Carl J Carrano

List of Publications by Year
in descending order

68 papers	3,328 citations	201674 27 h-index	149698 56 g-index
69 all docs	69 docs citations	69 times ranked	3829 citing authors

#	Article	IF	Citations
1	The Ectocarpus genome and the independent evolution of multicellularity in brown algae. Nature, 2010, 465, 617-621.	27.8	774
2	Photolysis of ironâ€"siderophore chelates promotes bacterialâ€"algal mutualism. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 17071-17076.	7.1	446
3	Coordination chemistry of microbial iron transport compounds. 16. Isolation, characterization, and formation constants of ferric aerobactin. Journal of the American Chemical Society, 1979, 101, 2722-2727.	13.7	156
4	Control of Thiolate Nucleophilicity and Specificity in Zinc Metalloproteins by Hydrogen Bonding:Â Lessons from Model Compound Studies. Journal of the American Chemical Society, 2003, 125, 868-869.	13.7	92
5	Photoreactivity of Iron(III)âˆ'Aerobactin:Â Photoproduct Structure and Iron(III) Coordination. Inorganic Chemistry, 2006, 45, 6028-6033.	4.0	91
6	Synthesis and Characterization of Pseudotetrahedral N2O and N2S Zinc(II) Complexes of Two Heteroscorpionate Ligands:â€‰ Models for the Binding Sites of Several Zinc Metalloproteins. Inorganic Chemistry, 1999, 38, 4593-4600.	4.0	88
7	A New Class of Biomimetically Relevant â€œScorpionateâ€•Ligands. 1. The (2-Hydroxyphenyl)bis(pyrazolyl)methanes:Â Synthesis and Structural Characterization of Some Cobalt(II) Complexes. Inorganic Chemistry, 1997, 36, 291-297.	4.0	86
8	Coordination Chemistry of the Carboxylate Type Siderophore Rhizoferrin:Â The Iron(III) Complex and Its Metal Analogs. Inorganic Chemistry, 1996, 35, 6429-6436.	4.0	81
9	A New Class of Biomimetically Relevant â€œScorpionateâ€•Ligands. 2. The (2-Hydroxyphenyl)bis(pyrazolyl)methanes:Â Structural Characterization of a Series of Mono-, Di-, and Trinuclear Nickel(II) Complexes. Inorganic Chemistry, 1997, 36, 298-306.	4.0	80
10	Heterobactins: A new class of siderophores from Rhodococcus erythropolis IGTS8 containing both hydroxamate and catecholate donor groups. BioMetals, 2001, 14, 119-125.	4.1	77
11	Vibrioferrin, an Unusual Marine Siderophore: Iron Binding, Photochemistry, and Biological Implications. Inorganic Chemistry, 2009, 48, 11451-11458.	4.0	77
12	Methylation of (2-Methylethanethiol-bis-3,5-dimethylpyrazolyl)methane Zinc Complexes and Coordination of the Resulting Thioether:Â Relevance to Zinc-Containing Alkyl Transfer Enzymes. Inorganic Chemistry, 2001, 40, 919-927.	4.0	74
13	Boron Binding by a Siderophore Isolated from Marine Bacteria Associated with the Toxic DinoflagellateGymnodiniumcatenatum. Journal of the American Chemical Society, 2007, 129, 478-479.	13.7	70
14	H-Bonding Interactions and Control of Thiolate Nucleophilicity and Specificity in Model Complexes of Zinc Metalloproteins. Inorganic Chemistry, 2005, 44, 2012-2017.	4.0	65
15	A Family of Dioxoâˆ'Molybdenum(VI) Complexes of N2X Heteroscorpionate Ligands of Relevance to Molybdoenzymes. Inorganic Chemistry, 2004, 43, 7800-7806.	4.0	54
16	Methylation of neutral pseudotetrahedral zinc thiolate complexes: model reactions for alkyl group transfer to sulfur by zinc-containing enzymes. Journal of Biological Inorganic Chemistry, 2001, 6, 82-90.	2.6	51
17	Synthesis and characterization of several zinc(II) complexes containing the bulky heteroscorpionate ligand bis(5-tert-butyl-3-methylpyrazol-2-yl)acetate: relevance to the resting states of the zinc(II) enzymes thermolysin and carboxypeptidase A. Inorganica Chimica Acta, 2003, 346, 227-238.	2.4	50
18	Methylation of (2-methylethanethiol-bis-3,5-dimethylpyrazolyl)methane zinc complexes and coordination of the resulting thioether: relevance to zinc-containing alkyl transfer enzymes. Chemical Communications, 2000, , 1635-1636.	4.1	49

