C Dale Poulter

List of Publications by Year
in descending order

211 papers	9,006 citations	41344 49 h-index	58581 82 g-index
216 all docs	216 docs citations	216 times ranked	5410 citing authors

#	Article	IF	Citations
1	BIOCHEMISTRY: Creating Isoprenoid Diversity. Science, 1997, 277, 1788-1789.	12.6	504
2	Crystal Structure of Recombinant Farnesyl Diphosphate Synthase at 2.6-.ANG. Resolution. Biochemistry, 1994, 33, 10871-10877.	2.5	415
3	Phosphorylation of isoprenoid alcohols. Journal of Organic Chemistry, 1986, 51, 4768-4779.	3.2	315
4	Isoprenyl diphosphate synthases: Protein sequence comparisons, a phylogenetic tree, and predictions of secondary structure. Protein Science, 1994, 3, 600-607.	7.6	205
5	Chain elongation in the isoprenoid biosynthetic pathway. Current Opinion in Chemical Biology, 1997, 1, 570-578.	6.1	196
6	[15] Synthesis of allylic and homoallylic isoprenoid pyrophosphates. Methods in Enzymology, 1985, 110, 130-144.	1.0	193
7	The prenyl transfer reaction. Enzymic and mechanistic studies of the 1'-4 coupling reaction in the terpene biosynthetic pathway. Accounts of Chemical Research, 1978, 11, 307-313.	15.6	176
8	The Enzyme Function Initiative. Biochemistry, 2011, 50, 9950-9962.	2.5	169
9	Escherichia coli Open Reading Frame 696 Is idi , a Nonessential Gene Encoding Isopentenyl Diphosphate Isomerase. Journal of Bacteriology, 1999, 181, 4499-4504.	2.2	168
10	Chimeras of Two Isoprenoid Synthases Catalyze All Four Coupling Reactions in Isoprenoid Biosynthesis. Science, 2007, 316, 73-76.	12.6	160
11	Regio- and Chemoselective Covalent Immobilization of Proteins through Unnatural Amino Acids. Journal of the American Chemical Society, 2006, 128, 9274-9275.	13.7	141
12	Synthesis of nucleotide 5'-diphosphates from 5'-O-tosyl nucleosides. Journal of Organic Chemistry, 1987, 52, 1794-1801.	3.2	129
13	Biosynthesis of non-head-to-tail terpenes. Formation of 1'-1 and 1'-3 linkages. Accounts of Chemical Research, 1990, 23, 70-77.	15.6	115
14	Isopentenyl-diphosphate isomerase: inactivation of the enzyme with active-site-directed irreversible inhibitors and transition state analogs. Biochemistry, 1988, 27, 7315-7328.	2.5	100
15	The CaaX Proteases, Afc1p and Rce1p, Have Overlapping but Distinct Substrate Specificities. Molecular and Cellular Biology, 2000, 20, 4381-4392.	2.3	93
16	Farnesylpyrophosphate synthetase. A stepwise mechanism for the 1'-4 condensation reaction. Journal of the American Chemical Society, 1981, 103, 3926-3927.	13.7	91
17	Proton-nitrogen-15 NMR studies of Escherichia coli tRNAPhe from HisT mutants: a structural role for pseudouridine. Biochemistry, 1991, 30, 4223-4231.	2.5	91
18	1-Deoxy- d -Xylulose 5-Phosphate Synthase, the Gene Product of Open Reading Frame (ORF) 2816 and ORF 2895 in Rhodobacter capsulatus. Journal of Bacteriology, 2001, 183, 1-11.	2.2	91

#	Article	IF	Citations
19	Farnesyl Diphosphate Synthase:Â The Art of Compromise between Substrate Selectivity and Stereoselectivity. Journal of the American Chemical Society, 2006, 128, 15819-15823.	13.7	88
20	BTS1 Encodes a Geranylgeranyl Diphosphate Synthase in Saccharomyces cerevisiae. Journal of Biological Chemistry, 1995, 270, 21793-21799.	3.4	87
21	Enzymes Encoded by the Farnesyl Diphosphate Synthase Gene Family in the Big Sagebrush Artemisia tridentata ssp. spiciformis. Journal of Biological Chemistry, 2003, 278, 32132-32140.	3.4	87
22	Biosynthesis of archaebacterial ether lipids. Formation of ether linkages by prenyltransferases. Journal of the American Chemical Society, 1993, 115, 1270-1277.	13.7	82
23	Dimethylallyltryptophan synthase. An enzyme-catalyzed electrophilic aromatic substitution. Journal of the American Chemical Society, 1992, 114, 7354-7360.	13.7	77
24	Prenyltransferase: the mechanism of the reaction. Biochemistry, 1976, 15, 1079-1083.	2.5	76
25	[4] Continuous fluorescence assay for protein prenyltransferases. Methods in Enzymology, 1995, 250, 30-43.	1.0	75
26	Prediction of function for the polyprenyl transferase subgroup in the isoprenoid synthase superfamily. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1196-202.	7.1	75
27	Stereochemistry of the methylene iodide-zinc-copper couple methylenation of cyclic allylic alcohols. Journal of the American Chemical Society, 1969, 91, 6892-6894.	13.7	72
28	Tetramethylsqualene, a triterpene from Botryococcus braunii var. showa. Phytochemistry, 1989, 28, 1467-1470.	2.9	72
