John T Groves

List of Publications by Year
in descending order

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		5268	7745
211	24,462	83	150
papers	citations	h-index	g-index

244	244	244	12940
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hydroxylation and epoxidation catalyzed by iron-porphine complexes. Oxygen transfer from iodosylbenzene. Journal of the American Chemical Society, 1979, 101, 1032-1033.	13.7	807
2	High-valent iron-porphyrin complexes related to peroxidase and cytochrome P-450. Journal of the American Chemical Society, 1981, 103, 2884-2886.	13.7	716
3	Oxygen Activation and Radical Transformations in Heme Proteins and Metalloporphyrins. Chemical Reviews, 2018, 118, 2491-2553.	47.7	686
4	High-valent iron in chemical and biological oxidations. Journal of Inorganic Biochemistry, 2006, 100, 434-447.	3.5	565
5	Aliphatic hydroxylation by highly purified liver microsomal cytochrome P-450. Evidence for a carbon radical intermediate. Biochemical and Biophysical Research Communications, 1978, 81, 154-160.	2.1	535
6	Oxidative Aliphatic C-H Fluorination with Fluoride Ion Catalyzed by a Manganese Porphyrin. Science, 2012, 337, 1322-1325.	12.6	478
7	Catalytic asymmetric epoxidations with chiral iron porphyrins. Journal of the American Chemical Society, 1983, 105, 5791-5796.	13.7	477
8	Aliphatic hydroxylation via oxygen rebound. Oxygen transfer catalyzed by iron. Journal of the American Chemical Society, 1976, 98, 859-861.	13.7	476
9	Epoxidation reactions catalyzed by iron porphyrins. Oxygen transfer from iodosylbenzene. Journal of the American Chemical Society, 1983, 105, 5786-5791.	13.7	474
10	Aerobic epoxidation of olefins with ruthenium porphyrin catalysts. Journal of the American Chemical Society, 1985, 107, 5790-5792.	13.7	440
11	Key elements of the chemistry of cytochrome P-450: The oxygen rebound mechanism. Journal of Chemical Education, 1985, 62, 928.	2.3	421
12	Detection and Characterization of an Oxomanganese(V) Porphyrin Complex by Rapid-Mixing Stopped-Flow Spectrophotometry. Journal of the American Chemical Society, 1997, 119, 6269-6273.	13.7	418
13	Hydrocarbon oxidations with oxometalloporphinates. Isolation and reactions of a (porphinato)manganese(V) complex. Journal of the American Chemical Society, 1980, 102, 6375-6377.	13.7	373
14	Manganese Catalyzed Câ€“H Halogenation. Accounts of Chemical Research, 2015, 48, 1727-1735.	15.6	373
15	Aliphatic hydroxylation catalyzed by iron porphyrin complexes. Journal of the American Chemical Society, 1983, 105, 6243-6248.	13.7	367
16	Asymmetric hydroxylation, epoxidation, and sulfoxidation catalyzed by vaulted binaphthyl metalloporphyrins. Journal of Organic Chemistry, 1990, 55, 3628-3634.	3.2	347
17	Reactive iron porphyrin derivatives related to the catalytic cycles of cytochrome P-450 and peroxidase. Studies of the mechanism of oxygen activation. Journal of the American Chemical Society, 1988, 110, 8443-8452.	13.7	318
18	The bioinorganic chemistry of iron in oxygenases and supramolecular assemblies. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3569-3574.	7.1	312

#	Article	IF	Citations
19	Efficient water oxidation catalyzed by homogeneous cationic cobalt porphyrins with critical roles for the buffer base. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15579-15584.	7.1	312
20	Synthesis, characterization, and reactivity of oxomanganese(IV) porphyrin complexes. Journal of the American Chemical Society, 1988, 110, 8628-8638.	13.7	285
21	Biomimetic Synthesis of Macroscopic-Scale Calcium Carbonate Thin Films. Evidence for a Multistep Assembly Process. Journal of the American Chemical Society, 1998, 120, 11977-11985.	13.7	277
22	Manganese Porphyrins Catalyze Selective Câ’H Bond Halogenations. Journal of the American Chemical Society, 2010, 132, 12847-12849.	13.7	273
23	Manganese-Catalyzed Late-Stage Aliphatic Câ€“H Azidation. Journal of the American Chemical Society, 2015, 137, 5300-5303.	13.7	270
24	Structural characterization of horseradish peroxidase using EXAFS spectroscopy. Evidence for Fe = O ligation in compounds I and II. Journal of the American Chemical Society, 1986, 108, 7819-7825.	13.7	263
