Alison Butler

List of Publications by Year
in descending order

121 papers	12,103 citations	23567 58 h-index	26613 107 g-index
129 all docs	129 docs citations	129 times ranked	9292 citing authors

#	Article	IF	Citations
1	Marine haloperoxidases. Chemical Reviews, 1993, 93, 1937-1944.	47.7	627
2	Vanadium Peroxide Complexes. Chemical Reviews, 1994, 94, 625-638.	47.7	564
3	Adaptive synergy between catechol and lysine promotes wet adhesion by surface salt displacement. Science, 2015, 349, 628-632.	12.6	557
4	Photochemical cycling of iron in the surface ocean mediated by microbial iron(iii)-binding ligands. Nature, 2001, 413, 409-413.	27.8	448
5	Competition among marine phytoplankton for different chelated iron species. Nature, 1999, 400, 858-861.	27.8	429
6	Microbial Iron Acquisition: Marine and Terrestrial Siderophores. Chemical Reviews, 2009, 109, 4580-4595.	47.7	407
7	Mesoporous Silicate Sequestration and Release of Proteins. Journal of the American Chemical Society, 1999, 121, 9897-9898.	13.7	369
8	Iodide accumulation provides kelp with an inorganic antioxidant impacting atmospheric chemistry. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6954-6958.	7.1	318
9	Self-Assembling Amphiphilic Siderophores from Marine Bacteria. Science, 2000, 287, 1245-1247.	12.6	308
10	The role of vanadium bromoperoxidase in the biosynthesis of halogenated marine natural products. Natural Product Reports, 2004, 21, 180.	10.3	307
11	Chemistry of Marine Ligands and Siderophores. Annual Review of Marine Science, 2009, 1, 43-63.	11.6	298
12	Mechanistic considerations of halogenating enzymes. Nature, 2009, 460, 848-854.	27.8	292
13	Coordination chemistry of vanadium in biological systems. Coordination Chemistry Reviews, 1991, 109, 61-105.	18.8	278
14	Acquisition and Utilization of Transition Metal Ions by Marine Organisms. , 1998, 281, 207-209.		250
15	Mechanistic considerations of the vanadium haloperoxidases. Coordination Chemistry Reviews, 1999, 187, 17-35.	18.8	245
16	A siderophore from a marine bacterium with an exceptional ferric ion affinity constant. Nature, 1993, 366, 455-458.	27.8	238
17	Catalytic activity of mesoporous silicate-immobilized chloroperoxidase. Journal of Molecular Catalysis B: Enzymatic, 2002, 17, 1-8.	1.8	237
18	Photochemical reactivity of siderophores produced by marine heterotrophic bacteria and cyanobacteria based on characteristic Fe(III) binding groups. Limnology and Oceanography, 2003, 48, 1069-1078.	3.1	217