29	Prenylated proteins. A convenient synthesis of farnesyl cysteinyl thioethers. Journal of the American Chemical Society, 1991, 113, 3176-3177.	13.7	72
30	Macrocyclic Lactones from Dirhodium(II)-Catalyzed Intramolecular Cyclopropanation and Carbon-Hydrogen Insertion. Journal of the American Chemical Society, 1995, 117, 7281-7282.	13.7	72
31	Catalytic Mechanism of Escherichia coli Isopentenyl Diphosphate Isomerase Involves Cys-67, Glu-116, and Tyr-104 as Suggested by Crystal Structures of Complexes with Transition State Analogues and Irreversible Inhibitors. Journal of Biological Chemistry, 2003, 278, 11903-11908.	3.4	72
32	Farnesyl Diphosphate Synthase. Altering the Catalytic Site To Select for Geranyl Diphosphate Activityâ€. Biochemistry, 2000, 39, 15316-15321.	2.5	70
33	Mechanism of the prenyl transfer reaction. Studies with (E)- and (Z)-3-trifluoromethyl-2-buten-1-yl pyrophosphate. Biochemistry, 1977, 16, 5470-5478.	2.5	69
34	Regioselective opening of simple epoxides with diisopropylamine trihydrofluoride. Journal of Organic Chemistry, 1988, 53, 1026-1030.	3.2	69
35	Biosynthesis of Squalene from Farnesyl Diphosphate in Bacteria: Three Steps Catalyzed by Three Enzymes. ACS Central Science, 2015, 1, 77-82.	11.3	69
36	Squalene synthetase, inhibition by ammonium analogs of carbocationic intermediates in the conversion of presqualene diphosphate to squalene. Journal of the American Chemical Society, 1989, 111, 3734-3739.	13.7	68

#	Article	IF	Citations
37	A Stereoselective Palladium/Copper-Catalyzed Route to Isoprenoids: Synthesis and Biological Evaluation of 13-Methylidenefarnesyl Diphosphate. Journal of Organic Chemistry, 1995, 60, 7821-7829.	3.2	65
38	Recombinant Squalene Synthase. A Mechanism for the Rearrangement of Presqualene Diphosphate to Squalene. Journal of the American Chemical Society, 2002, 124, 8846-8853.	13.7	64
39	Analysis of the isopentenyl diphosphate isomerase gene family from Arabidopsis thaliana. Plant Molecular Biology, 1998, 36, 323-328.	3.9	60
40	Prenyltransferase: determination of the binding mechanism and individual kinetic constants for farnesylpyrophosphate synthetase by rapid quench and isotope partitioning experiments. Biochemistry, 1981, 20, 1893-1901.	2.5	58
41	Characterization of Thermophilic Archaeal Isopentenyl Phosphate Kinases. Biochemistry, 2010, 49, 207-217.	2.5	57
42	Cloning, Solubilization, and Characterization of Squalene Synthase from Thermosynechococcus elongatus BP-1. Journal of Bacteriology, 2008, 190, 3808-3816.	2.2	56
43	Addition of eschenmoser's salt to ketone, ester, & lactone enolates. A convenient synthesis of a-methylene carbonyls via mannich intermediates. Tetrahedron Letters, 1977, 18, 1621-1623.	1.4	53
44	Synthesis of fluorinated analogs of geraniol. Journal of Organic Chemistry, 1981, 46, 1532-1538.	3.2	52
45	Squalene synthetase. Inhibition by an ammonium analogue of a carbocationic intermediate in the conversion of presqualene pyrophosphate to squalene. Journal of the American Chemical Society, 1982, 104, 7376-7378.	13.7	52
46	Recombinant Squalene Synthase. Synthesis of Non-Head-to-Tail Isoprenoids in the Absence of NADPH. Journal of the American Chemical Society, 2002, 124, 8834-8845.	13.7	52
47	Farnesyl Diphosphate Synthase. A Paradigm for Understanding Structure and Function Relationships in E-polyprenyl Diphosphate Synthases. Phytochemistry Reviews, 2006, 5, 17-26.	6.5	52
48	Mechanism of squalene biosynthesis. Presqualene pyrophosphate, stereochemistry, and a mechanism for its conversion to squalene. Journal of the American Chemical Society, 1971, 93, 1783-1785.	13.7	51
49	Farnesyl Diphosphate Analogues with Ï‰-Bioorthogonal Azide and Alkyne Functional Groups for Protein Farnesyl Transferase-Catalyzed Ligation Reactions. Journal of Organic Chemistry, 2007, 72, 9291-9297.	3.2	51
50	Regioselective Covalent Immobilization of Recombinant Antibody-Binding Proteins A, G, and L for Construction of Antibody Arrays. Journal of the American Chemical Society, 2013, 135, 8973-8980.	13.7	50
51	Enantioselective Synthesis of (+)-Presqualene Diphosphate. Journal of Organic Chemistry, 1995, 60, 941-945.	3.2	49
52	Protein farnesyltransferase: production in Escherichia coli and imrmmoaffinity purification of the heterodimer from Saccharomyces cerevisiae. Gene, 1993, 132, 41-47.	2.2	48
53	Tris(tetrabutylammonium) hydrogen pyrophosphate. A new reagent for the preparation of allylic pyrophosphate esters. Journal of Organic Chemistry, 1981, 46, 1967-1969.	3.2	47
