59
49	Physical identification of a chromosomal locus encoding biosynthetic genes for the lipopeptide calcium-dependent antibiotic (CDA) of Streptomyces coelicolor A3(2). Microbiology (United Kingdom), 1998, 144, 193-199.	1.8	58
50	Polyketide synthase acyl carrier proteins from Streptomyces: expression in Escherichia coli, purification and partial characterisation. BBA - Proteins and Proteomics, 1995, 1251, 32-42.	2.1	57
51	Rational Design and Engineered Biosynthesis of a Novel 18-Carbon Aromatic Polyketide. Journal of the American Chemical Society, 1997, 119, 635-639.	13.7	56
52	â€œStrong incompatibilityâ€•between derivatives of the Streptomyces multi-copy plasmid pIJ101. Molecular Genetics and Genomics, 1988, 214, 286-294.	2.4	55
53	THE FINE STRUCTURE OF THE NUCLEAR MATERIAL OF A BLUE-GREEN ALGA, ANABAENA CYLINDRICA LEMM. Journal of Cell Biology, 1960, 8, 813-823.	5.2	54
54	Activity of aStreptomucestranscriptional terminator inEscherichia coli. Nucleic Acids Research, 1987, 15, 2665-2675.	14.5	53

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55	afsB stimulates transcription of the actinorhodin biosynthetic pathway in Streptomyces coelicolor A3(2) and Streptomyces lividans. Molecular Genetics and Genomics, 1989, 215, 355-357.	2.4	52
56	Transcriptional organization and regulation of an antibiotic export complex in the producing Streptomyces culture. Molecular Genetics and Genomics, 1991, 228, 372-380.	2.4	52
57	Relaxed Specificity of the Oxytetracycline Polyketide Synthase for an Acetate Primer in the Absence of a Malonamyl Primer. Journal of the American Chemical Society, 1994, 116, 6443-6444.	13.7	52
58	Sequences of the oxytetracycline polyketide synthase-encoding otc genes from Streptomyces rimosus. Gene, 1994, 141, 141-142.	2.2	50
59	A 2.6 kb DNA sequence of Streptomyces coelicolor A3(2) which functions as a transposable element. Molecular Genetics and Genomics, 1986, 203, 79-88.	2.4	47
60	Proof that the actVI genetic region of Streptomyces coelicolor A3(2) is involved in stereospecific pyran ring formation in the biosynthesis of actinorhodin. Bioorganic and Medicinal Chemistry Letters, 1999, 9, 395-400.	2.2	47
61	Therapeutic treasures from the deep. Nature Chemical Biology, 2007, 3, 457-458.	8.0	44
62	A NEW KIND OF FERTILITY VARIANT IN STREPTOMYCES COELICOLOR . Genetics, 1969, 62, 461-477.	2.9	44
63	Cloning Streptomyces genes for antibiotic production. Trends in Biotechnology, 1983, 1, 42-48.	9.3	43
64	Molecular genetic analysis reveals a putative bifunctional polyketide cyclase/dehydrase gene from Streptomycea coelicolor and Streptomyces violoceoruber, and a cyclase/O-methyltransferase from Streptomyces glaucescens.. Tetrahedron, 1991, 47, 6029-6043.	1.9	42
65	Characterisation of actI-homologous DNA encoding polyketide synthase genes from the monensin producer Streptomyces cinnamonensis. Molecular Genetics and Genomics, 1992, 234, 254-264.	2.4	42
66	Engineered Biosynthesis of Novel Polyketides: Properties of the whiE Aromatase/Cyclase. Nature Biotechnology, 1996, 14, 335-338.	17.5	40
67	Cloning of large DNA fragments, which hybridize with actinorhodin biosynthesis genes, from kalafungin and nanaomycin a methyl ester producers and identification of genes for kalafungin biosynthesis of the kalafungin producer.. Journal of Antibiotics, 1991, 44, 995-1005.	2.0	37
68	A circular linkage map in the actinomycete Streptomyces coelicolor. Journal of Molecular Biology, 1965, 12, 514-516.	4.2	36
69	Genetic engineering of Streptomyces to create hybrid antibiotics. Current Opinion in Biotechnology, 1993, 4, 531-537.	6.6	33
70	A New Mode of Stereochemical Control Revealed by Analysis of the Biosynthesis of Dihydrogranaticin inStreptomycesviolaceoruberTÃ¼422. Journal of the American Chemical Society, 2001, 123, 11376-11380.	13.7	31
71	Highlights of Streptomyces genetics. Heredity, 2019, 123, 23-32.	2.6	30
72	New data on the linkage map ofStreptomyces coelicolor. Genetical Research, 1965, 6, 248-262.	0.9	29