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19	Biomimics of vanadium bromoperoxidase: Vanadium(V)-Schiff base catalyzed oxidation of bromide by hydrogen peroxide. Inorganic Chemistry, 1993, 32, 4754-4761.	4.0	202
20	Vanadium Bromoperoxidase-Catalyzed Biosynthesis of Halogenated Marine Natural Products. Journal of the American Chemical Society, 2004, 126, 15060-15066.	13.7	193
21	Determination of conditional stability constants and kinetic constants for strong model Fe-binding ligands in seawater. Marine Chemistry, 2000, 69, 1-17.	2.3	192
22	Petrobactin, a Photoreactive Siderophore Produced by the Oil-Degrading Marine Bacterium Marinobacter hydrocarbonoclasticus. Journal of the American Chemical Society, 2002, 124, 378-379.	13.7	187
23	Structure and membrane affinity of a suite of amphiphilic siderophores produced by a marine bacterium. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3754-3759.	7.1	175
24	Defining the Catecholâ€“Cation Synergy for Enhanced Wet Adhesion to Mineral Surfaces. Journal of the American Chemical Society, 2016, 138, 9013-9016.	13.7	157
25	Vanadium Haloperoxidase-Catalyzed Bromination and Cyclization of Terpenes. Journal of the American Chemical Society, 2003, 125, 3688-3689.	13.7	144
26	On The Mechanism of cis-Dioxovanadium(V)-Catalyzed Oxidation of Bromide by Hydrogen Peroxide: Evidence for a Reactive, Binuclear Vanadium(V) Peroxo Complex. Journal of the American Chemical Society, 1995, 117, 3475-3484.	13.7	138
27	Iron(III)â€“siderophore coordination chemistry: Reactivity of marine siderophores. Coordination Chemistry Reviews, 2010, 254, 288-296.	18.8	137
28	Structure of synechobactins, new siderophores of the marine cyanobacterium <i>Synechococcus</i> sp. PCC 7002. Limnology and Oceanography, 2005, 50, 1918-1923.	3.1	124
29	Vanadium haloperoxidases. Current Opinion in Chemical Biology, 1998, 2, 279-285.	6.1	122
30	Differential scanning calorimetry of copper-zinc-superoxide dismutase, the apoprotein, and its zinc-substituted derivatives. Biochemistry, 1988, 27, 950-958.	2.5	119
31	Marine Siderophores and Microbial Iron Mobilization. BioMetals, 2005, 18, 369-374.	4.1	118
32	Aerobactin production by a planktonic marine Vibrio sp. Limnology and Oceanography, 1993, 38, 1091-1097.	3.1	111
33	Oxovanadium(V) Alkoxo-Chloro Complexes of the Hydridotripyrazolylborates as Models for the Binding Site in Bromoperoxidase. Inorganic Chemistry, 1994, 33, 646-655.	4.0	111
34	A functional mimic of vanadium bromoperoxidase. Journal of the American Chemical Society, 1992, 114, 760-761.	13.7	105
35	Peroxidative Halogenation Catalyzed by Transition-Metal-Ion-Grafted Mesoporous Silicate Materials. Journal of the American Chemical Society, 1997, 119, 6921-6922.	13.7	105
36	On the Regiospecificity of Vanadium Bromoperoxidase. Journal of the American Chemical Society, 2001, 123, 3289-3294.	13.7	104

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37	Vanadium-51 NMR as a probe of vanadium(V) coorination to human apotransferrin. Journal of the American Chemical Society, 1989, 111, 2802-2809.	13.7	94
38	Photoreactivity of Iron(III)â^'Aerobactin:Â Photoproduct Structure and Iron(III) Coordination. Inorganic Chemistry, 2006, 45, 6028-6033.	4.0	91
39	Loihichelins Aâ^'F, a Suite of Amphiphilic Siderophores Produced by the Marine Bacterium Halomonas LOB-5. Journal of Natural Products, 2009, 72, 884-888.	3.0	90
40	Oxygen-17 NMR, Electronic, and Vibrational Spectroscopy of Transition Metal Peroxo Complexes:Â Correlation with Reactivity. Inorganic Chemistry, 1996, 35, 2378-2383.	4.0	79
41	Voltammetric estimation of iron(III) thermodynamic stability constants for catecholate siderophores isolated from marine bacteria and cyanobacteria. Marine Chemistry, 1995, 50, 179-188.	2.3	78
42	Siderophores and the Dissolution of Iron-Bearing Minerals in Marine Systems. Reviews in Mineralogy and Geochemistry, 2005, 59, 53-84.	4.8	74
43	Structure and membrane affinity of new amphiphilic siderophores produced by Ochrobactrum sp. SP18. Journal of Biological Inorganic Chemistry, 2006, 11, 633-641.	2.6	74
44	Molybdenum(VI)- and Tungsten(VI)-Mediated Biomimetic Chemistry of Vanadium Bromoperoxidase. Inorganic Chemistry, 1994, 33, 3269-3275.	4.0	72
45	Identification of a natural desferrioxamine siderophore produced by a marine bacterium. Limnology and Oceanography, 2001, 46, 420-424.	3.1	72
46	Catechol oxidation: considerations in the design of wet adhesive materials. Biomaterials Science, 2018, 6, 332-339.	5.4	72
47	Modeling the Catalytic Site of Vanadium Bromoperoxidase:Â Synthesis and Structural Characterization of Intramolecularly H-bonded Vanadium(V) Oxoperoxo Complexes, [VO(O2)(NH2pyg2)]K and [VO(O2)(BrNH2pyg2)]K. Inorganic Chemistry, 2002, 41, 161-163.	4.0	70
48	Membrane Affinity of the Amphiphilic Marinobactin Siderophores. Journal of the American Chemical Society, 2002, 124, 13408-13415.	13.7	70
49	Characterization of vanadium bromoperoxidase from Macrocystis and Fucus: reactivity of vanadium bromoperoxidase toward acyl and alkyl peroxides and bromination of amines. Biochemistry, 1990, 29, 7974-7981.	2.5	69
50	Investigation of the mechanism of iron acquisition by the marine bacterium <i>Alteromonas luteoviolaceus</i> : Characterization of siderophore production. Limnology and Oceanography, 1991, 36, 1783-1792.	3.1	69
51	Inhibition and inactivation of vanadium bromoperoxidase by the substrate hydrogen peroxide and further mechanistic studies. Biochemistry, 1995, 34, 12689-12696.	2.5	68
52	Structure of putrebactin, a new dihydroxamate siderophore produced by Shewanella putrefaciens. Journal of Biological Inorganic Chemistry, 1997, 2, 93-97.	2.6	68
53	Total synthesis and structure revision of petrobactin. Tetrahedron, 2003, 59, 2007-2014.	1.9	68
54	Petrobactin Sulfonate, a New Siderophore Produced by the Marine BacteriumMarinobacterhydrocarbonoclasticus. Journal of Natural Products, 2004, 67, 1897-1899.	3.0	66