54	Methane- and difluoromethanediphosphonate analogs of geranyl diphosphate: hydrolysis-inert alternate substrates. Journal of the American Chemical Society, 1987, 109, 5542-5544.	13.7	47

#	Article	IF	Citations
55	Synthesis and Evaluation of 1-Deoxy-d-xylulose 5-Phosphoric Acid Analogues as Alternate Substrates for Methylerythritol Phosphate Synthase. Journal of Organic Chemistry, 2005, 70, 1978-1985.	3.2	47
56	Escherichia coliDimethylallyl Diphosphate:tRNA Dimethylallyltransferase:Â Essential Elements for Recognition of tRNA Substrates Within the Anticodon Stemâ˜Loopâ€. Biochemistry, 2000, 39, 6546-6553.	2.5	46
57	Shielding effects of a cyclopropane ring. Journal of the American Chemical Society, 1972, 94, 2291-2296.	13.7	45
58	Cuprate-Mediated Synthesis and Biological Evaluation of Cyclopropyl- andtert-Butylfarnesyl Diphosphate Analogs. Journal of Organic Chemistry, 1996, 61, 8010-8015.	3.2	45
59	Escherichia coli Dimethylallyl Diphosphate:tRNA Dimethylallyltransferase:â€‰ A Binding Mechanism for Recombinant Enzyme. Biochemistry, 1997, 36, 604-614.	2.5	44
60	Kinetic and Spectroscopic Characterization of Type II Isopentenyl Diphosphate Isomerase from Thermus thermophilus:â€‰ Evidence for Formation of Substrate-Induced Flavin Species. Biochemistry, 2007, 46, 5437-5445.	2.5	44
61	Hydrogen exchange during the enzyme-catalyzed isomerization of isopentenyl diphosphate and dimethylallyl diphosphate. Journal of the American Chemical Society, 1990, 112, 8577-8578.	13.7	42
62	Yeast Protein Farnesyltransferase:Â A Pre-Steady-State Kinetic Analysisâ€. Biochemistry, 1997, 36, 6367-6376.	2.5	42
63	Computational-guided discovery and characterization of a sesquiterpene synthase from Streptomyces clavuligerus. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5661-5666.	7.1	42
64	Prenyltransferase. New evidence for an ionization-condensation-elimination mechanism with 2-fluorogeranyl pyrophosphate. Journal of the American Chemical Society, 1977, 99, 957-959.	13.7	41
65	Identification of an Archaeal Type II Isopentenyl Diphosphate Isomerase in Methanothermobacter thermautotrophicus. Journal of Bacteriology, 2004, 186, 1811-1817.	2.2	41
66	Escherichia coliType I Isopentenyl Diphosphate Isomerase:Â Structural and Catalytic Roles for Divalent Metals. Journal of the American Chemical Society, 2006, 128, 11545-11550.	13.7	41
67	Biosynthesis of archaebacterial membranes. Formation of isoprene ethers by a prenyl transfer reaction. Journal of the American Chemical Society, 1990, 112, 1264-1265.	13.7	40
68	Farnesyl-diphosphate synthase. Catalysis of an intramolecular prenyl transfer with bisubstrate analogs. Journal of the American Chemical Society, 1993, 115, 1235-1245.	13.7	40
69	A Common Mechanism for Branching, Cyclopropanation, and Cyclobutanation Reactions in the Isoprenoid Biosynthetic Pathway. Journal of the American Chemical Society, 2008, 130, 1966-1971.	13.7	40
70	Model studies of terpene biosynthesis. A stepwise mechanism for cyclization of nerol to .alpha.-terpineol. Journal of the American Chemical Society, 1982, 104, 1422-1424.	13.7	39
71	Synthesis of Protein Farnesyltransferase and Protein Geranylgeranyltransferase Inhibitors:â€‰ Rapid Access to Chaetomellic Acid A and Its Analogues. Journal of Organic Chemistry, 1996, 61, 6296-6301.	3.2	39
72	Yeast Protein Farnesyltransferase. pKas of Peptide Substrates Bound as Zinc Thiolatesâ€. Biochemistry, 1999, 38, 13138-13146.	2.5	39

#	Article	IF	Citations
73	Multisite Prenylation of 4-Substituted Tryptophans by Dimethylallyltryptophan Synthase. Journal of the American Chemical Society, 2013, 135, 1895-1902.	13.7	39
74	Model studies of the biosynthesis of non-head-to-tail terpenes. Rearrangements of the chrysanthemyl system. Journal of the American Chemical Society, 1977, 99, 3816-3823.	13.7	38
75	Biosynthesis of Archaebacterial lipids in Halobacterium halobium and Methanobacterium thermoautotrophicum. Journal of Organic Chemistry, 1993, 58, 3919-3922.	3.2	38
76	Biosynthesis of Squalene. Evidence for a Tertiary Cyclopropylcarbinyl Cationic Intermediate in the Rearrangement of Presqualene Diphosphate to Squalene. Journal of the American Chemical Society, 1996, 118, 13089-13090.	13.7	38
77	Braunicene. A novel cyclic C32 isoprenoid from Botryococcus braunii. Journal of the American Chemical Society, 1988, 110, 3959-3964.	13.7	37
78	Farnesyl Protein Transferase:Â Identification of K164Î± and Y300Î² as Catalytic Residues by Mutagenesis and Kinetic Studiesâ€. Biochemistry, 1999, 38, 11239-11249.	2.5	37
