

Tohru Dairi

List of Publications by Year in descending order

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104
papers

3,813
citations

109264

35
h-index

143943

57
g-index

108
all docs

108
docs citations

108
times ranked

3148
citing authors

#	ARTICLE	IF	CITATIONS
1	An Alternative Menaquinone Biosynthetic Pathway Operating in Microorganisms. <i>Science</i> , 2008, 321, 1670-1673.	6.0	233
2	Fusicoccins are biosynthesized by an unusual chimera diterpene synthase in fungi. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 3084-3088.	3.3	177
3	Reconstitution of Biosynthetic Machinery for Indole-Diterpene Paxilline in <i>Aspergillus oryzae</i> . <i>Journal of the American Chemical Society</i> , 2013, 135, 1260-1263.	6.6	170
4	Cloning and Nucleotide Sequence of the Gene Responsible for Chlorination of Tetracycline. <i>Bioscience, Biotechnology and Biochemistry</i> , 1995, 59, 1099-1106.	0.6	119
5	Formation of 4-(cytidine 5'-diphospho)-2-C-methyl-d-erythritol from 2-C-methyl-d-erythritol 4-phosphate by 2-C-methyl-d-erythritol 4-phosphate cytidyltransferase, a new enzyme in the nonmevalonate pathway. <i>Tetrahedron Letters</i> , 2000, 41, 703-706.	0.7	119
6	Studies on the nonmevalonate pathway: conversion of 4-(cytidine 5'-diphospho)-2-C-methyl-d-erythritol to its 2-phospho derivative by 4-(cytidine 5'-diphospho)-2-C-methyl-d-erythritol kinase. <i>Tetrahedron Letters</i> , 2000, 41, 2925-2928.	0.7	107
7	Studies on the nonmevalonate pathway: formation of 2-C-methyl-d-erythritol 2,4-cyclodiphosphate from 2-phospho-4-(cytidine 5'-diphospho)-2-C-methyl-d-erythritol. <i>Tetrahedron Letters</i> , 2000, 41, 3395-3398.	0.7	98
8	Menaquinone Biosynthesis: Formation of Aminofutalosine Requires a Unique Radical SAM Enzyme. <i>Journal of the American Chemical Society</i> , 2013, 135, 15318-15321.	6.6	94
9	Eubacterial Diterpene Cyclase Genes Essential for Production of the Isoprenoid Antibiotic Terpentecin. <i>Journal of Bacteriology</i> , 2001, 183, 6085-6094.	1.0	84
10	Functional Analysis of Eubacterial Diterpene Cyclases Responsible for Biosynthesis of a Diterpene Antibiotic, Terpentecin. <i>Journal of Biological Chemistry</i> , 2002, 277, 37098-37104.	1.6	82
11	Reveromycin A biosynthesis uses RevG and RevJ for stereospecific spiroacetal formation. <i>Nature Chemical Biology</i> , 2011, 7, 461-468.	3.9	80
12	Biosynthetic Gene-Based Secondary Metabolite Screening: A New Diterpene, Methyl Phomopsenonate, from the Fungus <i>Phomopsis amygdali</i> . <i>Journal of Organic Chemistry</i> , 2009, 74, 1541-1548.	1.7	78
13	Gene cloning, biochemical characterization and physiological role of a thermostable low-specificity L-threonine aldolase from <i>Escherichia coli</i> . <i>FEBS Journal</i> , 1998, 255, 220-226.	0.2	76
14	Biosynthesis of a Natural Polyketide-Isoprenoid Hybrid Compound, Furaquinocin A: Identification and Heterologous Expression of the Gene Cluster. <i>Journal of Bacteriology</i> , 2006, 188, 1236-1244.	1.0	76
15	Rapid Reconstitution of Biosynthetic Machinery for Fungal Metabolites in <i>Aspergillus oryzae</i> : Total Biosynthesis of Aflatrem. <i>ChemBioChem</i> , 2014, 15, 2076-2080.	1.3	76
16	<i>Mycobacterium tuberculosis</i> H37Rv3377c encodes the diterpene cyclase for producing the halimane skeleton. <i>Chemical Communications</i> , 2005, , 1016.	2.2	71
17	Cellulose complementing factor (Ccp) is a new member of the cellulose synthase complex (terminal) Tj ETQq1 1 0.784314 rgBT /Over	1.1	71
18	Studies on Biosynthetic Genes and Enzymes of Isoprenoids Produced by Actinomycetes. <i>Journal of Antibiotics</i> , 2005, 58, 227-243.	1.0	69

