

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 | Connecting copper and cancer: from transition metal signalling to metalloplasia. <i>Nature Reviews Cancer</i> , 2022, 22, 102-113. | 28.4 | 519 |
| 2 | Prospective clinical trial of disulfiram plus copper in men with metastatic castration-resistant prostate cancer. <i>Prostate</i> , 2022, 82, 858-866. | 2.3 | 10 |
| 3 | 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, . | 3.3 | 2 |
| 4 | Benzimidazole and Benzoxazole Zinc Chelators as Inhibitors of Metallo- β -Lactamase NDM-1. <i>ChemMedChem</i> , 2021, 16, 654-661. | 3.2 | 9 |
| 5 | 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. | 3.4 | 26 |
| 6 | Single-Molecule Activation and Quantification of Mechanically Triggered Palladium-Carbene Bond Dissociation. <i>Journal of the American Chemical Society</i> , 2021, 143, 1784-1789. | 13.7 | 27 |
| 7 | Copper Availability Influences the Transcriptomic Response of <i>Candida albicans</i> to Fluconazole Stress. <i>C3: Genes, Genomes, Genetics</i> , 2021, 11, . | 1.8 | 5 |
| 8 | Membrane Transporters Involved in the Antimicrobial Activities of Pyrithione in <i>Escherichia coli</i> . <i>Molecules</i> , 2021, 26, 5826. | 3.8 | 6 |
| 9 | Grab a Go: Siderophore-Binding Proteins Provide Pathogens a Quick Fix to Satisfy Their Hunger for Iron. <i>ACS Central Science</i> , 2020, 6, 456-458. | 11.3 | 1 |
| 10 | 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. | 2.6 | 8 |
| 11 | A lytic polysaccharide monooxygenase-like protein functions in fungal copper import and meningitis. <i>Nature Chemical Biology</i> , 2020, 16, 337-344. | 8.0 | 61 |
| 12 | Dithiocarbamate prodrugs activated by prostate specific antigen to target prostate cancer. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2020, 30, 127148. | 2.2 | 12 |
| 13 | A Cephalosporin Prochelator Inhibits New Delhi Metallo- β -lactamase 1 without Removing Zinc. <i>ACS Infectious Diseases</i> , 2020, 6, 1264-1272. | 3.8 | 20 |
| 14 | Metallomics: Emerging Investigators 2019. <i>Metallomics</i> , 2019, 11, 9-14. | 2.4 | 0 |
| 15 | Introduction: Metals in Medicine. <i>Chemical Reviews</i> , 2019, 119, 727-729. | 47.7 | 100 |
| 16 | Emerging Opportunities To Manipulate Metal Trafficking for Therapeutic Benefit. <i>Inorganic Chemistry</i> , 2019, 58, 13528-13545. | 4.0 | 68 |
| 17 | Copper potentiates azole antifungal activity in a way that does not involve complex formation. <i>Dalton Transactions</i> , 2019, 48, 9654-9662. | 3.3 | 16 |
| 18 | <i>Candida albicans</i> reprioritizes metal handling during fluconazole stress. <i>Metallomics</i> , 2019, 11, 2020-2032. | 2.4 | 17 |

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|----|---|------|-----------|
| 19 | Copper Influences the Antibacterial Outcomes of a β -Lactamase-Activated Prochelator against Drug-Resistant Bacteria. <i>ACS Infectious Diseases</i> , 2018, 4, 1019-1029. | 3.8 | 39 |
| 20 | Modifying aroylhydrazone prochelators for hydrolytic stability and improved cytoprotection against oxidative stress. <i>Bioorganic and Medicinal Chemistry</i> , 2018, 26, 5962-5972. | 3.0 | 2 |
| 21 | Leveraging β -Glutamyl Transferase To Direct Cytotoxicity of Copper Dithiocarbamates against Prostate Cancer Cells. <i>Angewandte Chemie</i> , 2018, 130, 12962-12966. | 2.0 | 8 |
| 22 | Leveraging β -Glutamyl Transferase To Direct Cytotoxicity of Copper Dithiocarbamates against Prostate Cancer Cells. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 12780-12784. | 13.8 | 53 |
