

# Craig A Grapperhaus

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9521832/publications.pdf>

Version: 2024-02-01

84  
papers

2,649  
citations

236925

25  
h-index

197818

49  
g-index

88  
all docs

88  
docs citations

88  
times ranked

2061  
citing authors

#	ARTICLE	IF	CITATIONS
1	Oxygen Capture by Sulfur in Nickel Thiolates. <i>Accounts of Chemical Research</i> , 1998, 31, 451-459.	15.6	321
2	Mononuclear (Nitrido)iron(V) and (Oxo)iron(IV) Complexes via Photolysis of [(cyclam-acetato)Fe(III)(N3)] <sup>+</sup> and Ozonolysis of [(cyclam-acetato)Fe(III)(O3SCF3)] <sup>+</sup> in Water/Acetone Mixtures. <i>Inorganic Chemistry</i> , 2000, 39, 5306-5317.	4.0	301
3	Structural, Spectroscopic, and Computational Study of an Octahedral, Non-Heme {Fe <sup>II</sup> (NO)} <sub>6-8</sub> Series: [Fe(NO)(cyclam-ac)] <sub>2</sub> <sup>+/0</sup> . <i>Journal of the American Chemical Society</i> , 2004, 126, 5138-5153.	13.7	195
4	Metal-Assisted Ligand-Centered Electrocatalytic Hydrogen Evolution upon Reduction of a Bis(thiosemicarbazonato)Cu(II) Complex. <i>Inorganic Chemistry</i> , 2017, 56, 11254-11265.	4.0	102
5	Beyond Metal-Hydrides: Non-Transition-Metal and Metal-Free Ligand-Centered Electrocatalytic Hydrogen Evolution and Hydrogen Oxidation. <i>Journal of the American Chemical Society</i> , 2016, 138, 7844-7847.	13.7	97
6	Methylation of Tethered Thiolates in [(bme-daco)Zn] <sub>2</sub> and [(bme-daco)Cd] <sub>2</sub> as a Model of Zinc Sulfur-Methylation Proteins. <i>Inorganic Chemistry</i> , 1998, 37, 4052-4058.	4.0	88
7	Synthesis and Oxygenation of a Nickel(II) and Zinc(II) Dithiolate: An Experimental and Theoretical Comparison. <i>Inorganic Chemistry</i> , 2004, 43, 2859-2866.	4.0	70
8	Proposed Ligand-Centered Electrocatalytic Hydrogen Evolution and Hydrogen Oxidation at a Noninnocent Mononuclear Metal <sup>II</sup> Thiolate. <i>Journal of the American Chemical Society</i> , 2015, 137, 9238-9241.	13.7	67
9	Unique Reactivity of a Tetradentate N <sub>2</sub> S <sub>2</sub> Complex of Nickel: Intermediates in the Production of Sulfur Oxygenates. <i>Inorganic Chemistry</i> , 2002, 41, 1837-1844.	4.0	61
10	Ligand-Assisted Metal-Centered Electrocatalytic Hydrogen Evolution upon Reduction of a Bis(thiosemicarbazonato)Ni(II) Complex. <i>Inorganic Chemistry</i> , 2018, 57, 13486-13493.	4.0	58
11	Template Effect for O <sub>2</sub> Addition across cis-Sulfur Sites in Nickel Dithiolates. <i>Journal of the American Chemical Society</i> , 1996, 118, 1791-1792.	13.7	57
12	Singlet Oxygen and the Production of Sulfur Oxygenates of Nickel(II) and Palladium(II) Thiolates. <i>Inorganic Chemistry</i> , 1997, 36, 1860-1866.	4.0	56
13	Subtle Bite-Angle Influences on N <sub>2</sub> S <sub>2</sub> Ni Complexes. <i>Inorganic Chemistry</i> , 2001, 40, 3601-3605.	4.0	50
14	Antifungal activity of thiosemicarbazones, bis(thiosemicarbazones), and their metal complexes. <i>Journal of Inorganic Biochemistry</i> , 2021, 225, 111620.	3.5	48
15	First {Fe <sup>II</sup> (NO)} <sub>6</sub> Complex with an N <sub>2</sub> S <sub>3</sub> Fe <sup>II</sup> (NO) Core as a Model of NO-Inactivated Iron-Containing Nitrile Hydratase. Are Thiolates and Thioethers Equivalent Donors in Low-Spin Iron Complexes?. <i>Inorganic Chemistry</i> , 2002, 41, 1039-1041.	4.0	47
16	Synthesis and Characterization of N <sub>2</sub> S <sub>3</sub> X <sup>II</sup> Fe Models of Iron-Containing Nitrile Hydratase. <i>Inorganic Chemistry</i> , 2003, 42, 4382-4388.	4.0	43
17	Metal-Stabilized Thiyl Radicals as Scaffolds for Reversible Alkene Addition via C <sup>II</sup> -S Bond Formation/Cleavage. <i>Inorganic Chemistry</i> , 2011, 50, 9904-9914.	4.0	43
18	Density functional theory investigations of NiN <sub>2</sub> S <sub>2</sub> reactivity as a function of nitrogen donor type and N <sup>II</sup> -H <sup>II</sup> -S hydrogen bonding inspired by nickel-containing superoxide dismutase. <i>Journal of Biological Inorganic Chemistry</i> , 2006, 11, 617-625.	2.6	42