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19	Synthesis of Acylborons by Ozonolysis of Alkenylboronates: Preparation of an Enantioenriched Amino Acid Acylboronate. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 13847-13851.	7.2	64
20	Studies on A New Biosynthetic Pathway for Menaquinone. <i>Journal of the American Chemical Society</i> , 2008, 130, 5614-5615.	6.6	61
21	The GLY1 Gene of <i>Saccharomyces Cerevisiae</i> Encodes a Low-Specific L-threonine Aldolase that Catalyzes Cleavage of L-allo-Threonine and L-threonine to Glycine. Expression of the Gene in <i>Escherichia Coli</i> and Purification and Characterization of the Enzyme. <i>FEBS Journal</i> , 1997, 245, 289-293.	0.2	57
22	Cloning of the Gene Cluster Responsible for the Biosynthesis of Brasilicardin A, a Unique Diterpenoid. <i>Journal of Antibiotics</i> , 2008, 61, 164-174.	1.0	53
23	A peptide ligase and the ribosome cooperate to synthesize the peptide pheganomycin. <i>Nature Chemical Biology</i> , 2015, 11, 71-76.	3.9	53
24	Enhanced production of polyunsaturated fatty acids by enzyme engineering of tandem acyl carrier proteins. <i>Scientific Reports</i> , 2016, 6, 35441.	1.6	51
25	An alternative menaquinone biosynthetic pathway operating in microorganisms: an attractive target for drug discovery to pathogenic <i>Helicobacter</i> and <i>Chlamydia</i> strains. <i>Journal of Antibiotics</i> , 2009, 62, 347-352.	1.0	45
26	Gram-scale fermentative production of ergothioneine driven by overproduction of cysteine in <i>Escherichia coli</i> . <i>Scientific Reports</i> , 2019, 9, 1895.	1.6	44
27	Identification and functional analysis of brassicene C biosynthetic gene cluster in <i>Alternaria brassicicola</i> . <i>Bioorganic and Medicinal Chemistry Letters</i> , 2009, 19, 870-874.	1.0	43
28	A Relationship between the Mevalonate Pathway and Isoprenoid Production in Actinomycetes. <i>Journal of Antibiotics</i> , 2003, 56, 957-966.	1.0	42
29	Chemo-enzymatic synthesis of polyhydroxyalkanoate (PHA) incorporating 2-hydroxybutyrate by wild-type class I PHA synthase from <i>Ralstonia eutropha</i> . <i>Applied Microbiology and Biotechnology</i> , 2011, 92, 509-517.	1.7	42
30	Heterologous and High Production of Ergothioneine in <i>Escherichia coli</i> . <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 1191-1196.	2.4	41
31	Organization and nature of fortimicin A (astromicin) biosynthetic genes studied using a cosmid library of <i>Micromonospora olivasterospora</i> DNA. <i>Molecular Genetics and Genomics</i> , 1992, 236, 39-48.	2.4	40
32	Biosynthetic Gene Cluster of a ϵ -Tryptophan-Containing Lasso Peptide, MS271. <i>ChemBioChem</i> , 2018, 19, 2045-2048.	1.3	40
33	Ergothioneine production with <i>Aspergillus oryzae</i> . <i>Bioscience, Biotechnology and Biochemistry</i> , 2019, 83, 181-184.	0.6	40
34	Biosynthesis of Shearinine: Diversification of a Tandem Prenyl Moiety of Fungal Indole Diterpenes. <i>Organic Letters</i> , 2016, 18, 5026-5029.	2.4	39
35	Cloning of a Gene Cluster Encoding Enzymes Responsible for the Mevalonate Pathway from a Terpenoid-antibiotic-producing <i>Streptomyces</i> Strain. <i>Bioscience, Biotechnology and Biochemistry</i> , 2001, 65, 1627-1635.	0.6	38
36	Presence of Copalyl Diphosphate Synthase Gene in an Actinomycete Possessing the Mevalonate Pathway. <i>Journal of Antibiotics</i> , 2004, 57, 739-747.	1.0	38