25	Potent Metalloporphyrin Peroxynitrite Decomposition Catalyst Protects Against the Development of Doxorubicin-Induced Cardiac Dysfunction. Circulation, 2003, 107, 896-904.	1.6	263
26	Preparation and Reactivity of Oxoiron(IV) Porphyrins. Inorganic Chemistry, 1994, 33, 5065-5072.	4.0	240
27	Unusual Kinetic Stability of a Ground-State Singlet Oxomanganese(V) Porphyrin. Evidence for a Spin State Crossing Effect. Journal of the American Chemical Society, 1999, 121, 2923-2924.	13.7	240
28	Beyond ferryl-mediated hydroxylation: 40Âyears of the rebound mechanism and Câ€“H activation. Journal of Biological Inorganic Chemistry, 2017, 22, 185-207.	2.6	238
29	Activation and transfer of nitrogen from a nitridomanganese(V) porphyrin complex. Aza analog of epoxidation. Journal of the American Chemical Society, 1983, 105, 2073-2074.	13.7	232
30	Hydroxylation by cytochrome P-450 and metalloporphyrin models. Evidence for allylic rearrangement. Journal of the American Chemical Society, 1984, 106, 2177-2181.	13.7	227
31	Manganeseâ€Catalyzed Oxidative Benzylic Câ€“H Fluorination by Fluoride Ions. Angewandte Chemie - International Edition, 2013, 52, 6024-6027.	13.8	219
32	Asymmetric hydroxylation by a chiral iron porphyrin. Journal of the American Chemical Society, 1989, 111, 8537-8538.	13.7	214
33	Late Stage Benzylic Câ€“H Fluorination with [¹⁸F]Fluoride for PET Imaging. Journal of the American Chemical Society, 2014, 136, 6842-6845.	13.7	206
34	Peroxynitrite: reactive, invasive and enigmatic. Current Opinion in Chemical Biology, 1999, 3, 226-235.	6.1	203
35	The mechanism of olefin epoxidation by oxo-iron porphyrins. Direct observation of an intermediate. Journal of the American Chemical Society, 1986, 108, 507-508.	13.7	196
36	Preparation and characterization of an oxoporphinatochromium(V) complex. Journal of the American Chemical Society, 1979, 101, 7613-7615.	13.7	192

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37	Nitric oxide synthase: models and mechanisms. Current Opinion in Chemical Biology, 2000, 4, 687-695.	6.1	191
38	Olefin epoxidation by manganese (IV) porphyrins: evidence for two reaction pathways. Journal of the American Chemical Society, 1987, 109, 3812-3814.	13.7	182
39	Continuous Crystalline Carbonate Apatite Thin Films. A Biomimetic Approach. Journal of the American Chemical Society, 2001, 123, 2196-2203.	13.7	178
40	Langmuirâ^'Blodgett Films of Regioregular Poly(3-hexylthiophene) as Field-Effect Transistors. Langmuir, 2000, 16, 1834-1841.	3.5	175
41	Oxomanganese(IV) porphyrins identified by resonance Raman and infrared spectroscopy. Weak bonds and the stability of the half-filled t2g subshell. Journal of the American Chemical Society, 1988, 110, 4158-4165.	13.7	172
42	A Highly Reactive P450 Model Compound I. Journal of the American Chemical Society, 2009, 131, 9640-9641.	13.7	172
43	Mechanisms of Iron Porphyrin Reactions with Peroxynitrite. Journal of the American Chemical Society, 1998, 120, 7493-7501.	13.7	171
44	Models of oxidized heme proteins. Preparation and characterization of a trans-dioxoruthenium(VI) porphyrin complex. Inorganic Chemistry, 1984, 23, 3844-3846.	4.0	165
45	Rapid Catalytic Oxygenation of Hydrocarbons by Ruthenium Pentafluorophenylporphyrin Complexes:Â Evidence for the Involvement of a Ru(III) Intermediate. Journal of the American Chemical Society, 1996, 118, 8961-8962.	13.7	162
46	Manganese Porphyrins as Redox-Coupled Peroxynitrite Reductases. Journal of the American Chemical Society, 1998, 120, 6053-6061.	13.7	162
47	Part I: Pathogenetic Role of Peroxynitrite in the Development of Diabetes and Diabetic Vascular Complications: Studies With FP15, A Novel Potent Peroxynitrite Decomposition Catalyst. Molecular Medicine, 2002, 8, 571-580.	4.4	162
48	Regioselective oxidation catalysis in synthetic phospholipid vesicles. Membrane-spanning steroidal metalloporphyrins. Journal of the American Chemical Society, 1989, 111, 2900-2909.	13.7	160
49	Immune-modulating enzyme indoleamine 2,3-dioxygenase is effectively inhibited by targeting its apo-form. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3249-3254.	7.1	157
50	Tetraphilin: a four-helix proton channel built on a tetraphenylporphyrin framework. Journal of the American Chemical Society, 1992, 114, 9656-9657.	13.7	151