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19	Boron and Marine Life: A New Look at an Enigmatic Bioelement. Marine Biotechnology, 2009, 11, 431-440.	2.4	48
20	Structure and physical properties of several pseudotetrahedral zinc complexes containing a new alkyl thiolate heteroscorpionate ligand. Dalton Transactions RSC, 2000, , 3304-3309.	2.3	43
21	Isomerization and Oxygen Atom Transfer Reactivity in Oxoâ˘'Mo Complexes of Relevance to Molybdoenzymes. Inorganic Chemistry, 2004, 43, 7573-7575.	4.0	39
22	Ferric Stability Constants of Representative Marine Siderophores: Marinobactins, Aquachelins, and Petrobactin. Inorganic Chemistry, 2009, 48, 11466-11473.	4.0	38
23	Synthesis, Characterization, Electrochemistry, Electronic Structure, and Isomerization of Mononuclear Oxoâ˘'Molybdenum(V) Complexes: The Serine Gate Hypothesis in the Function of DMSO Reductases. Inorganic Chemistry, 2002, 41, 1281-1291.	4.0	34
24	Iron transport in the genus Marinobacter. BioMetals, 2012, 25, 135-147.	4.1	32
25	Fungal ferritins: The ferritin from mycelia ofAbsidia spinosais a bacterioferritin. FEBS Letters, 1996, 390, 261-264.	2.8	29
26	Key aspects of the iodine metabolism in brown algae: a brief critical review. Metallomics, 2019, 11, 756-764.	2.4	29
27	Geometric Control of Reduction Potential in Oxomolybdenum Centers:Â Implications to the Serine Coordination in DMSO Reductase. Inorganic Chemistry, 2001, 40, 2632-2633.	4.0	28
28	Donor Atom Dependent Geometric Isomers in Mononuclear Oxoâ˘'Molybdenum(V) Complexes:Â Implications for Coordinated Endogenous Ligation in Molybdoenzymes. Inorganic Chemistry, 2003, 42, 5999-6007.	4.0	28
29	Siderophore-mediated iron uptake in two clades of Marinobacter spp. associated with phytoplankton: the role of light. BioMetals, 2012, 25, 181-192.	4.1	27
30	Zinc complexes of hydrogen bond accepting ester substituted trispyrazolylborates. Inorganica Chimica Acta, 2002, 341, 33-38.	2.4	25
31	New H-bond accepting tris(pyrazolyl)borates: stabilization of metal aquo species as models for the vicinal oxygen chelate enzyme superfamily. Dalton Transactions RSC, 2001, , 1448-1451.	2.3	24
32	Atypical iron storage in marine brown algae: a multidisciplinary study of iron transport and storage in Ectocarpus siliculosus. Journal of Experimental Botany, 2012, 63, 5763-5772.	4.8	24
33	Emission of volatile halogenated compounds, speciation and localization of bromine and iodine in the brown algal genome model Ectocarpus siliculosus. Journal of Biological Inorganic Chemistry, 2018, 23, 1119-1128.	2.6	24
34	Homo- and Heterometallic Mono-, Di-, and Trinuclear Co2+, Ni2+, Cu2+, and Zn2+Complexes of the â€œHeteroscorpionateâ€•Ligand (2-Hydroxyphenyl)bis(pyrazolyl)methane and Its Derivatives. Inorganic Chemistry, 1998, 37, 1473-1482.	4.0	23
35	A new class of biomimetically relevant â€˜Scorpionateâ€™ ligands III. The bis(pyrazolyl)methane(phen-2â€²-ol)s: Synthesis and structural characterization of mono and dinuclear copper(II) complexes. Inorganica Chimica Acta, 1998, 273, 14-23.	2.4	22
36	A Family of Homoâ€•and Heteroscorpionate Ligands: Applications to Bioinorganic Chemistry. European Journal of Inorganic Chemistry, 2016, 2016, 2377-2390.	2.0	21