79	Zinc Is an Essential Cofactor for Type I Isopentenyl Diphosphate:Dimethylallyl Diphosphate Isomerase. Journal of the American Chemical Society, 2003, 125, 9008-9009.	13.7	37
80	Tyrosine O-Prenyltransferase SirD Catalyzes S-, C-, and N-Prenylations on Tyrosine and Tryptophan Derivatives. ACS Chemical Biology, 2013, 8, 2707-2714.	3.4	37
81	Biosynthesis of isoprenoid membranes in the methanogenic archaebacterium Methanospirillum hungatei. Journal of the American Chemical Society, 1988, 110, 2620-2624.	13.7	36
82	Isolation of Schizosaccharomyces pombe Isopentenyl Diphosphate Isomerase cDNA Clones by Complementation and Synthesis of the Enzyme in Escherichia coli. Journal of Biological Chemistry, 1995, 270, 11298-11303.	3.4	36
83	Squalene Synthase:Â Steady-State, Pre-Steady-State, and Isotope-Trapping Studiesâ€. Biochemistry, 2000, 39, 1748-1760.	2.5	36
84	Type II Isopentenyl Diphosphate Isomerase:â€‰ Irreversible Inactivation by Covalent Modification of Flavin. Journal of the American Chemical Society, 2008, 130, 4906-4913.	13.7	36
85	Inhibition of IspH, a [4Feâ€“4S]2+ Enzyme Involved in the Biosynthesis of Isoprenoids via the Methylerythritol Phosphate Pathway. Journal of the American Chemical Society, 2013, 135, 1816-1822.	13.7	36
86	Disruption and mapping ofIDI1, the gene for isopentenyl diphosphate isomerase inSaccharomyces cerevisiae. Yeast, 1992, 8, 743-748.	1.7	35
87	Synthesis of 2-C-Methyl-d-erythritol 4-Phosphate:â€‰ The First Pathway-Specific Intermediate in the Methylerythritol Phosphate Route to Isoprenoids. Organic Letters, 2000, 2, 215-217.	4.6	35
88	Type II Isopentenyl Diphosphate Isomerase from Synechocystis sp. Strain PCC 6803. Journal of Bacteriology, 2004, 186, 8156-8158.	2.2	35
89	Synthesis of analogs of farnesyl diphosphate. Tetrahedron, 1996, 52, 119-130.	1.9	34
90	Yeast Protein Farnesyltransferase. Site-Directed Mutagenesis of Conserved Residues in the Î²-Subunit. Biochemistry, 1997, 36, 9246-9252.	2.5	34

#	Article	IF	Citations
91	Synthesis of Deuterium-Labeled Derivatives of Dimethylallyl Diphosphate. Journal of Organic Chemistry, 2006, 71, 1739-1741.	3.2	34
92	Farnesylpyrophosphate synthetase. Evidence for a rigid geranyl cation-pyrophosphate anion pair. Journal of the American Chemical Society, 1981, 103, 3927-3929.	13.7	33
93	Isopentenyl diphosphate:dimethylallyl diphosphate isomerase. Irreversible inhibition of the enzyme by active-site-directed covalent attachment. Journal of the American Chemical Society, 1985, 107, 8307-8308.	13.7	33
94	NMR studies of nucleic acids. Deuterium isotope effects on carbon-13 chemical shifts in hydrogen-bonded complexes of pyrimidines and purines. Journal of the American Chemical Society, 1988, 110, 7640-7647.	13.7	33
95	Farnesyl-diphosphate synthase. Interplay between substrate topology, stereochemistry, and regiochemistry in electrophilic alkylations.. Journal of the American Chemical Society, 1993, 115, 1245-1260.	13.7	33
96	Geranylgeranylglyceryl Phosphate Synthase. Characterization of the Recombinant Enzyme fromMethanobacterium thermoautotrophicumâ€. Biochemistry, 2001, 40, 14847-14854.	2.5	33
97	Proton NMR studies of nitrogen-15-labeled Escherichia coli tRNAfMet. Assignments of imino resonances for uridine-related bases by proton-nitrogen-15 heteronuclear double resonance difference spectroscopy. Journal of the American Chemical Society, 1983, 105, 143-145.	13.7	32
98	Stereochemical studies of botryococcene biosynthesis: analogies between 1'-1 and 1'-3 condensations in the isoprenoid pathway. Journal of the American Chemical Society, 1989, 111, 2713-2715.	13.7	32
99	Biosynthesis of Non-Head-to-Tail Isoprenoids. Synthesis of 1'-1 and 1'-3 Structures by Recombinant Yeast Squalene Synthase. Journal of the American Chemical Society, 1995, 117, 1641-1642.	13.7	32
100	Synthesis of 1-Deoxy-d-xylulose and 1-Deoxy-d-xylulose-5-phosphate. Journal of Organic Chemistry, 1999, 64, 1508-1511.	3.2	31
101	Novel phosphonylphosphinyl (P-C-P-C-) analogs of biochemically interesting diphosphates. Syntheses and properties of P-C-P-C-, analogs of isopentenyl diphosphate and dimethylallyl diphosphate. Journal of the American Chemical Society, 1987, 109, 5544-5545.	13.7	30
102	Escherichia coliDimethylallyl Diphosphate:tRNA Dimethylallyltransferase:Â Site-Directed Mutagenesis of Highly Conserved Residuesâ€. Biochemistry, 2001, 40, 1734-1740.	2.5	30
