

Katherine J Franz

List of Publications by Year in descending order

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93
papers

5,992
citations

76196

40
h-index

76769

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. <i>Chemical Reviews</i> , 2009, 109, 4921-4960.	23.0	768
2	Connecting copper and cancer: from transition metal signalling to metalloplasia. <i>Nature Reviews Cancer</i> , 2022, 22, 102-113.	12.8	519
3	Probing oxidative stress: Small molecule fluorescent sensors of metal ions, reactive oxygen species, and thiols. <i>Coordination Chemistry Reviews</i> , 2012, 256, 2333-2356.	9.5	283
4	Coordination chemistry of copper proteins: How nature handles a toxic cargo for essential function. <i>Journal of Inorganic Biochemistry</i> , 2012, 107, 129-143.	1.5	281
5	Protein Alignment by a Coexpressed Lanthanide-Binding Tag for the Measurement of Residual Dipolar Couplings. <i>Journal of the American Chemical Society</i> , 2003, 125, 13338-13339.	6.6	193
6	Lanthanide-Binding Tags as Versatile Protein Coexpression Probes. <i>ChemBioChem</i> , 2003, 4, 265-271.	1.3	158
7	Structural Origin of the High Affinity of a Chemically Evolved Lanthanide-Binding Peptide. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 3682-3685.	7.2	158
8	A Powerful Combinatorial Screen to Identify High-Affinity Terbium(III)-Binding Peptides. <i>ChemBioChem</i> , 2003, 4, 272-276.	1.3	144
9	Copper Signaling Axis as a Target for Prostate Cancer Therapeutics. <i>Cancer Research</i> , 2014, 74, 5819-5831.	0.4	143
10	Minding metals: Tailoring multifunctional chelating agents for neurodegenerative disease. <i>Dalton Transactions</i> , 2010, 39, 2177-2187.	1.6	139
11	A Pro-Chelator Triggered by Hydrogen Peroxide Inhibits Iron-Promoted Hydroxyl Radical Formation. <i>Journal of the American Chemical Society</i> , 2006, 128, 12424-12425.	6.6	133
12	Model Peptides Provide New Insights into the Role of Histidine Residues as Potential Ligands in Human Cellular Copper Acquisition via Ctr1. <i>Journal of the American Chemical Society</i> , 2011, 133, 4427-4437.	6.6	128
13	Fe(III)-Coordination Properties of Neuromelanin Components: 5,6-Dihydroxyindole and 5,6-Dihydroxyindole-2-carboxylic Acid. <i>Inorganic Chemistry</i> , 2006, 45, 3657-3664.	1.9	127
14	A Mets Motif Peptide Found in Copper Transport Proteins Selectively Binds Cu(I) with Methionine-Only Coordination. <i>Inorganic Chemistry</i> , 2005, 44, 9787-9794.	1.9	126
15	NO Disproportionation Reactivity of Fe Tropocoronand Complexes. <i>Journal of the American Chemical Society</i> , 1999, 121, 10504-10512.	6.6	110
16	Metal-Based NO Sensing by Selective Ligand Dissociation. <i>Angewandte Chemie - International Edition</i> , 2000, 39, 2120-2122.	7.2	100
17	Introduction: Metals in Medicine. <i>Chemical Reviews</i> , 2019, 119, 727-729.	23.0	100
18	Disproportionation of Nitric Oxide Promoted by a Mn Tropocoronand. <i>Journal of the American Chemical Society</i> , 1998, 120, 9034-9040.	6.6	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. <i>Metallomics</i> , 2011, 3, 61-73.	1.0	89
20	Aminotroponimines as Ligands for Potential Metal-Based Nitric Oxide Sensors. <i>Inorganic Chemistry</i> , 2000, 39, 4081-4092.	1.9	86
21	Methionine motifs of copper transport proteins provide general and flexible thioether-only binding sites for Cu(I) and Ag(I). <i>Journal of Biological Inorganic Chemistry</i> , 2010, 15, 1033-1049.	1.1	81
22	A Prochelator Activated by Hydrogen Peroxide Prevents Metal-Induced Amyloid β Aggregation. <i>ChemBioChem</i> , 2010, 11, 59-62.	1.3	77
23	A Prochelator Activated by β -Secretase Inhibits $A\beta$ Aggregation and Suppresses Copper-Induced Reactive Oxygen Species Formation. <i>Journal of the American Chemical Society</i> , 2010, 132, 4994-4995.	6.6	76
24	Exploiting Innate Immune Cell Activation of a Copper-Dependent Antimicrobial Agent during Infection. <i>Chemistry and Biology</i> , 2014, 21, 977-987.	6.2	76
25	Pharmacological activity of metal binding agents that alter copper bioavailability. <i>Dalton Transactions</i> , 2015, 44, 8760-8770.	1.6	76
26	Emerging Opportunities To Manipulate Metal Trafficking for Therapeutic Benefit. <i>Inorganic Chemistry</i> , 2019, 58, 13528-13545.	1.9	68
27	Coordination of platinum therapeutic agents to met-rich motifs of human copper transport protein1. <i>Metallomics</i> , 2010, 2, 74-83.	1.0	64
28	A lytic polysaccharide monooxygenase-like protein functions in fungal copper import and meningitis. <i>Nature Chemical Biology</i> , 2020, 16, 337-344.	3.9	61
29	Phosphorylation of an α -Synuclein Peptide Fragment Enhances Metal Binding. <i>Journal of the American Chemical Society</i> , 2005, 127, 9662-9663.	6.6	60
30	A Photolabile Ligand for Light-Activated Release of Caged Copper. <i>Journal of the American Chemical Society</i> , 2008, 130, 12246-12247.	6.6	56
31	Keys for Unlocking Photolabile Metal-Containing Cages. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 814-824.	7.2	56
32	Leveraging α -Glutamyl Transferase To Direct Cytotoxicity of Copper Dithiocarbamates against Prostate Cancer Cells. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 12780-12784.	7.2	53
33	A Photo-Caged Platinum(II) Complex That Increases Cytotoxicity upon Light Activation. <i>European Journal of Inorganic Chemistry</i> , 2010, 2010, 2224-2228.	1.0	51
34	Modifications of boronic ester pro-chelators triggered by hydrogen peroxide tune reactivity to inhibit metal-promoted oxidative stress. <i>Dalton Transactions</i> , 2007, , 5031.	1.6	50
35	Phosphorylation-dependent metal binding by α -synuclein peptide fragments. <i>Journal of Biological Inorganic Chemistry</i> , 2007, 12, 234-247.	1.1	50
36	Toward the Detection of Cellular Copper(II) by a Light-Activated Fluorescence Increase. <i>Inorganic Chemistry</i> , 2010, 49, 6808-6810.	1.9	48