#	ARTICLE	IF	CITATIONS
19	Synthesis, Characterization, and Biological Activity of Hybrid Thiosemicarbazone-alkylthiocarbamate Metal Complexes. <i>Inorganic Chemistry</i> , 2020, 59, 4924-4935.	4.0	40
20	Synthesis and Sulfur Oxygenation of a (N <sub>3</sub> S)Ni Complex Related to Nickel-Containing Superoxide Dismutase. <i>Inorganic Chemistry</i> , 2009, 48, 9974-9976.	4.0	39
21	Redox-Regulated Ethylene Binding to a Rhenium-Thiolate Complex. <i>Journal of the American Chemical Society</i> , 2009, 131, 64-65.	13.7	35
22	Dichloromethane Alkylates a Trithiolato-Ruthenium Complex to Yield a Methylene-Bridged Thioether Core. Synthesis and Structural Comparison to the Thiolato-Ruthenium Precursor. <i>Inorganic Chemistry</i> , 2002, 41, 4309-4311.	4.0	33
23	An Experimental and Computational Study of Sulfur-Modified Nucleophilicity in a Dianionic NiN <sub>2</sub> S <sub>2</sub> Complex. <i>Inorganic Chemistry</i> , 2007, 46, 7536-7544.	4.0	30
24	Hg(II) and Cd(II) complexes with mixed donor macrocyclic thioethers: The oxophobicity of mercury(II). <i>Polyhedron</i> , 2008, 27, 3097-3104.	2.2	30
25	Spin-state-dependent oxygen sensitivity of iron dithiolates: sulfur oxygenation or disulfide formation. <i>Journal of Biological Inorganic Chemistry</i> , 2008, 13, 1219-1230.	2.6	28
26	Asymmetric Oxygenation of a Ruthenium Dithiolate Mimics the Mixed Sulfenato/Sulfinato Donor Sets of Nitrile Hydratase and Thiocyanate Hydrolase. <i>Inorganic Chemistry</i> , 2010, 49, 5344-5346.	4.0	26
27	Singlet Diradical Character of an Oxidized Ruthenium Trithiolate: Electronic Structure and Reactivity. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 4085-4088.	13.8	25
28	Molecular and Electronic Structure of [MnVN(cyclam <sup>+</sup> acetato)]PF <sub>6</sub> . A Combined Experimental and DFT Study. <i>Inorganic Chemistry</i> , 2001, 40, 4191-4198.	4.0	24
29	Oxygenation of a Ruthenium(II) Thiolate to a Ruthenium(II) Sulfinato Proceeds via Ruthenium(III). <i>Inorganic Chemistry</i> , 2005, 44, 8185-8187.	4.0	24
30	Controlled Sulfur Oxygenation of the Ruthenium Dithiolate (4,7-Bis-(2- <sup>+</sup> methyl-2-mercaptopropyl)-1-thia-4,7-diazacyclononane)RuPPh <sub>3</sub> under Limiting O <sub>2</sub> Conditions Yields Thiolato/Sulfinato, Sulfenato/Sulfinato, and Bis-Sulfinato Derivatives. <i>Inorganic Chemistry</i> , 2010, 49, 10875-10881.	4.0	24
31	Influence of Sequential Thiolate Oxidation on a Nitrile Hydratase Mimic Probed by Multiedge X-ray Absorption Spectroscopy. <i>Inorganic Chemistry</i> , 2012, 51, 6032-6045.	4.0	24
32	Electrochemical Investigations of the [Tris(2-(diphenylphosphino)thiaphenolato)ruthenate(II)] Monoanion Reveal Metal- and Ligand-Centered Events: Radical, Reactivity, and Rate. <i>Inorganic Chemistry</i> , 2004, 43, 3292-3298.	4.0	23
33	Electrocatalytic Hydrogen Evolution and Oxidation with Rhenium Tris(thiolate) Complexes: A Competition between Rhenium and Sulfur for Electrons and Protons. <i>ACS Catalysis</i> , 2020, 10, 3778-3789.	11.2	22
34	Carbon-Sulfur Bond Formation between a Ruthenium-Coordinated Thiyl Radical and Methyl Ketones. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 1883-1887.	13.8	21
35	Synthesis and structure of the tetradeca-iron(III) oxide-alkoxide cluster [Bu <sub>4</sub> N] <sub>2</sub> [Fe <sub>14</sub> O <sub>8</sub> (OCH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub> OCl <sub>8</sub> ]. <i>Inorganic Chemistry Communication</i> , 2006, 9, 1204-1206.	3.9	20
36	Carbon-Sulfur Bond Formation via Alkene Addition to an Oxidized Ruthenium Thiolate. <i>Inorganic Chemistry</i> , 2007, 46, 8044-8050.	4.0	19