103	2',3',5'-Tri-O-benzoyl[4-13C]uridine. An efficient, regiospecific synthesis of the pyrimidine ring. Journal of Organic Chemistry, 1978, 43, 1547-1550.	3.2	29
104	Yeast Protein Geranylgeranyltransferase Type-I:Â Steady-State Kinetics and Substrate Bindingâ€. Biochemistry, 1997, 36, 4552-4557.	2.5	29
105	Synthesis of (S)-Isoprenoid Thiodiphosphates as Substrates and Inhibitors. Journal of Organic Chemistry, 2001, 66, 6705-6710.	3.2	29
106	Model studies of terpene biosynthesis. Stereospecific cyclization of N-methyl-(S)-4-([1'-2H]neryloxy)pyridinium methyl sulfate to .alpha.-terpineol. Journal of the American Chemical Society, 1982, 104, 1420-1422.	13.7	28
107	Transition State Analogs for Protein Farnesyltransferase. Journal of the American Chemical Society, 1996, 118, 8761-8762.	13.7	28
108	Yeast Geranylgeranyltransferase Type-II:Â Steady State Kinetic Studies of the Recombinant Enzymeâ€. Biochemistry, 1996, 35, 10454-10463.	2.5	28

#	Article	IF	Citations
109	Type-2 Isopentenyl Diphosphate Isomerase. Mechanistic Studies with Cyclopropyl and Epoxy Analogues. Journal of the American Chemical Society, 2007, 129, 7740-7741.	13.7	28
110	X-ray Structures of Isopentenyl Phosphate Kinase. ACS Chemical Biology, 2010, 5, 517-527.	3.4	28
111	Recent studies of the mechanism of protein prenylation (1992 to 1998). Natural Product Reports, 2000, 17, 137-144.	10.3	27
112	Measuring the activity of farnesyltransferase by capillary electrophoresis with laser-induced fluorescence detection. Electrophoresis, 2002, 23, 3398-3403.	2.4	27
113	Stereospecific cationic rearrangements of syn- and antibicyclo[6.1.0]nonane derivatives. Journal of the American Chemical Society, 1970, 92, 4274-4281.	13.7	26
114	Allylic and Homoallylic CD Exciton Chirality: A Sensitive Method for Determining the Absolute Stereochemistry of Natural Products. Journal of Organic Chemistry, 1995, 60, 3539-3542.	3.2	26
115	Coupling of Isoprenoid Triflates with Organoboron Nucleophiles: Synthesis and Biological Evaluation of Geranylgeranyl Diphosphate Analogues. Bioorganic and Medicinal Chemistry, 2002, 10, 1207-1219.	3.0	26
116	Structure of Thermus thermophilus type 2 isopentenyl diphosphate isomerase inferred from crystallography and molecular dynamics. Biochemical and Biophysical Research Communications, 2005, 338, 1515-1518.	2.1	26
117	Defining the Product Chemical Space of Monoterpenoid Synthases. PLoS Computational Biology, 2016, 12, e1005053.	3.2	26
118	Proton NMR studies of 15N-labeled Escherichia coli tRNAfMet. An unambiguous assignment for the G-U pair and detection of a uridine resonance at 11.4 ppm. Journal of the American Chemical Society, 1982, 104, 5811-5813.	13.7	25
119	Covalent modification of reduced flavin mononucleotide in type-2 isopentenyl diphosphate isomerase by active-site-directed inhibitors. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20461-20466.	7.1	25
120	Stereospecific homoallylic ring expansions and contractions. Journal of the American Chemical Society, 1970, 92, 4282-4288.	13.7	24
121	Model studies of the biosynthesis of non-head-to-tail terpenes. Stereochemistry of the head-to-head rearrangement. Journal of the American Chemical Society, 1977, 99, 3830-3837.	13.7	24
122	Solid-Phase Synthesis of a Farnesylated CaaX Peptide Library:Â Inhibitors of the Ras CaaX Endoproteaseâ€. ACS Combinatorial Science, 2000, 2, 522-536.	3.3	24
123	Bacterial Phytoene Synthase:Â Molecular Cloning, Expression, and Characterization ofErwinia herbicolaPhytoene Synthaseâ€. Biochemistry, 2003, 42, 3359-3365.	2.5	24
124	Farnesyl pyrophosphate synthetase. Mechanistic studies of the 1'-4 coupling reaction in the terpene biosynthetic pathway. Journal of the American Chemical Society, 1979, 101, 6761-6763.	13.7	23
125	Isopentenyl diphosphate isomerase. Mechanism of active-site-directed irreversible inhibition by 3-(fluoromethyl)-3-butenyl diphosphate. Journal of the American Chemical Society, 1989, 111, 3740-3742.	13.7	23
126	Predicting the Functions and Specificity of Triterpenoid Synthases: A Mechanism-Based Multi-intermediate Docking Approach. PLoS Computational Biology, 2014, 10, e1003874.	3.2	23

#	Article	IF	Citations
127	Mass spectral data for gas chromatograph-mass spectral identification of some irregular monoterpenes. Journal of Chemical & Engineering Data, 1976, 21, 500-502.	1.9	22