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37	Identification of Diterpene Biosynthetic Gene Clusters and Functional Analysis of Labdane-Related Diterpene Cyclases in <i>Phomopsis amygdali</i> . <i>Bioscience, Biotechnology and Biochemistry</i> , 2008, 72, 1038-1047.	0.6	38
38	Growth-phase Dependent Expression of the Mevalonate Pathway in a Terpenoid Antibiotic-producing <i>Streptomyces</i> Strain. <i>Bioscience, Biotechnology and Biochemistry</i> , 2002, 66, 808-819.	0.6	37
39	Convergent strategies in biosynthesis. <i>Natural Product Reports</i> , 2011, 28, 1054.	5.2	37
40	<i>In Vitro</i> Reconstitution of the Radical S-Adenosylmethionine Enzyme MqnC Involved in the Biosynthesis of Fufalosine-Derived Menaquinone. <i>Biochemistry</i> , 2013, 52, 4592-4594.	1.2	37
41	Dioxygenases, Key Enzymes to Determine the Aglycon Structures of Fusicoccin and Brassicicene, Diterpene Compounds Produced by Fungi. <i>Journal of the American Chemical Society</i> , 2011, 133, 2548-2555.	6.6	36
42	Diversity of the Early Step of the Fufalosine Pathway. <i>Antimicrobial Agents and Chemotherapy</i> , 2011, 55, 913-916.	1.4	35
43	Menaquinone Biosyntheses in Microorganisms. <i>Methods in Enzymology</i> , 2012, 515, 107-122.	0.4	35
44	Cellulose production by <i>Enterobacter</i> sp. CjF-002 and identification of genes for cellulose biosynthesis. <i>Cellulose</i> , 2012, 19, 1989-2001.	2.4	35
45	Synthesis of Acylborons by Ozonolysis of Alkenylboronates: Preparation of an Enantioenriched Amino Acid Acylboronate. <i>Angewandte Chemie</i> , 2017, 129, 14035-14039.	1.6	33
46	Control Mechanism for <i>cis</i> Double Bond Formation by Polyunsaturated Fatty Acid Synthases. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 2326-2330.	7.2	33
47	Novel enzymology in fufalosine-dependent menaquinone biosynthesis. <i>Current Opinion in Chemical Biology</i> , 2018, 47, 134-141.	2.8	31
48	Control Mechanism for Carbon Chain Length in Polyunsaturated Fatty Acid Synthases. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 6605-6610.	7.2	31
49	Ergothioneine protects <i>Streptomyces coelicolor</i> A3(2) from oxidative stresses. <i>Journal of Bioscience and Bioengineering</i> , 2015, 120, 294-298.	1.1	28
50	Enzymatic Formation of a Skipped Methyl-Substituted Octaprenyl Side Chain of Longestin (KS505a): Involvement of Homo-PP as a Common Extender Unit. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 6629-6632.	7.2	27
51	Common biosynthetic feature of fortimicin-group antibiotics.. <i>Journal of Antibiotics</i> , 1989, 42, 934-943.	1.0	26
52	Enzymatic Properties of Fufalosine Hydrolase, an Enzyme Essential to a Newly Identified Menaquinone Biosynthetic Pathway. <i>Bioscience, Biotechnology and Biochemistry</i> , 2009, 73, 1137-1141.	0.6	26
53	Interconversion of the Product Specificity of Type I Eubacterial Farnesyl Diphosphate Synthase and Geranylgeranyl Diphosphate Synthase through One Amino Acid Substitution. <i>Journal of Biochemistry</i> , 2003, 133, 83-91.	0.9	23
54	Functional analyses of cytochrome P450 genes responsible for the early steps of brassicicene C biosynthesis. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2009, 19, 5640-5643.	1.0	23