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37	Specific Histidine Residues Confer Histatin Peptides with Copper-Dependent Activity against <i>Candida albicans</i> . <i>Biochemistry</i> , 2017, 56, 4244-4255.	1.2	48
38	Pentacoordinate Cobalt(III) Thiolate and Nitrosyl Tropocoronand Compounds. <i>Inorganic Chemistry</i> , 2001, 40, 3774-3780.	1.9	46
39	Clawing back: broadening the notion of metal chelators in medicine. <i>Current Opinion in Chemical Biology</i> , 2013, 17, 143-149.	2.8	45
40	Iron prochelator BSIH protects retinal pigment epithelial cells against cell death induced by hydrogen peroxide. <i>Journal of Inorganic Biochemistry</i> , 2008, 102, 2130-2135.	1.5	43
41	Model Peptide Studies Reveal a Mixed Histidine-Methionine Cu(I) Binding Site at the N-Terminus of Human Copper Transporter 1. <i>Inorganic Chemistry</i> , 2015, 54, 8544-8551.	1.9	42
42	Prochelator BHAPI protects cells against paraquat-induced damage by ROS-triggered iron chelation. <i>Metallomics</i> , 2012, 4, 899.	1.0	39
43	Copper Influences the Antibacterial Outcomes of a β -Lactamase-Activated Prochelator against Drug-Resistant Bacteria. <i>ACS Infectious Diseases</i> , 2018, 4, 1019-1029.	1.8	39
44	Stimulus-Responsive Prochelators for Manipulating Cellular Metals. <i>Accounts of Chemical Research</i> , 2016, 49, 2468-2477.	7.6	35
45	Polymer pendant ligand chemistry-5. The selective and competitive removal of Ag ⁺ , Hg ²⁺ , Cu ²⁺ , Pb ²⁺ and Cd ²⁺ ions from aqueous solution utilizing a n-sulfonylethylenebis(dithiocarbamate) ligand anchored on macroporous polystyrene-divinylbenzene beads. <i>Polyhedron</i> , 1996, 15, 4241-4254.	1.0	33
46	Toward the development of prochelators as fluorescent probes of copper-mediated oxidative stress. <i>Dalton Transactions</i> , 2010, 39, 568-576.	1.6	31
47	Monitoring β -Secretase Activity in Living Cells with a Membrane-Anchored FRET Probe. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 10795-10799.	7.2	30
48	Comparison of various iron chelators and prochelators as protective agents against cardiomyocyte oxidative injury. <i>Free Radical Biology and Medicine</i> , 2014, 74, 210-221.	1.3	28
49	Nitrosyl Transfer from Manganese to Iron in Tropocoronand Complexes. <i>Inorganic Chemistry</i> , 2000, 39, 3722-3723.	1.9	27
50	Prochelators triggered by hydrogen peroxide provide hexadentate iron coordination to impede oxidative stress. <i>Journal of Inorganic Biochemistry</i> , 2011, 105, 1161-1172.	1.5	27
51	Single-Molecule Activation and Quantification of Mechanically Triggered Palladium-Carbene Bond Dissociation. <i>Journal of the American Chemical Society</i> , 2021, 143, 1784-1789.	6.6	27
52	Protein Folding Stability Changes Across the Proteome Reveal Targets of Cu Toxicity in <i>E. coli</i> . <i>ACS Chemical Biology</i> , 2021, 16, 214-224.	1.6	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 Ni ²⁺ and Co ²⁺ : Utilization of a Polymer-Supported, Sulfonated Analog, 5-LICAMS, as a Biomimetic Ligand for Divalent Metal Ion Removal from Aqueous Solution. <i>Inorganic Chemistry</i> , 1995, 34, 2820-2825.	1.9	25
54	Chemical and functional properties of metal chelators that mobilize copper to elicit fungal killing of <i>Cryptococcus neoformans</i> . <i>Metallomics</i> , 2017, 9, 69-81.	1.0	25