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73	Developments in Streptomyces Cloning. , 1983, , 53-82.		28
74	The Streptomyces genomeâ€"be prepared!. Nature Biotechnology, 2003, 21, 505-506.	17.5	27
75	Functional Complementation of Pyran Ring Formation in Actinorhodin Biosynthesis in Streptomyces coelicolor A3(2) by Ketoreductase Genes for Granaticin Biosynthesis. Journal of Bacteriology, 2001, 183, 3247-3250.	2.2	26
76	Enhanced heterologous polyketide production in Streptomyces by exploiting plasmid co-integration. Journal of Industrial Microbiology and Biotechnology, 2003, 30, 516-522.	3.0	26
77	Expression of a Streptomyces plasmid promoter in Escherichia coli. Gene, 1986, 43, 295-300.	2.2	25
78	Genes for Polyketide Secondary Metabolic Pathways in Microorganisms and Plants. Novartis Foundation Symposium, 1992, 171, 88-112.	1.1	24
79	Biosynthetic Gene Clusters of Benzoisochromanequinone Antibiotics in Streptomyces spp. Identification of Genes Involved in Post-PKS Tailoring Steps.. Nihon Hosenkin Gakkai Shi = Actinomycetologica, 1998, 12, 99-109.	0.3	23
80	Ultraviolet-sensitive mutants of Streptomyces coelicolor I. Phenotypic characterisation. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 1970, 10, 427-438.	1.0	22
81	Genetic Engineering ofStreptomyces coelicolor A3(2) for the Enantioselective Reduction of UnnaturalÎ²-Keto-Ester Substrates. Angewandte Chemie - International Edition, 2000, 39, 224-227.	13.8	22
82	Chapter VI The Isolation of Mutants. Methods in Microbiology, 1970, , 363-433.	0.8	21
83	Mutation and cloning of clustered Streptomyces genes essential for sulphate metabolism. Molecular Genetics and Genomics, 1988, 211, 415-423.	2.4	21
84	A mutation of Streptomyces lividans which prevents intraplasmid recombination has no effect on chromosomal recombination. Molecular Genetics and Genomics, 1989, 220, 60-64.	2.4	20
85	Conserved secondary structure in the actinorhodin polyketide synthase acyl carrier protein from Streptomyces coelicolor A3(2) and the fatty acid synthase acyl carrier protein from Escherichia coli. FEBS Letters, 1996, 391, 302-306.	2.8	20
86	Heterologously expressed acyl carrier protein domain of rat fatty acid synthase functions in Escherichia coli fatty acid synthase and Streptomyces coelicolor polyketide synthase systems. Chemistry and Biology, 1998, 5, 135-146.	6.0	20
87	Cracking the Polyketide Code. PLoS Biology, 2004, 2, e35.	5.6	18
88	OBSERVATIONS ON THE CHROMATINIC BODIES OF Streptomyces coelicolor. Journal of Cell Biology, 1960, 8, 257-265.	5.2	16
89	Ultraviolet-sensitive mutants of Streptomyces coelicolor II. Genetics. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 1970, 10, 439-448.	1.0	16
90	Transposition of IS 117, the 2.5 kb Streptomyces coelicolor A3(2) 'minicircle': roles of open reading frames and origin of tandem insertions. Molecular Microbiology, 1994, 12, 459-468.	2.5	15

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91	Directed Transfer of Large DNA Fragments between Streptomyces Species. Applied and Environmental Microbiology, 2000, 66, 2274-2277.	3.1	15
92	Identification of a novel shunt product produced by a disruptant of the actVI-ORFA gene involved in the biosynthesis of actinorhodin in Streptomyces coelicolor A3(2). Tetrahedron Letters, 2000, 41, 5253-5256.	1.4	14
93	Imaging Mass Spectrometry Reveals Highly Specific Interactions between Actinomycetes To Activate Specialized Metabolic Gene Clusters. MBio, 2013, 4, e00612-13.	4.1	13
94	Streptomyces genes: from Waksman to Sanger. Journal of Industrial Microbiology and Biotechnology, 2003, 30, 468-471.	3.0	12
95	Chapter II Genetic Analysis in Micro-organisms. Methods in Microbiology, 1972, , 29-158.	0.8	11
96	Production of the New Antibiotic Tetrahydrokalafungin by Transformants of the Kalafungin Producer Streptomyces tanashiensis.. Journal of Antibiotics, 1995, 48, 484-487.	2.0	10
97	A rapid method for complementation testing of Ultraviolet-Sensitive (UVS) mutants of Streptomyces coelicolor. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 1972, 16, 27-34.	1.0	9
98	Enantioselective Reduction of Î²â€Keto Acids with Engineered Streptomyces coelicolor. Angewandte Chemie - International Edition, 2005, 44, 1121-1125.	13.8	8
99	Analysis of secondary, integration sites for IS117 in Streptomyces lividans and their role in the generation of chromosomal deletions. Molecular Genetics and Genomics, 1993, 239, 90-96.	2.4	6
100	Streptomyces coelicolor. , 1974, , 237-255.		6
101	Biosynthesis of Methylenomycin A: A Plasmid-Determined Antibiotic. , 1981, , 123-131.		6
102	The Chromosome Map of Streptomyces coelicolor A3(2). , 0, , 497-504.		5
103	Genetic manipulation ofStreptomycespolyketide synthase genes for novel secondary metabolite production. FEMS Microbiology Reviews, 1995, 16, 233-234.	8.6	1
104	Enantioselective Reduction of Î²â€Keto Acids with Engineered Streptomyces coelicolor. Angewandte Chemie, 2005, 117, 1145-1149.	2.0	1
105	Gene cloning in non-enteric bacteria. Trends in Biochemical Sciences, 1982, 7, 445-447.	7.5	0
106	ACTINOMYCETE GENETICS AND ANTIBIOTICS. , 1981, , 127-142.		0
107	A Love Affair with Streptomyces Genetics. , 0, , 243-250.		0