| 23 | Metal-binding hydrazone photoswitches for visible light reactivity and variable relaxation kinetics. <i>Photochemical and Photobiological Sciences</i> , 2017, 16, 1604-1612. | 2.9 | 10 |
| 24 | Specific Histidine Residues Confer Histatin Peptides with Copper-Dependent Activity against <i>Candida albicans</i> . <i>Biochemistry</i> , 2017, 56, 4244-4255. | 2.5 | 48 |
| 25 | The hydrolytic susceptibility of prochelator BSIH in aqueous solutions. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2017, 27, 4165-4170. | 2.2 | 4 |
| 26 | 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. | 2.4 | 25 |
| 27 | Characterization of cytoprotective and toxic properties of iron chelator SIH, prochelator BSIH and their degradation products. <i>Toxicology</i> , 2016, 350-352, 15-24. | 4.2 | 10 |
| 28 | Novel aminoalkyl tris-cyclometalated iridium complexes as cellular stains. <i>Dalton Transactions</i> , 2016, 45, 17420-17430. | 3.3 | 20 |
| 29 | Stimulus-Responsive Prochelators for Manipulating Cellular Metals. <i>Accounts of Chemical Research</i> , 2016, 49, 2468-2477. | 15.6 | 35 |
| 30 | 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. | 4.2 | 14 |
| 31 | Preface. <i>BioMetals</i> , 2015, 28, 431-431. | 4.1 | 0 |
| 32 | A multifunctional, light-activated prochelator inhibits UVA-induced oxidative stress. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 4843-4847. | 2.2 | 8 |
| 33 | A prochelator peptide designed to use heterometallic cooperativity to enhance metal ion affinity. <i>Chemical Science</i> , 2015, 6, 3606-3610. | 7.4 | 4 |
| 34 | Pharmacological activity of metal binding agents that alter copper bioavailability. <i>Dalton Transactions</i> , 2015, 44, 8760-8770. | 3.3 | 76 |
| 35 | 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. | 4.0 | 42 |
| 36 | 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. | 2.8 | 13 |

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|----|---|------|-----------|
| 37 | Characterization of a Photoswitching Chelator with Light-Modulated Geometric, Electronic, and Metal-Binding Properties. <i>Inorganic Chemistry</i> , 2014, 53, 1397-1405. | 4.0 | 23 |
| 38 | A prochelator with a modular masking group featuring hydrogen peroxide activation with concurrent fluorescent reporting. <i>Chemical Communications</i> , 2014, 50, 11317-11320. | 4.1 | 22 |
| 39 | Copper Signaling Axis as a Target for Prostate Cancer Therapeutics. <i>Cancer Research</i> , 2014, 74, 5819-5831. | 0.9 | 143 |
| 40 | Exploiting Innate Immune Cell Activation of a Copper-Dependent Antimicrobial Agent during Infection. <i>Chemistry and Biology</i> , 2014, 21, 977-987. | 6.0 | 76 |
| 41 | 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. | 2.9 | 28 |
| 42 | Light uncages a copper complex to induce nonapoptotic cell death. <i>Chemical Communications</i> , 2013, 49, 2460. | 4.1 | 21 |
| 43 | Clawing back: broadening the notion of metal chelators in medicine. <i>Current Opinion in Chemical Biology</i> , 2013, 17, 143-149. | 6.1 | 45 |
| 44 | Monitoring Î²â€œSecretase Activity in Living Cells with a Membraneâ€œAnchored FRET Probe. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 10795-10799. | 13.8 | 30 |
| 45 | Probing oxidative stress: Small molecule fluorescent sensors of metal ions, reactive oxygen species, and thiols. <i>Coordination Chemistry Reviews</i> , 2012, 256, 2333-2356. | 18.8 | 283 |
| 46 | Prochelator BHAPI protects cells against paraquat-induced damage by ROS-triggered iron chelation. <i>Metallomics</i> , 2012, 4, 899. | 2.4 | 39 |