51	Revisiting the Mechanism of P450 Enzymes with the Radical Clocks Norcarane and Spiro[2,5]octane. Journal of the American Chemical Society, 2002, 124, 6020-6027.	13.7	148
52	Taming Azide Radicals for Catalytic Câ€“H Azidation. ACS Catalysis, 2016, 6, 751-759.	11.2	147
53	Trans-dioxo Manganese(V) Porphyrins. Journal of the American Chemical Society, 2007, 129, 12416-12417.	13.7	144
54	Role for nitrosative stress in diabetic neuropathy: evidence from studies with a peroxynitrite decomposition catalyst. FASEB Journal, 2005, 19, 1-21.	0.5	138

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55	Oxygen activation by metalloporphyrins. Formation and decomposition of an acylperoxymanganese(III) complex. Journal of the American Chemical Society, 1983, 105, 4489-4490.	13.7	136
56	Using push to get pull. Nature Chemistry, 2014, 6, 89-91.	13.6	133
57	Targeted Fluorination with the Fluoride Ion by Manganeseâ€Catalyzed Decarboxylation. Angewandte Chemie - International Edition, 2015, 54, 5241-5245.	13.8	129
58	Stereospecific aliphatic hydroxylation by iron-hydrogen peroxide. Evidence for a stepwise process. Journal of the American Chemical Society, 1976, 98, 5290-5297.	13.7	127
59	Selective hydroxylation of alkanes by an extracellular fungal peroxygenase. FEBS Journal, 2011, 278, 3667-3675.	4.7	124
60	Mycobactin-mediated iron acquisition within macrophages. , 2005, 1, 149-153.		123
61	Cytochrome c causes pore formation in cardiolipin-containing membranes. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 6269-6274.	7.1	119
62	Preparation and Characterization of a Dialkoxyiron(IV) Porphyrin. Journal of the American Chemical Society, 1985, 107, 354-360.	13.7	117
63	Oxygen activation by metalloporphyrins related to peroxidase and cytochrome P-450. Direct observation of the oxygen-oxygen bond cleavage step. Journal of the American Chemical Society, 1986, 108, 7834-7836.	13.7	114
64	Chameleon States: High-Valent Metal-Oxo Species of Cytochrome P450 and Its Ruthenium Analogue. Angewandte Chemie - International Edition, 2001, 40, 2874-2878.	13.8	114
65	Detection and Kinetic Characterization of a Highly Reactive Hemeâ€“Thiolate Peroxygenase Compound I. Journal of the American Chemical Society, 2012, 134, 12897-12900.	13.7	114
66	Nitrous Oxide Activation by a Ruthenium Porphyrin. Journal of the American Chemical Society, 1995, 117, 5594-5595.	13.7	108
67	Rapid, Reversible Oxygen Atom Transfer between an Oxomanganese(V) Porphyrin and Bromide: A Haloperoxidase Mimic with Enzymatic Rates. Angewandte Chemie - International Edition, 2000, 39, 3849-3851.	13.8	107
68	Electronic Structure and Reactivity of Isomeric Oxo-Mn(V) Porphyrins:Â Effects of Spin-State Crossing and pKaModulation. Inorganic Chemistry, 2006, 45, 4268-4276.	4.0	107
69	Role of nitrosative stress in early neuropathy and vascular dysfunction in streptozotocin-diabetic rats. American Journal of Physiology - Endocrinology and Metabolism, 2007, 293, E1645-E1655.	3.5	107
70	Biomimetic Oxygenations Related to Cytochrome P450: Metal-Oxo and Metal-Peroxo Intermediates. , 2000, , 91-169.		106
71	Radical Intermediates in Monooxygenase Reactions of Rieske Dioxygenases. Journal of the American Chemical Society, 2007, 129, 3514-3515.	13.7	105
72	Synthesis, characterization, and molecular structure of oxo(porphyrinato)chromium(IV) complexes. Inorganic Chemistry, 1982, 21, 1363-1368.	4.0	104

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73	Membrane-spanning steroidal metalloporphyrins as site-selective catalysts in synthetic vesicles. Journal of the American Chemical Society, 1987, 109, 5045-5047.	13.7	103
74	Synthesis and molecular structure of a nitrido(porphyrinato)chromium(V) complex. Inorganic Chemistry, 1983, 22, 884-887.	4.0	102
75	Peroxynitrite-Induced DNA Strand Scission Mediated by a Manganese Porphyrin. Journal of the American Chemical Society, 1995, 117, 9578-9579.	13.7	100
76	Hydrogen-deuterium exchange during propylene epoxidation by cytochrome P-450. Journal of the American Chemical Society, 1986, 108, 3837-3838.	13.7	96
77	Cyclopropenyl cation. Synthesis and characterization. Journal of the American Chemical Society, 1970, 92, 984-987.	13.7	93
