Katherine J Franz

List of Publications by Year
in descending order

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Version: 2024-02-01

93 papers	5,992 citations	76326 40 h-index	76900 74 g-index
107 all docs	107 docs citations	107 times ranked	7177 citing authors

#	Article	IF	Citations
1	Application of Metal Coordination Chemistry To Explore and Manipulate Cell Biology. Chemical Reviews, 2009, 109, 4921-4960.	47.7	768
2	Connecting copper and cancer: from transition metal signalling to metalloplasia. Nature Reviews Cancer, 2022, 22, 102-113.	28.4	519
3	Probing oxidative stress: Small molecule fluorescent sensors of metal ions, reactive oxygen species, and thiols. Coordination Chemistry Reviews, 2012, 256, 2333-2356.	18.8	283
4	Coordination chemistry of copper proteins: How nature handles a toxic cargo for essential function. Journal of Inorganic Biochemistry, 2012, 107, 129-143.	3.5	281
5	Protein Alignment by a Coexpressed Lanthanide-Binding Tag for the Measurement of Residual Dipolar Couplings. Journal of the American Chemical Society, 2003, 125, 13338-13339.	13.7	193
6	Lanthanide-Binding Tags as Versatile Protein Coexpression Probes. ChemBioChem, 2003, 4, 265-271.	2.6	158
7	Structural Origin of the High Affinity of a Chemically Evolved Lanthanide-Binding Peptide. Angewandte Chemie - International Edition, 2004, 43, 3682-3685.	13.8	158
8	A Powerful Combinatorial Screen to Identify High-Affinity Terbium(III)-Binding Peptides. ChemBioChem, 2003, 4, 272-276.	2.6	144
9	Copper Signaling Axis as a Target for Prostate Cancer Therapeutics. Cancer Research, 2014, 74, 5819-5831.	0.9	143
10	Minding metals: Tailoring multifunctional chelating agents for neurodegenerative disease. Dalton Transactions, 2010, 39, 2177-2187.	3.3	139
11	A Pro-Chelator Triggered by Hydrogen Peroxide Inhibits Iron-Promoted Hydroxyl Radical Formation. Journal of the American Chemical Society, 2006, 128, 12424-12425.	13.7	133
12	Model Peptides Provide New Insights into the Role of Histidine Residues as Potential Ligands in Human Cellular Copper Acquisition via Ctr1. Journal of the American Chemical Society, 2011, 133, 4427-4437.	13.7	128
13	Fe(III)-Coordination Properties of Neuromelanin Components:Â 5,6-Dihydroxyindole and 5,6-Dihydroxyindole-2-carboxylic Acid. Inorganic Chemistry, 2006, 45, 3657-3664.	4.0	127
14	A Mets Motif Peptide Found in Copper Transport Proteins Selectively Binds Cu(I) with Methionine-Only Coordination. Inorganic Chemistry, 2005, 44, 9787-9794.	4.0	126
15	NO Disproportionation Reactivity of Fe Tropocoronand Complexes. Journal of the American Chemical Society, 1999, 121, 10504-10512.	13.7	110
16	Metal-Based NO Sensing by Selective Ligand Dissociation. Angewandte Chemie - International Edition, 2000, 39, 2120-2122.	13.8	100
17	Introduction: Metals in Medicine. Chemical Reviews, 2019, 119, 727-729.	47.7	100
18	Disproportionation of Nitric Oxide Promoted by a Mn Tropocoronand. Journal of the American Chemical Society, 1998, 120, 9034-9040.	13.7	97