128	Chrysanthemyl Diphosphate Synthase. The Relationship among Chain Elongation, Branching, and Cyclopropanation Reactions in the Isoprenoid Biosynthetic Pathway. Journal of the American Chemical Society, 2003, 125, 6886-6888.	13.7	22
129	Synthesis and biological activity of isopentenyl diphosphate analogues. Bioorganic and Medicinal Chemistry, 2004, 12, 763-770.	3.0	22
130	Enantioselective Inhibition of Squalene Synthase by Aziridine Analogues of Presqualene Diphosphate. Journal of Organic Chemistry, 2010, 75, 4769-4777.	3.2	22
131	Proton NMR studies of 15N-labeled Escherichia coli tRNAfMet. Use of 1J1H-15N couplings to identify imino resonances of uridine-related bases. Journal of the American Chemical Society, 1982, 104, 5810-5811.	13.7	21
132	Solvolysis of allylic isoprene phosphorothioate esters. A mechanistic study of the thiono .fwdarw. thiolo rearrangement. Journal of the American Chemical Society, 1991, 113, 4895-4903.	13.7	21
133	Synthesis of (E)-4-Hydroxydimethylallyl Diphosphate. An Intermediate in the Methyl Erythritol Phosphate Branch of the Isoprenoid Pathway. Journal of Organic Chemistry, 2002, 67, 5009-5010.	3.2	21
134	Type II Isopentenyl Diphosphate Isomerase: Probing the Mechanism with Alkyne/Allene Diphosphate Substrate Analogues. Biochemistry, 2010, 49, 6228-6233.	2.5	21
135	Biosynthesis of Isoprenoids inEscherichia coli:Â Stereochemistry of the Reaction Catalyzed by Farnesyl Diphosphate Synthase. Organic Letters, 1999, 1, 1071-1073.	4.6	20
136	Synthesis and Evaluation of Substrate Analogues as Mechanism-Based Inhibitors of Type II Isopentenyl Diphosphate Isomerase. Journal of Organic Chemistry, 2008, 73, 726-729.	3.2	20
137	Archaebacterial isoprenoids. Synthesis of 2,3-di-O-phytanyl-sn-glycerol and its 1,2-isomer. Journal of Organic Chemistry, 1985, 50, 5634-5636.	3.2	19
138	Solid-Phase Synthesis of a Radiolabeled, Biotinylated, and Farnesylated Ca1a2X Peptide Substrate for Ras- anda-Mating Factor Converting Enzyme. Bioconjugate Chemistry, 2001, 12, 35-43.	3.6	19
139	Addition of Grignard and lithium reagents to Eschenmoser's salt. A convenient synthesis of terminal olefins.. Tetrahedron Letters, 1977, 18, 1299-1302.	1.4	18
140	Synthesis of ammonium analogs of carbocationic intermediates in the conversion of presqualene diphosphate to squalene. Journal of Organic Chemistry, 1988, 53, 5903-5908.	3.2	18
141	(trans-2'-Methylcyclopropyl)methyl system. Stereochemistry of ionization, rearrangement, and solvent capture. Journal of the American Chemical Society, 1974, 96, 7591-7593.	13.7	17
142	Farnesylpyrophosphate synthetase. A case for common electrophilic mechanisms for prenyltransferases and terpene cyclases. Journal of the American Chemical Society, 1985, 107, 5277-5279.	13.7	17
143	The Sorbitol Phosphotransferase System Is Responsible for Transport of 2- C -Methyl- d -Erythritol into Salmonella enterica Serovar Typhimurium. Journal of Bacteriology, 2004, 186, 473-480.	2.2	17
144	Proton Exchange in Type II Isopentenyl Diphosphate Isomerase. Organic Letters, 2004, 6, 5019-5021.	4.6	17

#	Article	IF	Citations
145	Bioorganic Chemistry. A Natural Reunion of the Physical and Life Sciences. Journal of Organic Chemistry, 2009, 74, 2631-2645.	3.2	17
146	Synthesis and Evaluation of Chlorinated Substrate Analogues for Farnesyl Diphosphate Synthase. Journal of Organic Chemistry, 2011, 76, 1838-1843.	3.2	17
147	[20] Purification of farnesylpyrophosphate synthetase by affinity chromatography. Methods in Enzymology, 1985, 110, 171-184.	1.0	16
148	Synthesis of 4-Diphosphocytidyl-2-C-methyl-d-erythritol and 2-C-Methyl-d-erythritol-4-phosphate. Journal of Organic Chemistry, 2002, 67, 5416-5418.	3.2	16
149	Isopentenyl Diphosphate Isomerase. Mechanism-Based Inhibition by Diene Analogues of Isopentenyl Diphosphate and Dimethylallyl Diphosphate. Journal of the American Chemical Society, 2005, 127, 17433-17438.	13.7	16
150	Regioselective Covalent Immobilization of Catalytically Active Glutathione S-Transferase on Glass Slides. Bioconjugate Chemistry, 2013, 24, 571-577.	3.6	16
151	Structureâ€"Function Studies of Artemisia tridentata Farnesyl Diphosphate Synthase and Chrysanthemyl Diphosphate Synthase by Site-Directed Mutagenesis and Morphogenesis. Journal of the American Chemical Society, 2017, 139, 14556-14567.	13.7	16
152	Solvolysis and degenerate cyclopropylcarbinyl-cyclopropylcarbinyl rearrangement of a hexamethylcyclopropylcarbinyl system. Journal of the American Chemical Society, 1969, 91, 3650-3652.	13.7	15