78	Mechanisms of Peroxynitrite Decomposition Catalyzed by FeTMPS, a Bioactive Sulfonated Iron Porphyrin. Archives of Biochemistry and Biophysics, 2001, 387, 307-317.	3.0	92
79	Stereospecific aliphatic hydroxylation by an iron-based oxidant. Journal of the American Chemical Society, 1974, 96, 5274-5275.	13.7	91
80	A â€œPushâ^'Pullâ€•Mechanism for Heterolytic Oâ^'O Bond Cleavage in Hydroperoxo Manganese Porphyrins. Inorganic Chemistry, 2010, 49, 11516-11524.	4.0	90
81	Cyclopropenyl cation. Journal of the American Chemical Society, 1967, 89, 5048-5048.	13.7	89
82	Multi-Heme Self-Assembly in Phospholipid Vesicles. Journal of the American Chemical Society, 1996, 118, 2347-2358.	13.7	88
83	Reactivity and mechanisms of metalloporphyrin-catalyzed oxidations. Journal of Porphyrins and Phthalocyanines, 2000, 04, 350-352.	0.8	87
84	Myoglobin Catalyzes Its Own Nitration. Journal of the American Chemical Society, 2001, 123, 5142-5143.	13.7	87
85	Fast Catalytic Hydroxylation of Hydrocarbons with Ruthenium Porphyrins. Inorganic Chemistry, 2006, 45, 4769-4782.	4.0	86
86	A peroxynitrite decomposition catalyst counteracts sensory neuropathy in streptozotocin-diabetic mice. European Journal of Pharmacology, 2007, 569, 48-58.	3.5	86
87	Characterization of an oxoruthenium(IV) porphyrin complex. Inorganic Chemistry, 1987, 26, 3831-3833.	4.0	85
88	Intermediate Q from Soluble Methane Monooxygenase Hydroxylates the Mechanistic Substrate Probe Norcarane:Â Evidence for a Stepwise Reaction. Journal of the American Chemical Society, 2001, 123, 11831-11837.	13.7	85
89	Porphyrin Amphiphiles as Templates for the Nucleation of Calcium Carbonate. Journal of the American Chemical Society, 1997, 119, 5449-5450.	13.7	82
90	Chlorocyclopropenes, chlorocyclopropenyl cations, and cyclopropenone. Journal of the American Chemical Society, 1970, 92, 988-993.	13.7	80

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91	Geometrical and stereochemical factors in metal-promoted amide hydrolysis. Journal of the American Chemical Society, 1984, 106, 630-638.	13.7	80
92	Peroxynitrite Mediates Active Site Tyrosine Nitration in Manganese Superoxide Dismutase. Evidence of a Role for the Carbonate Radical Anion. Journal of the American Chemical Society, 2010, 132, 17174-17185.	13.7	80
93	Mechanisms of Peroxynitrite Interactions with Heme Proteins. Inorganic Chemistry, 2010, 49, 6317-6329.	4.0	79
94	MÃ¶ssbauer effect study of tight spin coupling in oxidized chloroâ€5,10,15,20â€tetra(mesityl)porphyrinatoiron(III). Journal of Chemical Physics, 1983, 79, 1122-1126.	3.0	78
95	The Non-Heme Diiron Alkane Monooxygenase of Pseudomonas oleovorans (AlkB) Hydroxylates via a Substrate Radical Intermediate. Journal of the American Chemical Society, 2000, 122, 11747-11748.	13.7	77
96	Models and Mechanisms of Cytochrome P450 Action. , 2005, , 1-43.		77
97	Heme-thiolate ferryl of aromatic peroxygenase is basic and reactive. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3686-3691.	7.1	77
98	Electrochemical generation of an iron(IV) porphyrin. Inorganic Chemistry, 1986, 25, 123-125.	4.0	76
99	Site-selective ¹⁸F fluorination of unactivated Câ€“H bonds mediated by a manganese porphyrin. Chemical Science, 2018, 9, 1168-1172.	7.4	76
100	Dynamics of Carbon Monoxide Binding to Cystathionine Î²-Synthase. Journal of Biological Chemistry, 2006, 281, 13433-13438.	3.4	74
101	Alkane-oxidizing metalloenzymes in the carbon cycle. Metallomics, 2011, 3, 775.	2.4	74
102	Catalysis of superoxide dismutation by iron-ethylenediaminetetraacetic acid complexes. Mechanism of the reaction and evidence for the direct formation of an iron(III)-ethylenediaminetetraacetic acid peroxo complex from the reaction of superoxide with iron(II)-ethylenediaminetetraacetic acid. Journal of the American Chemical Society, 1977, 99, 5220-5222.	13.7	73
103	Rapid decomposition of peroxynitrite by manganese porphyrin-antioxidant redox couples. Bioorganic and Medicinal Chemistry Letters, 1997, 7, 2913-2918.	2.2	73
104	Heterolytic and homolytic oxygen-oxygen bond cleavage reactions of acylperoxomanganese(III) porphyrins. Inorganic Chemistry, 1986, 25, 4808-4810.	4.0	72
105	Selective Câ€“H Halogenation with a Highly Fluorinated Manganese Porphyrin. Angewandte Chemie - International Edition, 2018, 57, 1251-1255.	13.8	72