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19	A comparison of methionine, histidine and cysteine in copper(i)-binding peptides reveals differences relevant to copper uptake by organisms in diverse environments. Metallomics, 2011, 3, 61-73.	2.4	89
20	Aminotroponiminates as Ligands for Potential Metal-Based Nitric Oxide Sensors. Inorganic Chemistry, 2000, 39, 4081-4092.	4.0	86
21	Methionine motifs of copper transport proteins provide general and flexible thioether-only binding sites for Cu(I) and Ag(I). Journal of Biological Inorganic Chemistry, 2010, 15, 1033-1049.	2.6	81
22	A Prochelator Activated by Hydrogen Peroxide Prevents Metalâ€Induced Amyloid Î² Aggregation. ChemBioChem, 2010, 11, 59-62.	2.6	77
23	A Prochelator Activated by Î²-Secretase Inhibits AÎ² Aggregation and Suppresses Copper-Induced Reactive Oxygen Species Formation. Journal of the American Chemical Society, 2010, 132, 4994-4995.	13.7	76
24	Exploiting Innate Immune Cell Activation of a Copper-Dependent Antimicrobial Agent during Infection. Chemistry and Biology, 2014, 21, 977-987.	6.0	76
25	Pharmacological activity of metal binding agents that alter copper bioavailability. Dalton Transactions, 2015, 44, 8760-8770.	3.3	76
26	Emerging Opportunities To Manipulate Metal Trafficking for Therapeutic Benefit. Inorganic Chemistry, 2019, 58, 13528-13545.	4.0	68
27	Coordination of platinum therapeutic agents to met-rich motifs of human copper transport protein1. Metallomics, 2010, 2, 74-83.	2.4	64
28	A lytic polysaccharide monooxygenase-like protein functions in fungal copper import and meningitis. Nature Chemical Biology, 2020, 16, 337-344.	8.0	61
29	Phosphorylation of an Î±-Synuclein Peptide Fragment Enhances Metal Binding. Journal of the American Chemical Society, 2005, 127, 9662-9663.	13.7	60
30	A Photolabile Ligand for Light-Activated Release of Caged Copper. Journal of the American Chemical Society, 2008, 130, 12246-12247.	13.7	56
31	Keys for Unlocking Photolabile Metalâ€Containing Cages. Angewandte Chemie - International Edition, 2011, 50, 814-824.	13.8	56
32	Leveraging Î³â€Glutamyl Transferase To Direct Cytotoxicity of Copper Dithiocarbamates against Prostate Cancer Cells. Angewandte Chemie - International Edition, 2018, 57, 12780-12784.	13.8	53
33	A Photo-Caged Platinum(II) Complex That Increases Cytotoxicity upon Light Activation. European Journal of Inorganic Chemistry, 2010, 2010, 2224-2228.	2.0	51
34	Modifications of boronic ester pro-chelators triggered by hydrogen peroxide tune reactivity to inhibit metal-promoted oxidative stress. Dalton Transactions, 2007, , 5031.	3.3	50
35	Phosphorylation-dependent metal binding by Î±-synuclein peptide fragments. Journal of Biological Inorganic Chemistry, 2007, 12, 234-247.	2.6	50
36	Toward the Detection of Cellular Copper(II) by a Light-Activated Fluorescence Increase. Inorganic Chemistry, 2010, 49, 6808-6810.	4.0	48

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37	Specific Histidine Residues Confer Histatin Peptides with Copper-Dependent Activity against Candida albicans. Biochemistry, 2017, 56, 4244-4255.	2.5	48
38	Pentacoordinate Cobalt(III) Thiolate and Nitrosyl Tropocoronand Compounds. Inorganic Chemistry, 2001, 40, 3774-3780.	4.0	46
39	Clawing back: broadening the notion of metal chelators in medicine. Current Opinion in Chemical Biology, 2013, 17, 143-149.	6.1	45
40	Iron prochelator BSIH protects retinal pigment epithelial cells against cell death induced by hydrogen peroxide. Journal of Inorganic Biochemistry, 2008, 102, 2130-2135.	3.5	43
41	Model Peptide Studies Reveal a Mixed Histidine-Methionine Cu(I) Binding Site at the N-Terminus of Human Copper Transporter 1. Inorganic Chemistry, 2015, 54, 8544-8551.	4.0	42
42	Prochelator BHAPI protects cells against paraquat-induced damage by ROS-triggered iron chelation. Metallomics, 2012, 4, 899.	2.4	39
43	Copper Influences the Antibacterial Outcomes of a Î²-Lactamase-Activated Prochelator against Drug-Resistant Bacteria. ACS Infectious Diseases, 2018, 4, 1019-1029.	3.8	39
44	Stimulus-Responsive Prochelators for Manipulating Cellular Metals. Accounts of Chemical Research, 2016, 49, 2468-2477.	15.6	35
45	Polymer pendant ligand chemistry-5. The selective and competitive removal of Ag+, Hg2+, Cu2+, Pb2+ and Cd2+ ions from aqueous solution utilizing a n-sulfonylethylenebis(dithiocarbamate) ligand anchored on macroporous polystyrene-divinylbenzene beads. Polyhedron, 1996, 15, 4241-4254.	2.2	33
46	Toward the development of prochelators as fluorescent probes of copper-mediated oxidative stress. Dalton Transactions, 2010, 39, 568-576.	3.3	31
47	Monitoring Î²â€Secretase Activity in Living Cells with a Membraneâ€Anchored FRET Probe. Angewandte Chemie - International Edition, 2012, 51, 10795-10799.	13.8	30
48	Comparison of various iron chelators and prochelators as protective agents against cardiomyocyte oxidative injury. Free Radical Biology and Medicine, 2014, 74, 210-221.	2.9	28
49	Nitrosyl Transfer from Manganese to Iron in Tropocoronand Complexes. Inorganic Chemistry, 2000, 39, 3722-3723.	4.0	27
50	Prochelators triggered by hydrogen peroxide provide hexadentate iron coordination to impede oxidative stress. Journal of Inorganic Biochemistry, 2011, 105, 1161-1172.	3.5	27
51	Single-Molecule Activation and Quantification of Mechanically Triggered Palladiumâ€“Carbene Bond Dissociation. Journal of the American Chemical Society, 2021, 143, 1784-1789.	13.7	27
52	Protein Folding Stability Changes Across the Proteome Reveal Targets of Cu Toxicity in E. coli. ACS Chemical Biology, 2021, 16, 214-224.	3.4	26
53	Synthetic and Structural Studies of a Linear Bis-Catechol Amide, N,N'-Bis(2,3-dihydroxybenzoyl)-1,7-diazaheptane (5-LICAM), and Its Complexes with Ni2+ and Co2+: Utilization of a Polymer-Supported, Sulfonated Analog, 5-LICAMS, as a Biomimetic Ligand for Divalent Metal Ion Removal from Aqueous Solution. Inorganic Chemistry, 1995, 34, 2820-2825.	4.0	25
54	Chemical and functional properties of metal chelators that mobilize copper to elicit fungal killing of Cryptococcus neoformans. Metallomics, 2017, 9, 69-81.	2.4	25