#	ARTICLE	IF	CITATIONS
37	Exploiting Metal-Ligand Cooperativity to Sequester, Activate, and Reduce Atmospheric Carbon Dioxide with a Neutral Zinc Complex. <i>Inorganic Chemistry</i> , 2020, 59, 4835-4841.	4.0	19
38	Bioinspired catalytic nitrile hydration by dithiolato, sulfinato/thiolato, and sulfenato/sulfinato ruthenium complexes. <i>Chemical Communications</i> , 2013, 49, 294-296.	4.1	18
39	Correlation of electrochemistry, nucleophilicity and density functional calculations of the cis-dithiolate (bme <sup>+</sup> -daco)Ni. <i>Inorganica Chimica Acta</i> , 2000, 300-302, 73-81.	2.4	17
40	Electrocatalytic Hydrogen Evolution and Hydrogen Oxidation with a Ni(PS) <sub>2</sub> Complex. <i>European Journal of Inorganic Chemistry</i> , 2017, 2017, 3714-3719.	2.0	17
41	The pH and Potential Dependence of Pb-Catalyzed Electrochemical CO <sub>2</sub> Reduction to Methyl Formate in a Dual Methanol/Water Electrolyte. <i>ChemSusChem</i> , 2022, 15, .	6.8	17
42	Synthesis and Dimer Cleavage Reactions of the N <sub>2</sub> S Thiolate Bridged Dimer [(mmp-dach) <sub>2</sub> Ni <sub>2</sub> ]Cl <sub>2</sub> . <i>Inorganic Chemistry</i> , 1999, 38, 3698-3703.	4.0	16
43	Kinetic study of nickel-thiolate oxygenation by hydrogen peroxide. Implications for nickel-containing superoxide dismutase. <i>Dalton Transactions</i> , 2012, 41, 364-366.	3.3	16
44	Translation of Ligand-Centered Hydrogen Evolution Reaction Activity and Mechanism of a Rhenium-Thiolate from Solution to Modified Electrodes: A Combined Experimental and Density Functional Theory Study. <i>Inorganic Chemistry</i> , 2017, 56, 2177-2187.	4.0	16
45	Kinetic Effects of Sulfur Oxidation on Catalytic Nitrile Hydration: Nitrile Hydratase Insights from Bioinspired Ruthenium(II) Complexes. <i>Inorganic Chemistry</i> , 2014, 53, 12372-12377.	4.0	15
46	Chemiresistive metal-stabilized thiyl radical films as highly selective ethylene sensors. <i>RSC Advances</i> , 2014, 4, 46787-46790.	3.6	14
47	Utilizing Charge Effects and Minimizing Intramolecular Proton Rearrangement to Improve the Overpotential of a Thiosemicarbazonato Zinc HER Catalyst. <i>Inorganic Chemistry</i> , 2019, 58, 12986-12997.	4.0	14
48	Substrate Binding Preferences and p <i>K<sub>a</sub></i> Determinations of a Nitrile Hydratase Model Complex: Variable Solvent Coordination to [(bmmp-TASN)Fe]OTf. <i>Inorganic Chemistry</i> , 2009, 48, 2300-2308.	4.0	13
49	Structural comparison of alkylated derivatives of (bmmp-dmed)Ni and (bmmp-dmed)Zn. <i>Inorganica Chimica Acta</i> , 2005, 358, 623-632.	2.4	12
50	Copper catalysed aerobic oxidation of benzylic alcohols in an imidazole containing N <sub>4</sub> ligand framework. <i>Dalton Transactions</i> , 2016, 45, 18356-18364.	3.3	12
51	Photocatalytic hydrogen evolution on Si photocathodes modified with bis(thiosemicarbazonato)nickel( <i>scp</i> <sub>ii</sub> )/Nafion. <i>Chemical Communications</i> , 2019, 55, 9440-9443.	4.1	12
52	Direct Deposition of Nonaqueous SnO <sub>2</sub> Dispersion by Blade Coating on Perovskites for the Scalable Fabrication of <i>pn</i> Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 0, , .	5.1	12
53	Alkyne Addition to a Metal-Stabilized Thiyl Radical: Carbon-Sulfur Bond Formation between 1-Octyne and [Ru(SP) <sub>3</sub> ] <sup>+</sup> . <i>European Journal of Inorganic Chemistry</i> , 2012, 2012, 475-478.	2.0	11
54	Reversible methanol addition to copper Schiff base complexes: a kinetic, structural and spectroscopic study of reactions at azomethine C=N bonds. <i>Dalton Transactions</i> , 2016, 45, 15791-15799.	3.3	11