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55	Characterization of a Photoswitching Chelator with Light-Modulated Geometric, Electronic, and Metal-Binding Properties. <i>Inorganic Chemistry</i> , 2014, 53, 1397-1405.	1.9	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. <i>Inorganic Chemistry</i> , 1995, 34, 2813-2819.	1.9	22
57	A prochelator with a modular masking group featuring hydrogen peroxide activation with concurrent fluorescent reporting. <i>Chemical Communications</i> , 2014, 50, 11317-11320.	2.2	22
58	Light uncages a copper complex to induce nonapoptotic cell death. <i>Chemical Communications</i> , 2013, 49, 2460.	2.2	21
59	Copper shares a piece of the pie. <i>Nature Chemical Biology</i> , 2008, 4, 85-86.	3.9	20
60	Development of next-generation photolabile copper cages with improved copper binding properties. <i>Dalton Transactions</i> , 2010, 39, 9538.	1.6	20
61	Novel aminoalkyl tris-cyclometalated iridium complexes as cellular stains. <i>Dalton Transactions</i> , 2016, 45, 17420-17430.	1.6	20
62	A Cephalosporin Prochelator Inhibits New Delhi Metallo- β -lactamase 1 without Removing Zinc. <i>ACS Infectious Diseases</i> , 2020, 6, 1264-1272.	1.8	20
63	Introduction to "Cellular Metal Homeostasis and Trafficking". <i>Chemical Reviews</i> , 2009, 109, 4533-4535.	23.0	18
64	A boronate prochelator built on a triazole framework for peroxide-triggered tridentate metal binding. <i>Inorganica Chimica Acta</i> , 2012, 393, 294-303.	1.2	18
65	<i>Candida albicans</i> reprioritizes metal handling during fluconazole stress. <i>Metallomics</i> , 2019, 11, 2020-2032.	1.0	17
66	Supramolecular Alcohol-Amine Crystals and Their Hydrogen-Bond Patterns. <i>Acta Crystallographica Section B: Structural Science</i> , 1998, 54, 695-704.	1.8	16
67	Copper potentiates azole antifungal activity in a way that does not involve complex formation. <i>Dalton Transactions</i> , 2019, 48, 9654-9662.	1.6	16
68	Application of inorganic chemistry for non-cancer therapeutics. <i>Dalton Transactions</i> , 2012, 41, 6333.	1.6	15
69	Counterions Influence Reactivity of Metal Ions with Cysteinyldopa Model Compounds. <i>Inorganic Chemistry</i> , 2008, 47, 1087-1095.	1.9	14
70	Cardioprotective effects of iron chelator HAPI and ROS-activated boronate prochelator BHAPI against catecholamine-induced oxidative cellular injury. <i>Toxicology</i> , 2016, 371, 17-28.	2.0	14
71	Synthesis and Characterization of Copper(II) Complexes of Cysteinyldopa and Benzothiazine Model Ligands Related to Pheomelanin. <i>Inorganic Chemistry</i> , 2006, 45, 6102-6104.	1.9	13
72	LC-UV/MS methods for the analysis of prochelator-Boronyl salicylaldehyde isonicotinoyl hydrazone (BSIH) and its active chelator salicylaldehyde isonicotinoyl hydrazone (SIH). <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2015, 105, 55-63.	1.4	13