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55	Metallosurfactants of bioinorganic interest: Coordination-induced self assembly. Coordination Chemistry Reviews, 2011, 255, 678-687.	18.8	66
56	Identification and structural characterization of serobactins, a suite of lipopeptide siderophores produced by the grass endophyte <i><scp>H</scp>erbaspirillum seropedicae</i>. Environmental Microbiology, 2013, 15, 916-927.	3.8	66
57	Evidence for organic substrate binding to vanadium bromoperoxidase. Journal of the American Chemical Society, 1994, 116, 411-412.	13.7	65
58	Bromide-assisted hydrogen peroxide disproportionation catalyzed by vanadium bromoperoxidase: absence of direct catalase activity and implications for the catalytic mechanism. Inorganic Chemistry, 1989, 28, 393-395.	4.0	64
59	Chlorination catalyzed by vanadium bromoperoxidase. Inorganic Chemistry, 1990, 29, 5015-5017.	4.0	63
60	Vanadium bromoperoxidase and functional mimics. Structure and Bonding, 1997, , 109-132.	1.0	55
61	Turnerbactin, a Novel Triscatecholate Siderophore from the Shipworm Endosymbiont Teredinibacter turnerae T7901. PLoS ONE, 2013, 8, e76151.	2.5	55
62	A Chlorine Isotope Effect for Enzyme-Catalyzed Chlorination. Journal of the American Chemical Society, 2002, 124, 14526-14527.	13.7	54
63	Marine amphiphilic siderophores: Marinobactin structure, uptake, and microbial partitioning. Journal of Inorganic Biochemistry, 2007, 101, 1692-1698.	3.5	54
64	Reactivity of recombinant and mutant vanadium bromoperoxidase from the red alga Corallina officinalis. Journal of Inorganic Biochemistry, 2002, 91, 59-69.	3.5	53
65	Vanadium-51 NMR as a probe of metal-ion binding in metalloproteins. Journal of the American Chemical Society, 1987, 109, 1864-1865.	13.7	51
66	Vanadium bromoperoxidase from Delisea pulchra: enzyme-catalyzed formation of bromofuranone and attendant disruption of quorum sensing. Chemical Communications, 2011, 47, 12086.	4.1	51
67	A new eicosapentaenoic acid formed from arachidonic acid in the coralline red algaeBossiella orbigniana. Lipids, 1991, 26, 162-165.	1.7	48
68	Imaging Escherichia coli using functionalized core/shell CdSe/CdS quantum dots. Journal of Biological Inorganic Chemistry, 2006, 11, 663-669.	2.6	46
69	Vanchrobactin and Anguibactin Siderophores Produced by <i>Vibrio</i> sp. DS40M4. Journal of Natural Products, 2010, 73, 1038-1043.	3.0	45
70	Biosynthesis of Amphi-enterobactin Siderophores by Vibrio harveyi BAA-1116: Identification of a Bifunctional Nonribosomal Peptide Synthetase Condensation Domain. Journal of the American Chemical Society, 2014, 136, 5615-5618.	13.7	45
71	Mechanism of dioxygen formation catalyzed by vanadium bromoperoxidase from Macrocystis pyrifera and Fucus distichus: steady state kinetic analysis and comparison to the mechanism of V-BrPO from Ascophyllum nodosum. BBA - Proteins and Proteomics, 1991, 1079, 1-7.	2.1	43
72	Micelle-to-Vesicle Transition of an Iron-Chelating Microbial Surfactant, Marinobactin E. Langmuir, 2005, 21, 12109-12114.	3.5	42