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55	Branched fatty acids inhibit the biosynthesis of menaquinone in <i>Helicobacter pylori</i> . <i>Journal of Antibiotics</i> , 2011, 64, 151-153.	1.0	23
56	Regiospecificities and Prenylation Mode Specificities of the Fungal Indole Diterpene Prenyltransferases AtmD and PaxD. <i>Applied and Environmental Microbiology</i> , 2013, 79, 7298-7304.	1.4	22
57	Biosynthesis of Oligopeptides Using ATP-Grasp Enzymes. <i>Chemistry - A European Journal</i> , 2017, 23, 10714-10724.	1.7	22
58	Aplasmomycin and boromycin are specific inhibitors of the futasoline pathway. <i>Journal of Antibiotics</i> , 2018, 71, 968-970.	1.0	22
59	Cloning of the Gene Cluster Responsible for Biosynthesis of KS-505a (Longestin), a Unique Tetraterpenoid. <i>Bioscience, Biotechnology and Biochemistry</i> , 2007, 71, 3072-3081.	0.6	21
60	Total Biosynthesis of Brassicenes: Identification of a Key Enzyme for Skeletal Diversification. <i>Organic Letters</i> , 2018, 20, 6178-6182.	2.4	21
61	Exploring Peptide Ligase Orthologs in Actinobacteria—Discovery of Pseudopeptide Natural Products, Ketomemecins. <i>ACS Chemical Biology</i> , 2016, 11, 1686-1692.	1.6	20
62	Identification of tirandamycins as specific inhibitors of the futasoline pathway. <i>Journal of Antibiotics</i> , 2017, 70, 798-800.	1.0	20
63	An Enzyme Catalyzing the Prenylation of the Glucose Moiety of Fusicoccin A, a Diterpene Glucoside Produced by the Fungus <i>Phomopsis amygdali</i> . <i>ChemBioChem</i> , 2012, 13, 566-573.	1.3	19
64	Peptide Epimerization Machineries Found in Microorganisms. <i>Frontiers in Microbiology</i> , 2018, 9, 156.	1.5	19
65	Molecular Breeding of a Fungus Producing a Precursor Diterpene Suitable for Semi-Synthesis by Dissection of the Biosynthetic Machinery. <i>PLoS ONE</i> , 2012, 7, e42090.	1.1	18
66	Functional analysis of a prenyltransferase gene (paxD) in the paxilline biosynthetic gene cluster. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 199-206.	1.7	18
67	Identification of Cyclopropane Formation in the Biosyntheses of Hormaomycins and Belactosins: Sequential Nitration and Cyclopropanation by Metalloenzymes. <i>Angewandte Chemie - International Edition</i> , 2022, 61, e202113189.	7.2	18
68	Biosynthesis of the Carbonylmethylene Structure Found in the Ketomemecins Class of Pseudotripeptides. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 2026-2029.	7.2	17
69	Substrate specificity of the CYC2 enzyme from <i>Kitasatospora griseola</i> : production of sclarene, biformene, and novel bicyclic diterpenes by the enzymatic reactions of labdane- and halimane-type diterpene diphosphates. <i>Tetrahedron Letters</i> , 2010, 51, 125-128.	0.7	16
70	High Production of Ergothioneine in <i>Escherichia coli</i> using the Sulfoxide Synthase from <i>Methylobacterium</i> strains. <i>Journal of Agricultural and Food Chemistry</i> , 2020, 68, 6390-6394.	2.4	16
71	Analysis of the <i>Lactobacillus</i> Metabolic Pathway. <i>Applied and Environmental Microbiology</i> , 2010, 76, 7299-7301.	1.4	15
72	Recent advances in functional analysis of polyunsaturated fatty acid synthases. <i>Current Opinion in Chemical Biology</i> , 2020, 59, 30-36.	2.8	14

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73	Identification of the peptide epimerase MslH responsible for D-amino acid introduction at the C-terminus of ribosomal peptides. <i>Chemical Science</i> , 2021, 12, 2567-2574.	3.7	13
74	New gene responsible for para-aminobenzoate biosynthesis. <i>Journal of Bioscience and Bioengineering</i> , 2014, 117, 178-183.	1.1	12
75	Identification and analysis of the resorcinomycin biosynthetic gene cluster. <i>Bioscience, Biotechnology and Biochemistry</i> , 2015, 79, 1833-1837.	0.6	12
76	A fungal prenyltransferase catalyzes the regular di-prenylation at positions 20 and 21 of paxilline. <i>Bioscience, Biotechnology and Biochemistry</i> , 2014, 78, 448-454.	0.6	11
77	N-Phenylacetylation and Nonribosomal Peptide Synthetases with Substrate Promiscuity for Biosynthesis of Heptapeptide Variants, JBIR-78 and JBIR-95. <i>ACS Chemical Biology</i> , 2017, 12, 1813-1819.	1.6	11
78	A Glycopeptidyl-Glutamate Epimerase for Bacterial Peptidoglycan Biosynthesis. <i>Journal of the American Chemical Society</i> , 2017, 139, 4243-4245.	6.6	11
79	Involvement of Peptide Epimerization in Poly- β -glutamic Acid Biosynthesis. <i>Organic Letters</i> , 2019, 21, 3972-3975.	2.4	11
80	Off-Loading Mechanism of Products in Polyunsaturated Fatty Acid Synthases. <i>ACS Chemical Biology</i> , 2020, 15, 651-656.	1.6	11
81	Identification of actinomycin D as a specific inhibitor of the alternative pathway of peptidoglycan biosynthesis. <i>Journal of Antibiotics</i> , 2020, 73, 125-127.	1.0	10
82	Biosynthetic Gene Cluster of Linaridin Peptides Contains Epimerase Gene. <i>ChemBioChem</i> , 2022, 23, .	1.3	10
83	Characterization of three amidinotransferases involved in the biosynthesis of ketomemecins. <i>Biorganic and Medicinal Chemistry Letters</i> , 2016, 26, 3662-3664.	1.0	9
84	Subtle Control of Carbon Chain Length in Polyunsaturated Fatty Acid Synthases. <i>ACS Chemical Biology</i> , 2019, 14, 2553-2556.	1.6	9
85	Advanced functionalization of polyhydroxyalkanoate via the UV-initiated thiol-ene click reaction. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 4375-4383.	1.7	8
86	Enzymatic Formation of a Skipped Methyl-Substituted Octaprenyl Side Chain of Longestin (KS505a): Involvement of Homo-PP as a Common Extender Unit. <i>Angewandte Chemie</i> , 2018, 130, 6739-6742.	1.6	7
87	In vitro characterization of MitE and MitB: Formation of N-acetylglucosaminyl-3-amino-5-hydroxybenzoyl-MmcB as a key intermediate in the biosynthesis of antitumor antibiotic mitomycins. <i>Biorganic and Medicinal Chemistry Letters</i> , 2019, 29, 2076-2078.	1.0	6
88	Structure and activity relationships of the anti-Mycobacterium antibiotics resorcinomycin and peganomycin. <i>Journal of Antibiotics</i> , 2016, 69, 119-120.	1.0	5
89	Amino Acid Residues Recognizing Isomeric Glutamate Substrates in UDP- N -acetylmuramic acid- α -alanine-glutamate Synthetases. <i>ACS Chemical Biology</i> , 2019, 14, 975-978.	1.6	5
90	Discovery of an alternative pathway of peptidoglycan biosynthesis: A new target for pathway specific inhibitors. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2021, 48, .	1.4	4