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73	Dithiocarbamate prodrugs activated by prostate specific antigen to target prostate cancer. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2020, 30, 127148.	1.0	12
74	Characterization of cytoprotective and toxic properties of iron chelator SIH, prochelator BSIH and their degradation products. <i>Toxicology</i> , 2016, 350-352, 15-24.	2.0	10
75	Metal-binding hydrazone photoswitches for visible light reactivity and variable relaxation kinetics. <i>Photochemical and Photobiological Sciences</i> , 2017, 16, 1604-1612.	1.6	10
76	Prospective clinical trial of disulfiram plus copper in men with metastatic castration-resistant prostate cancer. <i>Prostate</i> , 2022, 82, 858-866.	1.2	10
77	Benzimidazole and Benzoxazole Zinc Chelators as Inhibitors of Metallo-β-Lactamase NDM-1. <i>ChemMedChem</i> , 2021, 16, 654-661.	1.6	9
78	Electronic Structure of a Paramagnetic {MNO}6 Complex: MnNO 5,5-Tropocoronand. <i>Inorganic Chemistry</i> , 2010, 49, 2701-2705.	1.9	8
79	A cell-permeable fluorescent prochelator responds to hydrogen peroxide and metal ions by decreasing fluorescence. <i>Inorganica Chimica Acta</i> , 2012, 380, 125-134.	1.2	8
80	A multifunctional, light-activated prochelator inhibits UVA-induced oxidative stress. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 4843-4847.	1.0	8
81	Leveraging ³ α-Glutamyl Transferase To Direct Cytotoxicity of Copper Dithiocarbamates against Prostate Cancer Cells. <i>Angewandte Chemie</i> , 2018, 130, 12962-12966.	1.6	8
82	Fluconazole analogues with metal-binding motifs impact metal-dependent processes and demonstrate antifungal activity in <i>Candida albicans</i> . <i>Journal of Biological Inorganic Chemistry</i> , 2020, 25, 729-745.	1.1	8
83	Membrane Transporters Involved in the Antimicrobial Activities of Pyrithione in <i>Escherichia coli</i> . <i>Molecules</i> , 2021, 26, 5826.	1.7	6
84	Copper Availability Influences the Transcriptomic Response of <i>Candida albicans</i> to Fluconazole Stress. <i>G3: Genes, Genomes, Genetics</i> , 2021, 11, .	0.8	5
85	A prochelator peptide designed to use heterometallic cooperativity to enhance metal ion affinity. <i>Chemical Science</i> , 2015, 6, 3606-3610.	3.7	4
86	The hydrolytic susceptibility of prochelator BSIH in aqueous solutions. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2017, 27, 4165-4170.	1.0	4
87	Development of lanthanide-binding peptides as natively expressed protein probes. <i>Journal of Inorganic Biochemistry</i> , 2003, 96, 131.	1.5	3
88	Modifying aroylhydrazone prochelators for hydrolytic stability and improved cytoprotection against oxidative stress. <i>Bioorganic and Medicinal Chemistry</i> , 2018, 26, 5962-5972.	1.4	2
89	Examination of diverse iron-chelating agents for the protection of differentiated PC12 cells against oxidative injury induced by 6-hydroxydopamine and dopamine. <i>Scientific Reports</i> , 2022, 12, .	1.6	2
90	The highways and byways of bioinorganic chemistry. <i>Current Opinion in Chemical Biology</i> , 2010, 14, 208-210.	2.8	1

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91	Grab & Go: Siderophore-Binding Proteins Provide Pathogens a Quick Fix to Satisfy Their Hunger for Iron. ACS Central Science, 2020, 6, 456-458.	5.3	1
92	Preface. BioMetals, 2015, 28, 431-431.	1.8	0
93	Metallomics: Emerging Investigators 2019. Metallomics, 2019, 11, 9-14.	1.0	0