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37	Oxidation-state and metal-ion dependent stereoisomerization in oxo molybdenum and tungsten complexes of a bulky alkoxy heteroscorpionate ligand. Dalton Transactions, 2006, , 3822.	3.3	20
38	Base-Free Monomeric Organogallium Hydrides. Angewandte Chemie International Edition in English, 1994, 33, 1253-1255.	4.4	18
39	Iron and Harmful Algae Blooms: Potential Algal-Bacterial Mutualism Between Lingulodinium polyedrum and Marinobacter algicola. Frontiers in Marine Science, 2018, 5, .	2.5	18
40	Detection of photoactive siderophore biosynthetic genes in the marine environment. BioMetals, 2013, 26, 507-516.	4.1	17
41	Metal complexes of 3-carboxyethyl substituted trispyrazolylborates: interactions with the ester carbonyl oxygens. Dalton Transactions RSC, 2002, , 3374-3380.	2.3	16
42	Surface-bound iron: a metal ion buffer in the marine brown alga<i>Ectocarpus siliculosus</i>?. Journal of Experimental Botany, 2014, 65, 585-594.	4.8	16
43	The potential role of kelp forests on iodine speciation in coastal seawater. PLoS ONE, 2017, 12, e0180755.	2.5	15
44	Boron uptake, localization, and speciation in marine brown algae. Metallomics, 2016, 8, 161-169.	2.4	14
45	Some aspects of the iodine metabolism of the giant kelp Macrocystis pyrifera (phaeophyceae). Journal of Inorganic Biochemistry, 2017, 177, 82-88.	3.5	14
46	The structure and characterization of zinc heteroscorpionate complexes containing pentafluorothiophenol. Inorganica Chimica Acta, 2000, 300-302, 427-433.	2.4	13
47	A multidisciplinary study of iron transport and storage in the marine green alga Tetraselmis suecica. Journal of Inorganic Biochemistry, 2012, 116, 188-194.	3.5	13
48	Evaluation of photo-reactive siderophore producing bacteria before, during and after a bloom of the dinoflagellate Lingulodinium polyedrum. Metallomics, 2014, 6, 1156-1163.	2.4	13
49	MÃ¶ssbauer Spectroscopic Characterization of Iron(III)â€“Polysaccharide Coordination Complexes: Photochemistry, Biological, and Photoresponsive Materials Implications. Inorganic Chemistry, 2017, 56, 11524-11531.	4.0	12
50	Photoactive siderophores: Structure, function and biology. Journal of Inorganic Biochemistry, 2021, 221, 111457.	3.5	12
51	Halogens in Seaweeds: Biological and Environmental Significance. Phycology, 2022, 2, 132-171.	3.6	12
52	Directed Synthesis of the Triangular Mixed-Metal Cluster H₂RhRe₂Cp*(CO)₉: Ligand Fluxionality and Facile Cluster Fragmentation in the Presence of CO, Halogenated Solvents, and Thiols. Organometallics, 2010, 29, 61-75.	2.3	11
53	Iron transport and storage in the coccolithophore: Emiliania huxleyi. Metallomics, 2012, 4, 1160.	2.4	11
54	Specificity and mechanism of rhizoferrin-mediated metal ion uptake. BioMetals, 1996, 9, 185.	4.1	10

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55	Synthesis, Characterization, and Dynamic Behaviour of Triosmium Clusters Containing the Tridentate Ligand {Ph2PCH2CH2}2S (PSP). European Journal of Inorganic Chemistry, 2013, 2013, 2447-2459.	2.0	10
56	The influence of marine algae on iodine speciation in the coastal ocean. Algae, 2020, 35, 167-176.	2.3	10
57	Synthesis and characterization of heteroscorpionate dioxo-tungsten(VI) complexes. Inorganica Chimica Acta, 2007, 360, 1961-1969.	2.4	9
58	Surface binding, localization and storage of iron in the giant kelp Macrocystis pyrifera. Metallomics, 2016, 8, 403-411.	2.4	9
59	Distribution of dissolved iron and bacteria producing the photoactive siderophore, vibrioferrin, in waters off Southern California and Northern Baja. BioMetals, 2019, 32, 139-154.	4.1	6
60	Laminaria kelps impact iodine speciation chemistry in coastal seawater. Estuarine, Coastal and Shelf Science, 2021, 262, 107531.	2.1	6
61	Basenfreie monomere Organogalliumhydride. Angewandte Chemie, 1994, 106, 1354-1356.	2.0	5
62	Title is missing!. Journal of Chemical Crystallography, 2003, 33, 431-436.	1.1	5
63	Iron uptake and storage in the HAB dinoflagellate Lingulodinium polyedrum. BioMetals, 2017, 30, 945-953.	4.1	4
64	New insights on <i>Laminaria digitata</i> ultrastructure through combined conventional chemical fixation and cryofixation. Botanica Marina, 2021, 64, 177-187.	1.2	3
65	Î±-Diimine Ligand Coordination and Câ€"H Bond Activation in the Reaction of Os3(CO)10(MeCN)2 with 6-R-2,2â€²-Bipyridine (where RÂ=ÂEt, Ph): X-ray Diffraction Structures of the Ortho-Metalated Hydride Clusters HOs3(CO)9(N2C10H6-6-R). Journal of Chemical Crystallography, 2009, 39, 820-826.	1.1	2
66	Correction: Surface binding, localization and storage of iron in the giant kelp Macrocystis pyrifera. Metallomics, 2016, 8, 551-551.	2.4	2
67	Loss of Motility as a Non-Lethal Mechanism for Intercolony Inhibition (â€œSibling Rivalryâ€) in Marinobacter. Microorganisms, 2021, 9, 103.	3.6	0
68	The effect of iron on Chilean Alexandrium catenella growth and paralytic shellfish toxin production as related to algal blooms. BioMetals, 2022, 35, 39-51.	4.1	0