106	Membrane Affinity of the Amphiphilic Marinobactin Siderophores. Journal of the American Chemical Society, 2002, 124, 13408-13415.	13.7	70
107	Enzymic regioselectivity in the hydroxylation of cholesterol catalyzed by a membrane-spanning metalloporphyrin. Journal of Organic Chemistry, 1988, 53, 3891-3893.	3.2	69
108	Preparation and characterization of an iron(III) porphyrin N-oxide. Journal of the American Chemical Society, 1986, 108, 7836-7837.	13.7	67

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109	Peroxynitrite and protein nitration in the pathogenesis of diabetic peripheral neuropathy. Diabetes/Metabolism Research and Reviews, 2014, 30, 669-678.	4.0	67
110	Rapid amide hydrolysis mediated by copper and zinc. Journal of the American Chemical Society, 1979, 101, 1033-1035.	13.7	66
111	Models of zinc-containing proteases. Catalysis of cobalt(III)-mediated amide hydrolysis by a pendant carboxylate. Journal of the American Chemical Society, 1989, 111, 5442-5448.	13.7	65
112	Mn(II)â^'Texaphyrin as a Catalyst for the Decomposition of Peroxynitrite. Journal of the American Chemical Society, 2001, 123, 3613-3614.	13.7	64
113	Direct Detection of the Oxygen Rebound Intermediates, Ferryl Mb and NO₂, in the Reaction of metMyoglobin with Peroxynitrite. Journal of the American Chemical Society, 2009, 131, 12979-12988.	13.7	64
114	Ferryl Protonation in Oxoiron(IV) Porphyrins and Its Role in Oxygen Transfer. Journal of the American Chemical Society, 2015, 137, 2875-2885.	13.7	63
115	Dynamics of Carbon Monoxide Binding to CooA. Journal of Biological Chemistry, 2004, 279, 21096-21108.	3.4	62
116	Single Vesicle Observations of the Cardiolipinâ^'CytochromecInteraction: Induction of Membrane Morphology Changes. Langmuir, 2011, 27, 6107-6115.	3.5	62
117	Selective CH Functionalization of Methane, Ethane, and Propane by a Perfluoroarene Iodine(III) Complex. Angewandte Chemie - International Edition, 2014, 53, 10490-10494.	13.8	62
118	The Enigmatic P450 Decarboxylase OleT Is Capable of, but Evolved To Frustrate, Oxygen Rebound Chemistry. Biochemistry, 2017, 56, 3347-3357.	2.5	62
119	Dehalogenations with sodium borohydride. Evidence for a free radical reaction. Journal of the American Chemical Society, 1974, 96, 6527-6529.	13.7	61
120	Nitrosative stress and peripheral diabetic neuropathy in leptin-deficient (ob/ob) mice. Experimental Neurology, 2007, 205, 425-436.	4.1	61
121	Models of zinc-containing proteases. Rapid amide hydrolysis by an unusually acidic Zn2+-OH2 complex. Inorganic Chemistry, 1985, 24, 2715-2717.	4.0	59
122	Cis-trans isomerization of epoxides catalyzed by ruthenium(II) porphyrins. Journal of the American Chemical Society, 1988, 110, 4217-4220.	13.7	59
123	A Conformational Switch to Î²-Sheet Structure in Cytochrome c Leads to Heme Exposure. Implications for Cardiolipin Peroxidation and Apoptosis. Journal of the American Chemical Society, 2007, 129, 504-505.	13.7	59
124	Alkyl Isocyanates via Manganese-Catalyzed Câ€“H Activation for the Preparation of Substituted Ureas. Journal of the American Chemical Society, 2017, 139, 15407-15413.	13.7	59
125	Hydroxylation and expoxidation reactions catalyzed by synthetic metalloporphyrinates. Models related to the active oxygen species of cytochrome P-450. Journal of Molecular Catalysis, 1980, 7, 169-177.	1.2	58
126	Anti-Markovnikov Hydrofunctionalization of Olefins Mediated by Rhodiumâ€“Porphyrin Complexes. Angewandte Chemie - International Edition, 2004, 43, 588-590.	13.8	58

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127	The peroxynitrite decomposition catalyst FP15 improves ageing-associated cardiac and vascular dysfunction. Mechanisms of Ageing and Development, 2007, 128, 173-181.	4.6	54
128	Sequence-specific cleavage of DNA by oligonucleotide-bound metal complexes. Inorganic Chemistry, 1993, 32, 3868-3872.	4.0	53
129	Catalytic Generation of Chlorine Dioxide from Chlorite Using a Waterâ€Soluble Manganese Porphyrin. Angewandte Chemie - International Edition, 2011, 50, 695-698.	13.8	53
130	Selective Monooxidation of Light Alkanes Using Chloride and Iodate. Journal of the American Chemical Society, 2014, 136, 8393-8401.	13.7	53