153	Synthesis and Evaluation of 1-Deoxy-d-xylulose 5-Phosphate Analogues as Chelation-Based Inhibitors of Methylerythritol Phosphate Synthase. Journal of Organic Chemistry, 2005, 70, 9955-9959.	3.2	15
154	Cyclopropylcarbinyl-allyl rearrangement of a hexamethylcyclopropylcarbinyl system. Journal of the American Chemical Society, 1969, 91, 3649-3650.	13.7	14
155	Photoisomerizations of cis- and trans-3-methylenecyclodecene. Journal of the American Chemical Society, 1970, 92, 7408-7412.	13.7	14
156	Crystal Structure of Cucumene Synthase, a Terpenoid Cyclase That Generates a Linear Triquinane Sesquiterpene. Biochemistry, 2018, 57, 6326-6335.	2.5	14
157	Efficient syntheses of [3-15N]uracil and [3-15N]thymine. Nucleic Acids Research, 1983, 11, 6497-6504.	14.5	13
158	Braunicene. Absolute stereochemistry of the cyclohexane ring. Journal of Organic Chemistry, 1988, 53, 4089-4094.	3.2	13
159	The Journal of Organic Chemistry Celebrates 75 Years of Publication. Journal of Organic Chemistry, 2010, 75, 1-1.	3.2	13
160	Type-2 Isopentenyl Diphosphate Isomerase: Evidence for a Stepwise Mechanism. Journal of the American Chemical Society, 2011, 133, 19017-19019.	13.7	13
161	Mechanistic Studies of the Protonationâ€"Deprotonation Reactions for Type 1 and Type 2 Isopentenyl Diphosphate:Dimethylallyl Diphosphate Isomerase. Journal of the American Chemical Society, 2018, 140, 12900-12908.	13.7	13
162	.alpha.,.alpha.,2,2,3,3-Hexamethylcyclopropylcarbinyl system. Carbonium ion behavior in nucleophilic and superacid solvents. Journal of the American Chemical Society, 1972, 94, 2297-2305.	13.7	12

#	Article	IF	Citations
163	Model studies in terpene biosynthesis. Journal of Agricultural and Food Chemistry, 1974, 22, 167-173.	5.2	12
164	Model studies of the biosynthesis of non-head-to-tail terpenes. Stereochemistry of ionization for N-methyl-4-[(1S,1'R,3'R)-[1-2H]chrysanthemyloxy]pyridinium iodide. Journal of the American Chemical Society, 1977, 99, 3824-3829.	13.7	12
165	Synthesis of (R)-[2-2H]Isopentenyl Diphosphate and Determination of Its Enantiopurity by2H NMR Spectroscopy in a Lyotropic Medium. Organic Letters, 1999, 1, 1067-1070.	4.6	12
166	Lethal Mutations in the Isoprenoid Pathway of Salmonella enterica. Journal of Bacteriology, 2006, 188, 1444-1450.	2.2	12
167	Regio- and Chemoselective Immobilization of Proteins on Gold Surfaces. Bioconjugate Chemistry, 2014, 25, 269-275.	3.6	12
168	Isoprenoid Biosynthesis in Pathogenic Bacteria: Nuclear Resonance Vibrational Spectroscopy Provides Insight into the Unusual [4Feâ€4S] Cluster of the E.â€...coli LytB/IspH Protein. Angewandte Chemie - International Edition, 2015, 54, 12584-12587.	13.8	12
169	Î´-Deuterium Isotope Effects as Probes for Transition-State Structures of Isoprenoid Substrates. Journal of Organic Chemistry, 2014, 79, 3572-3580.	3.2	11
170	Solvolysis of 1-chlorobicyclo[3.3.1]nonane. Journal of Organic Chemistry, 1968, 33, 1237-1239.	3.2	10
171	Extension of the HA acidity function into oleum mixtures. Journal of the American Chemical Society, 1975, 97, 1797-1801.	13.7	10
172	Isobraunicene, wolficene, and isowolficene. New cyclic 1'-3 fused isoprenoids from Botryococcus braunii. Journal of Organic Chemistry, 1988, 53, 5390-5392.	3.2	10
173	Absolute Configuration of Hydroxysqualene. An Intermediate in Bacterial Hopanoid Biosynthesis. Organic Letters, 2016, 18, 512-515.	4.6	10
174	Synthesis of Geranyl S-Thiolodiphosphate. A New Alternative Substrate/Inhibitor for Prenyltransferases. Organic Letters, 2000, 2, 2287-2289.	4.6	9
175	Monitoring the three enzymatic activities involved in posttranslational modifications of Ras proteins. Analytica Chimica Acta, 2004, 521, 1-7.	5.4	9
176	Determination of Kinetics and the Crystal Structure of a Novel Type 2 Isopentenyl Diphosphate: Dimethylallyl Diphosphate Isomerase from Streptococcus pneumoniae. ChemBioChem, 2014, 15, 1452-1458.	2.6	9
177	Recombinant Squalene Synthase. Synthesis of Cyclopentyl Non-Head-to-Tail Triterpenes. Journal of Organic Chemistry, 2009, 74, 7562-7565.	3.2	8
178	Novel route to chaetomellic acid A and analogues: Serendipitous discovery of a more competent FTase inhibitor. Bioorganic and Medicinal Chemistry, 2013, 21, 348-358.	3.0	8
179	Direct observation of uracil dication and related derivatives. Tetrahedron Letters, 1972, 13, 3823-3826.	1.4	7
180	Model studies of terpene biosynthesis. Synthesis and absolute configuration of (+)-trans-2,2-dimethyl-3-(2'-methylpropenyl)cyclobutanol. Journal of Organic Chemistry, 1974, 39, 3288-3291.	3.2	7