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73	Siderophores of Marinobacter aquaeolei: petrobactin and its sulfonated derivatives. BioMetals, 2009, 22, 565-571.	4.1	42
74	Impact of Molecular Architecture and Adsorption Density on Adhesion of Mussel-Inspired Surface Primers with Catechol-Cation Synergy. Journal of the American Chemical Society, 2019, 141, 18673-18681.	13.7	40
75	Ferric Stability Constants of Representative Marine Siderophores: Marinobactins, Aquachelins, and Petrobactin. Inorganic Chemistry, 2009, 48, 11466-11473.	4.0	38
76	Chrysobactin Siderophores Produced by <i>Dickeya chrysanthemi</i> EC16. Journal of Natural Products, 2011, 74, 1207-1212.	3.0	36
77	Amphiphilic siderophore production by oil-associating microbes. Metallomics, 2014, 6, 1150-1155.	2.4	35
78	Siderophores and mussel foot proteins: the role of catechol, cations, and metal coordination in surface adhesion. Journal of Biological Inorganic Chemistry, 2017, 22, 739-749.	2.6	35
79	Inactivation of Vanadium Bromoperoxidase:Â Formation of 2-Oxohistidineâ€. Biochemistry, 1996, 35, 11805-11811.	2.5	34
80	Identification of new members within suites of amphiphilic marine siderophores. BioMetals, 2011, 24, 85-92.	4.1	34
81	Biosynthetic considerations of triscatechol siderophores framed on serine and threonine macrolactone scaffolds. Metallomics, 2017, 9, 824-839.	2.4	33
82	Vanadium bromoperoxidase-catalyzed oxidation of thiocyanate by hydrogen peroxide. Inorganica Chimica Acta, 1996, 243, 201-206.	2.4	31
83	Microbial ligand coordination: Consideration of biological significance. Coordination Chemistry Reviews, 2016, 306, 628-635.	18.8	31
84	Genomic analysis of siderophore Î²-hydroxylases reveals divergent stereocontrol and expands the condensation domain family. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19805-19814.	7.1	31
85	A suite of citrate-derived siderophores from a marine Vibrio species isolated following the Deepwater Horizon oil spill. Journal of Inorganic Biochemistry, 2012, 107, 90-95.	3.5	28
86	Iron(III) Coordination Chemistry of Alterobactin A:Â A Siderophore from the Marine BacteriumAlteromonas luteoviolacea. Inorganic Chemistry, 2005, 44, 7671-7677.	4.0	25
87	Metal-Dependent Self-Assembly of a Microbial Surfactant. Langmuir, 2007, 23, 9393-9400.	3.5	23
88	Acyl peptidic siderophores: structures, biosyntheses and post-assembly modifications. BioMetals, 2015, 28, 445-459.	4.1	22
89	Amino acid variability in the peptide composition of a suite of amphiphilic peptide siderophores from an open ocean Vibrio species. Journal of Biological Inorganic Chemistry, 2013, 18, 489-497.	2.6	21
90	Peroxidative Oxidation of Lignin and a Lignin Model Compound by a Manganese SALEN Derivative. ACS Sustainable Chemistry and Engineering, 2016, 4, 3212-3219.	6.7	20