131	Oxidative cyclization of farnesyl acetate by a free radical path. Tetrahedron Letters, 1968, 9, 1837-1840.	1.4	52
132	Probing the Câ€“O Bond-Formation Step in Metalloporphyrin-Catalyzed Câ€“H Oxygenation Reactions. ACS Catalysis, 2017, 7, 4182-4188.	11.2	52
133	Preparation and characterization of an (acylperoxo)iron(III) porphyrin. Inorganic Chemistry, 1987, 26, 785-786.	4.0	50
134	Amphiphilic peroxynitrite decomposition catalysts in liposomal assemblies. Chemistry and Biology, 1997, 4, 845-858.	6.0	50
135	Parallel and Competitive Pathways for Substrate Desaturation, Hydroxylation, and Radical Rearrangement by the Non-heme Diiron Hydroxylase AlkB. Journal of the American Chemical Society, 2012, 134, 20365-20375.	13.7	50
136	Reaction mechanisms of non-heme diiron hydroxylases characterized in whole cells. Journal of Inorganic Biochemistry, 2005, 99, 1998-2006.	3.5	49
137	Modeling the haloperoxidases: Reversible oxygen atom transfer between bromide ion and an oxo-Mn(V) porphyrin. Journal of Inorganic Biochemistry, 2007, 101, 1786-1797.	3.5	49
138	Enzymatic Tailoring of Enterobactin Alters Membrane Partitioning and Iron Acquisition. ACS Chemical Biology, 2006, 1, 29-32.	3.4	48
139	Driving Force for Oxygenâ€Atom Transfer by Hemeâ€Thiolate Enzymes. Angewandte Chemie - International Edition, 2013, 52, 9238-9241.	13.8	48
140	Fast Hydrogen Atom Abstraction by a Hydroxo Iron(III) Porphyrazine. Journal of the American Chemical Society, 2017, 139, 3938-3941.	13.7	48
141	Evidence for a weak Mn:O bond and a non-porphyrin radical in manganese-substituted horseradish peroxidase compound I. Journal of the American Chemical Society, 1991, 113, 1838-1840.	13.7	44
142	Co-ordination of styrene oxide to a sterically hindered ruthenium(II) porphyrin. Journal of the Chemical Society Chemical Communications, 1990, , 436.	2.0	42
143	Molecular probes of the mechanism of cytochrome P450. Oxygen traps a substrate radical intermediate. Archives of Biochemistry and Biophysics, 2011, 507, 111-118.	3.0	42
144	Oxidative aliphatic C-H fluorination with manganese catalysts and fluoride ion. Nature Protocols, 2013, 8, 2348-2354.	12.0	42

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145	Intercalation of aminophenyl- and pyridinium-substituted porphyrins into zirconium hydrogen phosphate: evidence for substituent-derived orientational selectivity. Inorganic Chemistry, 1993, 32, 4509-4516.	4.0	41
146	Models of Nitric Oxide Synthase:Â Iron(III) Porphyrin-Catalyzed Oxidation of Fluorenone Oxime to Nitric Oxide and Fluorenone. Journal of the American Chemical Society, 1999, 121, 12094-12103.	13.7	41
147	Hindered rotation of axially coordinated 2-methylimidazoles in tetramesitylporphyrinato-iron(III) complexes. Tetrahedron, 1988, 44, 3225-3230.	1.9	40
148	DNA cleavage by a metal chelating tricationic porphyrin. Journal of the American Chemical Society, 1989, 111, 4998-5000.	13.7	40
149	Dissection of the Mechanism of Manganese Porphyrin-Catalyzed Chlorine Dioxide Generation. Inorganic Chemistry, 2011, 50, 10353-10362.	4.0	40
150	Phthalate ester toxicity in human cell cultures. Toxicology and Applied Pharmacology, 1975, 31, 283-289.	2.8	39
151	Polarized x-ray absorption near-edge structure of highly oxidized chromium porphyrins. Inorganic Chemistry, 1986, 25, 2255-2259.	4.0	38
152	Flavins Inhibit Human Cytomegalovirus UL80 Protease via Disulfide Bond Formationâ€. Biochemistry, 1996, 35, 5847-5855.	2.5	38
153	Biocompatible catalysis. Enzymic reduction of metalloporphyrin catalysts in phospholipid bilayers. Journal of the American Chemical Society, 1990, 112, 7796-7797.	13.7	36
154	Membrane Dynamics of the Amphiphilic Siderophore, Acinetoferrin. Journal of the American Chemical Society, 2005, 127, 1726-1736.	13.7	36
155	Cage Escape Competes with Geminate Recombination during Alkane Hydroxylation by the Diiron Oxygenase AlkB. Angewandte Chemie - International Edition, 2008, 47, 5232-5234.	13.8	36
156	Xylene monooxygenase, a membrane-spanning non-heme diiron enzyme that hydroxylates hydrocarbons via a substrate radical intermediate. Journal of Biological Inorganic Chemistry, 2003, 8, 733-740.	2.6	35