#	Article	IF	Citations
181	Model studies of terpene biosynthesis. Intermolecular 1'-2 electrophilic condensation of 3-methyl-2-butenyl acetate. Journal of the American Chemical Society, 1982, 104, 1413-1420.	13.7	7
182	Mutagenesis of Isopentenyl Phosphate Kinase To Enhance Geranyl Phosphate Kinase Activity. ACS Chemical Biology, 2012, 7, 1241-1246.	3.4	7
183	Model studies of terpene biosynthesis. Stereoselective ionization of N-methyl-4-[(.alpha.S,1R,3R)-chrysanthemyloxy]pyridinum-d1 iodide. Journal of the American Chemical Society, 1972, 94, 5515-5516.	13.7	6
184	An efficient synthesis of [8-13C]adenine. Journal of Organic Chemistry, 1988, 53, 1322-1323.	3.2	6
185	Yeast Protein Farnesyltransferase. Binding ofS-Alkyl Peptides and Related Analogues. Organic Letters, 1999, 1, 815-817.	4.6	6
186	Synthesis of Methylerythritol Phosphate Analogues and Their Evaluation as Alternate Substrates for IspDF and IspE from Agrobacterium tumefaciens. Journal of Organic Chemistry, 2014, 79, 9170-9178.	3.2	6
187	Sandwich Antibody Arrays Using Recombinant Antibody-Binding Protein L. Langmuir, 2014, 30, 6629-6635.	3.5	6
188	Site-Selective Synthesis of ¹⁵N- and ¹³C-Enriched Flavin Mononucleotide Coenzyme Isotopologues. Journal of Organic Chemistry, 2016, 81, 5087-5092.	3.2	6
189	Model studies of terpene biosynthesis. Cationic rearrangements leading to head-to-head terpenes. Journal of the American Chemical Society, 1972, 94, 5921-5923.	13.7	5
190	Model studies of terpene biosynthesis. Synthesis of (+)-2-[trans-2'-(2''-methylpropenyl)cyclopropyl]propan-2-ol. Journal of Organic Chemistry, 1975, 40, 139-140.	3.2	5
191	Mechanistic Studies of the Prenyl Transfer Reaction with Fluorinated Substrate Analogs. ACS Symposium Series, 1996, , 158-168.	0.5	5
192	Non-head-to-tail monoterpenes. Synthesis of (S)-lyratol and (S)-lyratyl acetate from (1R,3R)-chrysanthemic acid. Journal of Organic Chemistry, 1979, 44, 2441-2444.	3.2	4
193	Reporting Analytical Data. Journal of Organic Chemistry, 2009, 74, 6415-6415.	3.2	4
194	Kinetic and Binding Studies of Streptococcus pneumoniae Type 2 Isopentenyl Diphosphate:Dimethylallyl Diphosphate Isomerase. Biochemistry, 2016, 55, 2260-2268.	2.5	4
195	Further Insight into Crystal Structures of Escherichia coli IspH/LytB in Complex with Two Potent Inhibitors of the MEP Pathway: A Starting Point for Rational Design of New Antimicrobials. ChemBioChem, 2017, 18, 2137-2144.	2.6	4
196	Stereospecific5JHî—¸H and 6JHî—¸H couplings in 3-methyl-3-azabicyclo[3.1.0.] hexan-2,4-dione1. Tetrahedron Letters, 1971, 12, 2255-2258.	1.4	3
197	Tetartohedral twinning in IDI-2 fromThermus thermophilus: crystallization under anaerobic conditions. Acta Crystallographica Section F, Structural Biology Communications, 2014, 70, 347-349.	0.8	3
198	Synthesis and Enzymatic Studies of Bisubstrate Analogues for Farnesyl Diphosphate Synthase. Journal of Organic Chemistry, 2015, 80, 3902-3913.	3.2	3

#	Article	IF	Citations
199	Construction of Functional Monomeric Type 2 Isopentenyl Diphosphate:Dimethylallyl Diphosphate Isomerase. Biochemistry, 2016, 55, 4229-4238.	2.5	3
200	Synthesis and Enzymatic Studies of Isoprenoid Thiolo Bisubstrate Analogues. Journal of Organic Chemistry, 2016, 81, 5093-5100.	3.2	2
201	[11] Reversed-phase high-performance liquid chromatography of C5 to C20 isoprenoid benzoates and naphthoates. Methods in Enzymology, 1985, 111, 252-263.	1.0	1
202	The Journal of Organic Chemistry Implements Brief Communications. Journal of Organic Chemistry, 2011, 76, 3615-3615.	3.2	1
203	The Journal of Organic Chemistry Outstanding Author Award. Journal of Organic Chemistry, 2013, 78, 211-211.	3.2	1
204	Howard Elliott Zimmerman. Journal of Organic Chemistry, 2013, 78, 1707-1708.	3.2	1
205	Editorial for the Special Issue on Mechanisms in Metal-Based Organic Chemistry. Journal of Organic Chemistry, 2014, 79, 11829-11829.	3.2	1
206	Linking the Biological and Synthetic Worlds. Bioconjugate Chemistry, 2015, 26, 1158-1158.	3.6	1
207	MPSA abstracts. The Protein Journal, 1994, 13, 515-543.	1.1	0
208	Unintended Consequences?. Journal of Organic Chemistry, 2004, 69, 1761-1761.	3.2	0
209	JOCSynopses. Journal of Organic Chemistry, 2011, 76, 2385-2385.	3.2	0
210	The Journal of Organic Chemistry Implements Brief Communications. Organic Letters, 2011, 13, 2515-2515.	4.6	0
211	Fifteen Years with JOC. Journal of Organic Chemistry, 2016, 81, 12073-12074.	3.2	0