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91	Î2-Hydroxyaspartic acid in siderophores: biosynthesis and reactivity. Journal of Biological Inorganic Chemistry, 2018, 23, 957-967.	2.6	19
92	Reactivation of vanadate-inhibited enzymes with desferrioxamine B, a vanadium(V) chelator. Inorganica Chimica Acta, 1989, 163, 1-3.	2.4	17
93	4. Siderophores and the Dissolution of Iron-Bearing Minerals in Marine Systems. , 2005, , 53-84.		17
94	Isolation, Structure Elucidation, and Iron-Binding Properties of Lystabactins, Siderophores Isolated from a Marine <i>Pseudoalteromonas </i>sp<i>.</i>. Journal of Natural Products, 2013, 76, 648-654.	3.0	17
95	STUDIES OF VANDADIUM-BROMOPEROXIDASE USING SURFACE AND CORTICAL PROTOPLASTS OF MACROCYSTIS PYRIEFERA (PHAEOPHYTA)1. Journal of Phycology, 1990, 26, 589-592.	2.3	16
96	Vanadium(V) complexes of 1,5,10-tris(2,3-dihydroxybenzoyl)-1,5,10-triazadecane and its analogs. Inorganic Chemistry, 1992, 31, 5072-5077.	4.0	15
97	Ambiguity of NRPS Structure Predictions: Four Bidentate Chelating Groups in the Siderophore Pacifibactin. Journal of Natural Products, 2019, 82, 990-997.	3.0	15
98	Iron acquisition: straight up and on the rocks?. Nature Structural and Molecular Biology, 2003, 10, 240-241.	8.2	14
99	Microbial Tailoring of Acyl Peptidic Siderophores. Biochemistry, 2014, 53, 2624-2631.	2.5	14
100	Fatty Acid Hydrolysis of Acyl Marinobactin Siderophores by <i>Marinobacter</i> Acylases. Biochemistry, 2015, 54, 744-752.	2.5	14
101	XAS Study of a Metal-Induced Phase Transition by a Microbial Surfactant. Langmuir, 2008, 24, 4999-5002.	3.5	13
102	Equilibrium and kinetic studies of substitution reactions of Fe(TIM)XY2+ in aqueous solution. Inorganic Chemistry, 1984, 23, 2227-2231.	4.0	12
103	The Coordination and Redox Chemistry of Vanadium in Aqueous Solution. , 1990, , 25-49.		12
104	Substrate-based differential expression analysis reveals control of biomass degrading enzymes in Pycnoporus cinnabarinus. Biochemical Engineering Journal, 2018, 130, 83-89.	3.6	12
105	Photoactive siderophores: Structure, function and biology. Journal of Inorganic Biochemistry, 2021, 221, 111457.	3.5	12
106	The novel non-heme vanadium bromoperoxidase from marine algae: Phosphate inactivation. Journal of Industrial Microbiology, 1991, 8, 37-43.	0.9	11
107	Magnetic susceptibility of Mn(III) complexes of hydroxamate siderophores. Journal of Inorganic Biochemistry, 2015, 148, 22-26.	3.5	11
108	Precursor-directed biosynthesis of catechol compounds in <i>Acinetobacter bouvetii</i> DSM 14964. Chemical Communications, 2020, 56, 12222-12225.	4.1	11

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109	A suite of asymmetric citrate siderophores isolated from a marine Shewanella species. Journal of Inorganic Biochemistry, 2019, 198, 110736.	3.5	8
110	Flash photolysis of Fe(TIM)CO(X)2+ complexes. Inorganic Chemistry, 1984, 23, 4545-4549.	4.0	7
111	Amphi-enterobactin commonly produced among Vibrio campbellii and Vibrio harveyi strains can be taken up by a novel outer membrane protein FapA that also can transport canonical Fe(III)-enterobactin. Journal of Biological Inorganic Chemistry, 2018, 23, 1009-1022.	2.6	7
112	Genomics-driven discovery of chiral triscatechol siderophores with enantiomeric Fe(<scp>iii</scp>) coordination. Chemical Science, 2021, 12, 12485-12493.	7.4	7
113	Modeling Vanadium Bromoperoxidase. Advances in Chemistry Series, 1996, , 329-349.	0.6	4
114	Reactivity of Vanadium Bromoperoxidase. ACS Symposium Series, 1998, , 202-215.	0.5	3
115	Vanadium Haloperoxidases. , 1999, , 55-79.		3
116	The marine biogeochemistry of iron. Metal Ions in Biological Systems, 2005, 44, 21-46.	0.4	3
117	The Role of Vanadium Bromoperoxidase in the Biosynthesis of Halogenated Marine Natural Products. ChemInform, 2004, 35, no.	0.0	2
118	Ruckerbactin Produced by <i>Yersinia ruckeri</i> YRB Is a Diastereomer of the Siderophore Trivanchrobactin Produced by <i>Vibrio campbellii</i> DS40M4. Journal of Natural Products, 2022, 85, 264-269.	3.0	2
119	On the origin of amphi-enterobactin fragments produced by Vibrio campbellii species. Journal of Biological Inorganic Chemistry, 2022, 27, 565-572.	2.6	2
120	Inorganic Young Investigators: Celebrating the Rising Generation of Chemists. Inorganic Chemistry, 2020, 59, 11852-11854.	4.0	0
121	Metals, Acquisition by Marine Bacteria. Encyclopedia of Earth Sciences Series, 2011, , 565-568.	0.1	0