#	ARTICLE	IF	CITATIONS
55	Ligand-Centered Hydrogen Evolution with Ni(II) and Pd(II)DMTH. <i>Inorganic Chemistry</i> , 2022, 61, 9792-9800.	4.0	10
56	Synthesis, Characterization, and HER Activity of Pendant Diamine Derivatives of Ni(II)ATSM. <i>European Journal of Inorganic Chemistry</i> , 2019, 2019, 3782-3790.	2.0	9
57	Copper bis(thiosemicarbazone) Complexes with Pendant Polyamines: Effects of Proton Relays and Charged Moieties on Electrocatalytic HER. <i>European Journal of Inorganic Chemistry</i> , 2021, 2021, 267-275.	2.0	9
58	Alkylation-Induced O-Atom Rearrangement in Nickel S-Oxygenates. <i>Organometallics</i> , 1998, 17, 4813-4821.	2.3	8
59	Selective and Reversible Base-Induced Elimination of a Ruthenium Dithioether Yields a Vinyl Metallosulfonium Complex. <i>Inorganic Chemistry</i> , 2012, 51, 7913-7920.	4.0	8
60	DNA-induced assembly of gold nanoprisms and polystyrene beads into 3D plasmonic SERS substrates. <i>Nanotechnology</i> , 2021, 32, 025506.	2.6	8
61	1,5-Bis(benzothiazolyl)-3-thiapentane and its asymmetric dinuclear Ag(I) complex with three distinct intermolecular-stacking interactions Electronic supplementary information (ESI) available: 3D rotatable structures of 2 and 3. See <a href="http://www.rsc.org/suppdata/cc/b2/b204843d/">http://www.rsc.org/suppdata/cc/b2/b204843d/</a> . <i>Chemical Communications</i> , 2002, , 1792-1793.	4.1	7
62	Addition of polysubstituted alkenes, aromatic alkynes, and dienes to a metal-stabilized thiyl radical via carbon-sulfur bond formation: Electrochemical, chemical, and computational investigations. <i>Inorganica Chimica Acta</i> , 2013, 408, 1-8.	2.4	7
63	Hydrogen-bond networks in the mono- and diprotonated cyclic diamine [9]aneN <sub>2</sub> S. <i>Journal of Chemical Crystallography</i> , 2004, 34, 5-11.	1.1	6
64	Template synthesis of N <sub>2</sub> S and N <sub>3</sub> S chelates via alkylation of bis(2-aminoethanethiolato)Ni: sulfur- and nitrogen-centered alkylations. <i>Inorganica Chimica Acta</i> , 2005, 358, 123-130.	2.4	6
65	1,5-Diazacyclooctane, Pendant Arm Thiolato Derivatives and [Ni(II)-Bis(2-Mercaptoethyl)-1,5-Diazacyclooctanato]Nickel(II). <i>Inorganic Syntheses</i> , 2007, , 89-98.	0.3	6
66	N <sub>2</sub> S <sub>3</sub> X-Fe Models of Nitrile Hydratase. <i>ACS Symposium Series</i> , 2009, , 99-113.	0.5	6
67	Probing the Reactivity and Radical Nature of Oxidized Transition Metal-Thiolate Complexes by Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2013, 24, 502-512.	2.8	6
68	Effect of Stacking Interactions on the Translation of Structurally Related Bis(thiosemicarbazonato)nickel(II) HER Catalysts to Modified Electrode Surfaces. <i>Inorganic Chemistry</i> , 2019, 58, 12025-12039.	4.0	6
69	Syntheses, structures, and electrochemical studies of Ni(II)-bis(alkylthiocarbamate)butane-2,3-dimine Cu(II) complexes as pendant alkoxy derivatives of Cu(ATSM). <i>Inorganica Chimica Acta</i> , 2017, 461, 45-51.	2.4	5
70	Streams, cascades, and pools: various water cluster motifs in structurally similar Ni(II) complexes. <i>CrystEngComm</i> , 2018, 20, 7071-7081.	2.6	5
71	cis-Dioxocyclam. <i>Acta Crystallographica Section C: Crystal Structure Communications</i> , 2002, 58, o226-o227.	0.4	4
72	Facet-selective asymmetric functionalization of anisotropic gold nanoprisms for Janus particle synthesis. <i>Journal of Nanoparticle Research</i> , 2020, 22, 1.	1.9	4