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55	Characterization of a Photoswitching Chelator with Light-Modulated Geometric, Electronic, and Metal-Binding Properties. Inorganic Chemistry, 2014, 53, 1397-1405.	4.0	23
56	Polymer Pendant Ligand Chemistry. 3. A Biomimetic Approach to Selective Metal Ion Removal and Recovery from Aqueous Solution with Polymer-Supported Sulfonated Catechol and Linear Catechol Amide Ligands. Inorganic Chemistry, 1995, 34, 2813-2819.	4.0	22
57	A prochelator with a modular masking group featuring hydrogen peroxide activation with concurrent fluorescent reporting. Chemical Communications, 2014, 50, 11317-11320.	4.1	22
58	Light uncages a copper complex to induce nonapoptotic cell death. Chemical Communications, 2013, 49, 2460.	4.1	21
59	Copper shares a piece of the Ï€. Nature Chemical Biology, 2008, 4, 85-86.	8.0	20
60	Development of next-generation photolabile copper cages with improved copper binding properties. Dalton Transactions, 2010, 39, 9538.	3.3	20
61	Novel aminoalkyl tris-cyclometalated iridium complexes as cellular stains. Dalton Transactions, 2016, 45, 17420-17430.	3.3	20
62	A Cephalosporin Prochelator Inhibits New Delhi Metallo-Î²-lactamase 1 without Removing Zinc. ACS Infectious Diseases, 2020, 6, 1264-1272.	3.8	20
63	Introduction to â€œCellular Metal Homeostasis and Traffickingâ€. Chemical Reviews, 2009, 109, 4533-4535.	47.7	18
64	A boronate prochelator built on a triazole framework for peroxide-triggered tridentate metal binding. Inorganica Chimica Acta, 2012, 393, 294-303.	2.4	18
65	Candida albicansreprioritizes metal handling during fluconazole stress. Metallomics, 2019, 11, 2020-2032.	2.4	17
66	Supramolecular Alcoholâ€“Amine Crystals and Their Hydrogen-Bond Patterns. Acta Crystallographica Section B: Structural Science, 1998, 54, 695-704.	1.8	16
67	Copper potentiates azole antifungal activity in a way that does not involve complex formation. Dalton Transactions, 2019, 48, 9654-9662.	3.3	16
68	Application of inorganic chemistry for non-cancer therapeutics. Dalton Transactions, 2012, 41, 6333.	3.3	15
69	Counterions Influence Reactivity of Metal Ions with Cysteinyldopa Model Compounds. Inorganic Chemistry, 2008, 47, 1087-1095.	4.0	14
70	Cardioprotective effects of iron chelator HAPI and ROS-activated boronate prochelator BHAPI against catecholamine-induced oxidative cellular injury. Toxicology, 2016, 371, 17-28.	4.2	14
71	Synthesis and Characterization of Copper(II) Complexes of Cysteinyldopa and Benzothiazine Model Ligands Related to Pheomelanin. Inorganic Chemistry, 2006, 45, 6102-6104.	4.0	13
72	LCâ€“UV/MS methods for the analysis of prochelatorâ€”Boronyl salicylaldehyde isonicotinoyl hydrazone (BSIH) and its active chelator salicylaldehyde isonicotinoyl hydrazone (SIH). Journal of Pharmaceutical and Biomedical Analysis, 2015, 105, 55-63.	2.8	13