| 47 | A boronate prochelator built on a triazole framework for peroxide-triggered tridentate metal binding. <i>Inorganica Chimica Acta</i> , 2012, 393, 294-303. | 2.4 | 18 |
| 48 | Application of inorganic chemistry for non-cancer therapeutics. <i>Dalton Transactions</i> , 2012, 41, 6333. | 3.3 | 15 |
| 49 | A cell-permeable fluorescent prochelator responds to hydrogen peroxide and metal ions by decreasing fluorescence. <i>Inorganica Chimica Acta</i> , 2012, 380, 125-134. | 2.4 | 8 |
| 50 | Coordination chemistry of copper proteins: How nature handles a toxic cargo for essential function. <i>Journal of Inorganic Biochemistry</i> , 2012, 107, 129-143. | 3.5 | 281 |
| 51 | 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. | 13.7 | 128 |
| 52 | 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. | 2.4 | 89 |
| 53 | Keys for Unlocking Photolabile Metalâ€œContaining Cages. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 814-824. | 13.8 | 56 |
| 54 | Prochelators triggered by hydrogen peroxide provide hexadentate iron coordination to impede oxidative stress. <i>Journal of Inorganic Biochemistry</i> , 2011, 105, 1161-1172. | 3.5 | 27 |

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|----|--|------|-----------|
| 55 | A Prochelator Activated by Hydrogen Peroxide Prevents Metal-Induced Amyloid β^2 Aggregation. <i>ChemBioChem</i> , 2010, 11, 59-62. | 2.6 | 77 |
| 56 | 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. | 2.6 | 81 |
| 57 | A Photo-Caged Platinum(II) Complex That Increases Cytotoxicity upon Light Activation. <i>European Journal of Inorganic Chemistry</i> , 2010, 2010, 2224-2228. | 2.0 | 51 |
| 58 | The highways and byways of bioinorganic chemistry. <i>Current Opinion in Chemical Biology</i> , 2010, 14, 208-210. | 6.1 | 1 |
| 59 | Minding metals: Tailoring multifunctional chelating agents for neurodegenerative disease. <i>Dalton Transactions</i> , 2010, 39, 2177-2187. | 3.3 | 139 |
| 60 | Electronic Structure of a Paramagnetic {MNO}6 Complex: MnNO 5,5-Tropocoronand. <i>Inorganic Chemistry</i> , 2010, 49, 2701-2705. | 4.0 | 8 |
| 61 | Toward the Detection of Cellular Copper(II) by a Light-Activated Fluorescence Increase. <i>Inorganic Chemistry</i> , 2010, 49, 6808-6810. | 4.0 | 48 |
| 62 | A Prochelator Activated by β^2 -Secretase Inhibits $A\beta^2$ Aggregation and Suppresses Copper-Induced Reactive Oxygen Species Formation. <i>Journal of the American Chemical Society</i> , 2010, 132, 4994-4995. | 13.7 | 76 |
| 63 | Toward the development of prochelators as fluorescent probes of copper-mediated oxidative stress. <i>Dalton Transactions</i> , 2010, 39, 568-576. | 3.3 | 31 |
| 64 | Development of next-generation photolabile copper cages with improved copper binding properties. <i>Dalton Transactions</i> , 2010, 39, 9538. | 3.3 | 20 |
| 65 | Coordination of platinum therapeutic agents to met-rich motifs of human copper transport protein1. <i>Metallomics</i> , 2010, 2, 74-83. | 2.4 | 64 |
| 66 | Introduction to "Cellular Metal Homeostasis and Trafficking". <i>Chemical Reviews</i> , 2009, 109, 4533-4535. | 47.7 | 18 |
| 67 | Application of Metal Coordination Chemistry To Explore and Manipulate Cell Biology. <i>Chemical Reviews</i> , 2009, 109, 4921-4960. | 47.7 | 768 |
| 68 | 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. | 3.5 | 43 |
| 69 | Copper shares a piece of the pie. <i>Nature Chemical Biology</i> , 2008, 4, 85-86. | 8.0 | 20 |