#	ARTICLE	IF	CITATIONS
73	Synthesis, Structure, and Solution Properties of [(mim-TASN)FeCl <sub>2</sub> ] <sup>+</sup> and Its 1/4-Oxo Derivative. <i>Inorganic Chemistry</i> , 2010, 49, 10427-10435.	4.0	3
74	N-(2-formyl-1-methylimidazol-4-yl)-2,2-dimethylpropanamide: a versatile reagent for preparing imidazole-amine ligands with variable second-coordination spheres. <i>Tetrahedron Letters</i> , 2011, 52, 4771-4774.	1.4	3
75	Supramolecular assembly of a dinuclear Ag(I) complex with discreet Ag <sub>2</sub> S <sub>2</sub> centers. <i>Inorganic Chemistry Communication</i> , 2009, 12, 1091-1093.	3.9	2
76	Metal-centered oxidation decreases nitrile hydration activity of bioinspired (N <sub>2</sub> S <sub>3</sub> )Ru-PPh <sub>3</sub> precatalysts. <i>Inorganic Chemistry Communication</i> , 2015, 61, 197-199.	3.9	2
77	Water wire clusters in isostructural Cu(II) and Ni(II) complexes: Synthesis, characterization, and thermal analyses. <i>Inorganica Chimica Acta</i> , 2019, 492, 268-274.	2.4	2
78	DNA-mediated hierarchical organization of gold nanoprisms into 3D aggregates and their application in surface-enhanced Raman scattering. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 25256-25263.	2.8	2
79	Solvation of NiOx for hole transport layer deposition in perovskite solar cells. <i>Nanotechnology</i> , 2021, 33, .	2.6	2
80	Investigations of Bis(alkylthiocarbamato)copper Linkage Isomers. <i>Inorganic Chemistry</i> , 2022, 61, 7715-7719.	4.0	2
81	Ethyl 1-methylimidazole-2-carboxylate. <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2006, 62, o1548-o1549.	0.2	1
82	{3,3'-[Ethane-1,2-diylbis(methylimino)]bis(propane-1-thiolato)}nickel(II). <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2007, 63, m2281-m2281.	0.2	1
83	Reinvestigation of the first structurally characterized metal-coordinated sulfenic acid complex. <i>Inorganic Chemistry Communication</i> , 2013, 37, 186-188.	3.9	1
84	Sulfur Oxygenation Enhances Ligand Exchange in Nitrile-Hydratase-Inspired Ruthenium(II) Complexes. <i>ACS Symposium Series</i> , 2013, , 71-87.	0.5	1