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73	Dithiocarbamate prodrugs activated by prostate specific antigen to target prostate cancer. Bioorganic and Medicinal Chemistry Letters, 2020, 30, 127148.	2.2	12
74	Characterization of cytoprotective and toxic properties of iron chelator SIH, prochelator BSIH and their degradation products. Toxicology, 2016, 350-352, 15-24.	4.2	10
75	Metal-binding hydrazone photoswitches for visible light reactivity and variable relaxation kinetics. Photochemical and Photobiological Sciences, 2017, 16, 1604-1612.	2.9	10
76	Prospective clinical trial of disulfiram plus copper in men with metastatic castrationâ€resistant prostate cancer. Prostate, 2022, 82, 858-866.	2.3	10
77	Benzimidazole and Benzoxazole Zinc Chelators as Inhibitors of Metalloâ€Î²â€Lactamase NDMâ€1. ChemMedChem, 2021, 16, 654-661.	3.2	9
78	Electronic Structure of a Paramagnetic {MNO}6 Complex: MnNO 5,5-Tropocoronand. Inorganic Chemistry, 2010, 49, 2701-2705.	4.0	8
79	A cell-permeable fluorescent prochelator responds to hydrogen peroxide and metal ions by decreasing fluorescence. Inorganica Chimica Acta, 2012, 380, 125-134.	2.4	8
80	A multifunctional, light-activated prochelator inhibits UVA-induced oxidative stress. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 4843-4847.	2.2	8
81	Leveraging Î³â€Glutamyl Transferase To Direct Cytotoxicity of Copper Dithiocarbamates against Prostate Cancer Cells. Angewandte Chemie, 2018, 130, 12962-12966.	2.0	8
82	Fluconazole analogues with metal-binding motifs impact metal-dependent processes and demonstrate antifungal activity in Candida albicans. Journal of Biological Inorganic Chemistry, 2020, 25, 729-745.	2.6	8
83	Membrane Transporters Involved in the Antimicrobial Activities of Pyrithione in Escherichia coli. Molecules, 2021, 26, 5826.	3.8	6
84	Copper Availability Influences the Transcriptomic Response of Candida albicans to Fluconazole Stress. G3: Genes, Genomes, Genetics, 2021, 11, .	1.8	5
85	A prochelator peptide designed to use heterometallic cooperativity to enhance metal ion affinity. Chemical Science, 2015, 6, 3606-3610.	7.4	4
86	The hydrolytic susceptibility of prochelator BSIH in aqueous solutions. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 4165-4170.	2.2	4
87	Development of lanthanide-binding peptides as natively expressed protein probes. Journal of Inorganic Biochemistry, 2003, 96, 131.	3.5	3
88	Modifying aroylhydrazone prochelators for hydrolytic stability and improved cytoprotection against oxidative stress. Bioorganic and Medicinal Chemistry, 2018, 26, 5962-5972.	3.0	2
89	Examination of diverse iron-chelating agents for the protection of differentiated PC12 cells against oxidative injury induced by 6-hydroxydopamine and dopamine. Scientific Reports, 2022, 12, .	3.3	2
90	The highways and byways of bioinorganic chemistry. Current Opinion in Chemical Biology, 2010, 14, 208-210.	6.1	1

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91	Grab â€˜n Go: Siderophore-Binding Proteins Provide Pathogens a Quick Fix to Satisfy Their Hunger for Iron. ACS Central Science, 2020, 6, 456-458.	11.3	1
92	Preface. BioMetals, 2015, 28, 431-431.	4.1	0
93	Metallomics: Emerging Investigators 2019. Metallomics, 2019, 11, 9-14.	2.4	0