| 70 | A Photolabile Ligand for Light-Activated Release of Caged Copper. <i>Journal of the American Chemical Society</i> , 2008, 130, 12246-12247. | 13.7 | 56 |
| 71 | Counterions Influence Reactivity of Metal Ions with Cysteinyldopa Model Compounds. <i>Inorganic Chemistry</i> , 2008, 47, 1087-1095. | 4.0 | 14 |
| 72 | Modifications of boronic ester pro-chelators triggered by hydrogen peroxide tune reactivity to inhibit metal-promoted oxidative stress. <i>Dalton Transactions</i> , 2007, , 5031. | 3.3 | 50 |

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|----|--|------|-----------|
| 73 | Phosphorylation-dependent metal binding by α -synuclein peptide fragments. <i>Journal of Biological Inorganic Chemistry</i> , 2007, 12, 234-247. | 2.6 | 50 |
| 74 | 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. | 13.7 | 133 |
| 75 | Fe(III)-Coordination Properties of Neuromelanin Components: α -5,6-Dihydroxyindole and 5,6-Dihydroxyindole-2-carboxylic Acid. <i>Inorganic Chemistry</i> , 2006, 45, 3657-3664. | 4.0 | 127 |
| 76 | Synthesis and Characterization of Copper(II) Complexes of Cysteinyldopa and Benzothiazine Model Ligands Related to Pheomelanin. <i>Inorganic Chemistry</i> , 2006, 45, 6102-6104. | 4.0 | 13 |
| 77 | 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. | 4.0 | 126 |
| 78 | Phosphorylation of an α -Synuclein Peptide Fragment Enhances Metal Binding. <i>Journal of the American Chemical Society</i> , 2005, 127, 9662-9663. | 13.7 | 60 |
| 79 | Structural Origin of the High Affinity of a Chemically Evolved Lanthanide-Binding Peptide. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 3682-3685. | 13.8 | 158 |
| 80 | Lanthanide-Binding Tags as Versatile Protein Coexpression Probes. <i>ChemBioChem</i> , 2003, 4, 265-271. | 2.6 | 158 |
| 81 | A Powerful Combinatorial Screen to Identify High-Affinity Terbium(III)-Binding Peptides. <i>ChemBioChem</i> , 2003, 4, 272-276. | 2.6 | 144 |
| 82 | Development of lanthanide-binding peptides as natively expressed protein probes. <i>Journal of Inorganic Biochemistry</i> , 2003, 96, 131. | 3.5 | 3 |
| 83 | 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. | 13.7 | 193 |
| 84 | Pentacoordinate Cobalt(III) Thiolate and Nitrosyl Tropocoronand Compounds. <i>Inorganic Chemistry</i> , 2001, 40, 3774-3780. | 4.0 | 46 |
| 85 | Metal-Based NO Sensing by Selective Ligand Dissociation. <i>Angewandte Chemie - International Edition</i> , 2000, 39, 2120-2122. | 13.8 | 100 |
| 86 | Nitrosyl Transfer from Manganese to Iron in Tropocoronand Complexes. <i>Inorganic Chemistry</i> , 2000, 39, 3722-3723. | 4.0 | 27 |
| 87 | Aminotroponimines as Ligands for Potential Metal-Based Nitric Oxide Sensors. <i>Inorganic Chemistry</i> , 2000, 39, 4081-4092. | 4.0 | 86 |
| 88 | NO Disproportionation Reactivity of Fe Tropocoronand Complexes. <i>Journal of the American Chemical Society</i> , 1999, 121, 10504-10512. | 13.7 | 110 |
| 89 | Supramolecular Alcohol-amine Crystals and Their Hydrogen-Bond Patterns. <i>Acta Crystallographica Section B: Structural Science</i> , 1998, 54, 695-704. | 1.8 | 16 |
| 90 | Disproportionation of Nitric Oxide Promoted by a Mn Tropocoronand. <i>Journal of the American Chemical Society</i> , 1998, 120, 9034-9040. | 13.7 | 97 |

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|----|--|-----|-----------|
| 91 | 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. | 2.2 | 33 |
| 92 | 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. | 4.0 | 22 |
| 93 | 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. | 4.0 | 25 |