157	Remarkable Aliphatic Hydroxylation by the Diiron Enzyme Toluene 4-Monooxygenase in Reactions with Radical or Cation Diagnostic Probes Norcarane, 1,1-Dimethylcyclopropane, and 1,1-Diethylcyclopropaneâ€. Biochemistry, 2004, 43, 15688-15701.	2.5	35
158	Chemistry in the Center for Catalytic Hydrocarbon Functionalization: An Energy Frontier Research Center. Catalysis Letters, 2011, 141, 213-221.	2.6	35
159	Flavin-Catalyzed Insertion of Oxygen into Rheniumâ€“Methyl Bonds. Journal of the American Chemical Society, 2012, 134, 12920-12923.	13.7	34
160	The Diagnostic Substrate Bicyclohexane Reveals a Radical Mechanism for Bacterial Cytochrome P450 in Whole Cells. Angewandte Chemie - International Edition, 2006, 45, 8192-8194.	13.8	33
161	Manganese-Catalyzed Desaturation of N-Acyl Amines and Ethers. ACS Catalysis, 2019, 9, 9513-9517.	11.2	33
162	Synthesis, Structure, and Molecular Dynamics of Gallium Complexes of Schizokinen and the Amphiphilic Siderophore Acinetoferrin. Journal of the American Chemical Society, 2004, 126, 12065-12075.	13.7	32

#	Article	IF	Citations
163	Profiling Mechanisms of Alkane Hydroxylase Activity In Vivo Using the Diagnostic Substrate Norcarane. Chemistry and Biology, 2007, 14, 165-172.	6.0	31
164	E.s.r. evidence for chromium (V) porphyrinates. Journal of the Chemical Society Chemical Communications, 1981, , 1165.	2.0	30
165	9 Molecular Mechanism of Oxygen Activation by P-450. The Enzymes, 1992, , 405-452.	1.7	30
166	The importance of being selective. Nature, 1997, 389, 329-330.	27.8	30
167	Synthesis of Trithiolanes and Tetrathianes from Thiiranes Catalyzed by Ruthenium Salen Nitrosyl Complexes. Journal of the American Chemical Society, 2002, 124, 4770-4778.	13.7	30
168	Iron(IV) porphyrins from iron(III) porphyrin cation radicals. Journal of the Chemical Society Chemical Communications, 1984, , 1455.	2.0	27
169	Studies of the Mechanism of Oxygen Activation and Transfer Catalyzed by Cytochrome P 450. Advances in Chemistry Series, 1980, , 277-289.	0.6	26
170	Substrate specificity and reaction mechanism of purified alkane hydroxylase from the hydrocarbonoclastic bacterium Alcanivorax borkumensis (AbAlkB). Journal of Inorganic Biochemistry, 2013, 121, 46-52.	3.5	26
171	Reductive functionalization of a rhodium(iii)â€“methyl bond by electronic modification of the supporting ligand. Dalton Transactions, 2014, 43, 8273.	3.3	26
172	A general method for coupling unprotected peptides to bromoacetamido porphyrin templates. Tetrahedron Letters, 1994, 35, 6191-6194.	1.4	23
173	Mechanism of Hydrocarbon Functionalization by an Iodate/Chloride System: The Role of Ester Protection. ACS Catalysis, 2018, 8, 3138-3149.	11.2	23
174	Directed Multi-Heme Self-Assembly and Electron Transfer in a Model Membrane. Journal of the American Chemical Society, 1994, 116, 5477-5478.	13.7	22
175	Fishing for peroxidase protons. Science, 2014, 345, 142-143.	12.6	22
176	Potent Activation of Indoleamine 2,3-Dioxygenase by Polysulfides. Journal of the American Chemical Society, 2019, 141, 15288-15300.	13.7	22
177	Partial oxidation of light alkanes by periodate and chloride salts. Dalton Transactions, 2015, 44, 5294-5298.	3.3	21
178	Hemodextrin: a self-assembled cyclodextrinâ€“porphyrin construct that binds dioxygen. Biophysical Chemistry, 2003, 105, 639-648.	2.8	20
179	Selective Câ€™H Halogenation with a Highly Fluorinated Manganese Porphyrin. Angewandte Chemie, 2018, 130, 1265-1269.	2.0	19
180	Diaziridinones(2,3-diazacyclopropanones). Structure (x-ray). Thermal decomposition via a nitrenoid fragment. Journal of Organic Chemistry, 1978, 43, 922-925.	3.2	18

#	Article	IF	Citations
181	Paramagnetic1H-NMR relaxation probes of stereoselectivity in metalloporphyrin catalyzed olefin epoxidation. Chirality, 1998, 10, 106-119.	2.6	18
182	Catalytic peroxynitrite decomposition improves reperfusion injury after heart transplantation. Journal of Thoracic and Cardiovascular Surgery, 2012, 143, 1443-1449.	0.8	18
183	Metalloporphyrins in Oxidative Catalysis. Oxygen Transfer Reactions of Oxochromium Porphyrins. Israel Journal of Chemistry, 1985, 25, 148-154.	2.3	17
184	Carbon cluster compounds. Generation and reorganization of the homobullvalenyl cation, an 11-fold degenerate species. Journal of the American Chemical Society, 1977, 99, 4076-4082.	13.7	16