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91	Shotgun Cloning and Characterization of the Thymidylate Synthase-encoding Gene from <i>Mycobacterium bovis</i> BCG. <i>Microbiology and Immunology</i> , 1998, 42, 15-21.	0.7	3
92	Searching for potent and specific antibiotics against pathogenic <i>Helicobacter</i> and <i>Campylobacter</i> strains. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2019, 46, 409-414.	1.4	3
93	Control Mechanism for <i>cis</i> Double-Bond Formation by Polyunsaturated Fatty Acid Synthases. <i>Angewandte Chemie</i> , 2019, 131, 2348-2352.	1.6	3
94	Identification of Cyclopropane Formation in the Biosyntheses of Hormaomycins and Belactosins: Sequential Nitration and Cyclopropanation by Metalloenzymes. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	3
95	Isoprenoid in Actinomycetes. , 2010, , 789-814.		2
96	Synthesis of (Δ^{\pm})-cyclic dehydropurine futasoline, the biosynthetic intermediate in an alternative biosynthetic pathway for menaquinones. <i>Tetrahedron Letters</i> , 2011, 52, 4934-4937.	0.7	2
97	Biosynthesis of the Carbonylmethylene Structure Found in the Ketomemycin Class of Pseudotriptides. <i>Angewandte Chemie</i> , 2017, 129, 2058-2061.	1.6	2
98	Control Mechanism for Carbon-Chain Length in Polyunsaturated Fatty Acid Synthases. <i>Angewandte Chemie</i> , 2019, 131, 6677-6682.	1.6	2
99	Flavonoids from <i>Woodfordia fruticosa</i> as potential SmltD inhibitors in the alternative biosynthetic pathway of peptidoglycan. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2021, 36, 127787.	1.0	2
100	Identification of pulvomycin as an inhibitor of the futasoline pathway. <i>Journal of Antibiotics</i> , 2021, 74, 825-829.	1.0	2
101	Functional analysis of methyltransferases participating in streptothricin-related antibiotic biosynthesis. <i>Journal of Bioscience and Bioengineering</i> , 2018, 125, 148-154.	1.1	1
102	Frontispiece: Biosynthesis of Oligopeptides Using ATP-grasp Enzymes. <i>Chemistry - A European Journal</i> , 2017, 23, .	1.7	0
103	Biosynthetic Genes and Enzymes of Isoprenoids Produced by Actinomycetes. , 2012, , 29-49.		0
104	æ”¼ç·šè€äç”ÿä†ª–äÿç–‘ä¼¼äššäf—äfäf%äç–äç%©. <i>Kagaku To Seibutsu</i> , 2018, 56, 76-78.	0.0	0