185	Biological Strategies for the Manipulation of Dioxygen.. Annals of the New York Academy of Sciences, 1986, 471, 99-107.	3.8	16
186	Identity and mechanisms of alkane-oxidizing metalloenzymes from deep-sea hydrothermal vents. Frontiers in Microbiology, 2013, 4, 109.	3.5	16
187	Chameleon States: High-Valent Metal-Oxo Species of Cytochrome P450 and its Ruthenium Analogue The research in HU was sponsored by the Binational German Israeli Foundation (GIF) and by the Israeli Ministry of Science, Culture and Sport. Partial support by the US National Science Foundation (CHE-9814301) to J.T.G. is acknowledged. F.O. thanks the EU for a Marie Curie Fellowship.. Angewandte Chemie - International Edition, 2001, 40, 2874-2878.	13.8	16
188	Theoretical Study of Reductive Functionalization of Methyl Ligands of Group 9 Complexes Supported by Two Bipyridyl Ligands: A Key Step in Catalytic Hydrocarbon Functionalization. Organometallics, 2014, 33, 1936-1944.	2.3	15
189	Mechanistic studies of an unusual epoxide-forming elimination of a Î²-hydroxyalkyl rhodium porphyrin. Chemical Communications, 2006, , 549-551.	4.1	14
190	Selective Photoâ€Oxygenation of Light Alkanes Using Iodine Oxides and Chloride. ChemCatChem, 2019, 11, 5045-5054.	3.7	14
191	DFT Mechanistic Study of Methane Mono-Esterification by Hypervalent Iodine Alkane Oxidation Process. Journal of Physical Chemistry C, 2019, 123, 15674-15684.	3.1	13
192	Stereospecific aliphatic hydroxylation upon photoreduction of iron (III). Tetrahedron Letters, 1975, 16, 1953-1956.	1.4	12
193	Zinc-Coordination Oligomers of Phenanthrolinylporphyrins. Organic Letters, 2003, 5, 1829-1832.	4.6	12
194	Host-guest interactions of cyclodextrins and metalloporphyrins: supramolecular building blocks toward artificial heme proteins. Journal of Porphyrins and Phthalocyanines, 2004, 08, 125-140.	0.8	12
195	Effects of FP15, a peroxynitrite decomposition catalyst on cardiac and pulmonary function after cardiopulmonary bypass. European Journal of Cardio-thoracic Surgery, 2012, 41, 391-396.	1.4	12
196	A reevaluation of iron binding by Mycobactin J. Journal of Biological Inorganic Chemistry, 2018, 23, 995-1007.	2.6	12
197	Cytochrome P450 enzymes: understanding the biochemical hieroglyphs. F1000Research, 0, 4, 178.	1.6	12
198	Designed double-strand DNA cleavage with chelate-appended porphyrins. Bioorganic and Medicinal Chemistry Letters, 1996, 6, 1595-1600.	2.2	9

#	Article	IF	Citations
199	Aerobic Partial Oxidation of Alkanes Using Photodriven Iron Catalysis. Inorganic Chemistry, 2022, 61, 759-766.	4.0	9
200	Manganese Catalyzed Partial Oxidation of Light Alkanes. ACS Catalysis, 2022, 12, 5356-5370.	11.2	9
201	Photoinduced charge flow inside an iron porphyrazine complex. Chemical Communications, 2019, 55, 13606-13609.	4.1	8
202	Rapid catalytic oxygenation of hydrocarbons with perhalogenated ruthenium porphyrin complexes. Studies in Surface Science and Catalysis, 1997, 110, 865-872.	1.5	7
203	Synthesis and structural modeling of the amphiphilic siderophore rhizobactin-1021 and its analogs. Bioorganic and Medicinal Chemistry Letters, 2005, 15, 3771-3774.	2.2	7
204	A stereochemical probe of the fate of carbon radicals oxidized by metals. Tetrahedron Letters, 1975, 16, 3113-3116.	1.4	5
205	Concise Modular Synthesis and NMR Structural Determination of Gallium Mycobactin T. Journal of Organic Chemistry, 2021, 86, 15453-15468.	3.2	4
206	Toxicity of the iron siderophore mycobactin J in mouse macrophages: Evidence for a hypoxia response. Journal of Inorganic Biochemistry, 2022, 227, 111669.	3.5	3
207	Studies of Câ€“H Activation and Functionalization: Combined Computational and Experimental Efforts to Elucidate Mechanisms, Principles, and Catalysts. Springer Series in Materials Science, 2021, , 767-806.	0.6	2
208	Reactivity and mechanisms of metalloporphyrinâ€•catalyzed oxidations. Journal of Porphyrins and Phthalocyanines, 2000, 4, 350-352.	0.8	2
209	RETROSPECTIVE: Edward I. Stiefel (1942-2006). Science, 2006, 314, 1406-1406.	12.6	1
210	An Amorphous to Crystalline Transition in the Formation of CaCO3Thin Films. Microscopy and Microanalysis, 2000, 6, 1072-1073.	0.4	0
211	anti-Markovnikov Hydrofunctionalization of Olefins Mediated by Rhodium-Porphyrin Complexes.. ChemInform, 2004, 35, no.	0.0	0