Rosalie K Hocking

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3455430/publications.pdf

Version: 2024-02-01

90 papers	5,647 citations	76294 40 h-index	76872 74 g-index
93 all docs	93 docs citations	93 times ranked	7421 citing authors

#	Article	IF	Citations
1	Theoretical study of K3Sb/graphene heterostructure for electrochemical nitrogen reduction reaction. Frontiers of Physics, 2022, 17, 1.	2.4	4
2	Electron shuttle-induced oxidative transformation of arsenite on the surface of goethite and underlying mechanisms. Journal of Hazardous Materials, 2022, 425, 127780.	6.5	21
3	Impurity Tolerance of Unsaturated Ni-N-C Active Sites for Practical Electrochemical CO₂ Reduction. ACS Energy Letters, 2022, 7, 920-928.	8.8	47
4	Characterization of Energy Materials with X-ray Absorption Spectroscopyâ”€Advantages, Challenges, and Opportunities. Energy & Fuels, 2022, 36, 2369-2389.	2.5	19
5	Durable Electrooxidation of Acidic Water Catalysed by a Cobaltâ€Bismuthâ€based Oxide Composite: An Unexpected Role of the Fâ€doped SnO₂ Substrate. ChemCatChem, 2022, 14, .	1.8	9
6	Redox Properties of Iron Sulfides: Direct <i>versus</i> Catalytic Reduction and Implications for Catalyst Design. ChemCatChem, 2022, 14, .	1.8	5
7	Photoactive semiconducting metal oxides: Hydrogen gas sensing mechanisms. International Journal of Hydrogen Energy, 2022, 47, 18208-18227.	3.8	12
8	Cover Feature: Redox Properties of Iron Sulfides: Direct <i>versus</i> Catalytic Reduction and Implications for Catalyst Design (ChemCatChem 12/2022). ChemCatChem, 2022, 14, .	1.8	0
9	Intrinsic Catalytic Activity for the Alkaline Hydrogen Evolution of Layer-Expanded MoS₂ Functionalized with Nanoscale Ni and Co Sulfides. ACS Sustainable Chemistry and Engineering, 2022, 10, 7117-7133.	3.2	6
10	Tuning the Coordination Structure of Cuï£¿Nï£¿C Single Atom Catalysts for Simultaneous Electrochemical Reduction of CO₂ and NO₃^{â€“} to Urea. Advanced Energy Materials, 2022, 12, .	10.2	98
11	Phase transformation of nanosized zero-valent iron modulated by As(III) determines heavy metal passivation. Water Research, 2022, 221, 118804.	5.3	18
12	Aggregation induced emission transformation of liquid and solid-state N-doped graphene quantum dots. Carbon, 2021, 175, 576-584.	5.4	30
13	In Situ Reconstruction of Vâ€Doped Ni₂P Preâ€Catalysts with Tunable Electronic Structures for Water Oxidation. Advanced Functional Materials, 2021, 31, 2100614.	7.8	129
14	Cobalt Electrochemical Recovery from Lithium Cobalt Oxides in Deep Eutectic Choline Chloride+Urea Solvents. ChemSusChem, 2021, 14, 2972-2983.	3.6	33
15	The search for intermediates formed during water-oxidation catalysis. Chem Catalysis, 2021, 1, 248-250.	2.9	1
16	Nitrogen Vacancy Induced Coordinative Reconstruction of Singleâ€Atom Ni Catalyst for Efficient Electrochemical CO₂ Reduction. Advanced Functional Materials, 2021, 31, 2107072.	7.8	89
17	Mixed metalâ€“antimony oxide nanocomposites: low pH water oxidation electrocatalysts with outstanding durability at ambient and elevated temperatures. Journal of Materials Chemistry A, 2021, 9, 27468-27484.	5.2	19
18	Exploration of TiO2 as substrates for single metal catalysts: A DFT study. Applied Surface Science, 2020, 533, 147362.	3.1	17

#	ARTICLE	IF	CITATIONS
19	Capturing the active sites of multimetallic (oxy)hydroxides for the oxygen evolution reaction. Energy and Environmental Science, 2020, 13, 4225-4237.	15.6	186
20	Implanting Ni-O-VOx sites into Cu-doped Ni for low-overpotential alkaline hydrogen evolution. Nature Communications, 2020, 11, 2720.	5.8	113
21	Extraction of metals from mildly acidic tropical soils: Interactions between chelating ligand, pH and soil type. Chemosphere, 2020, 248, 126060.	4.2	11
22	A Surfactantâ€Free and Scalable General Strategy for Synthesizing Ultrathin Twoâ€Dimensional Metalâ€“Organic Framework Nanosheets for the Oxygen Evolution Reaction. Angewandte Chemie, 2019, 131, 13699-13706.	1.6	64
23	A Surfactantâ€Free and Scalable General Strategy for Synthesizing Ultrathin Twoâ€Dimensional Metalâ€“Organic Framework Nanosheets for the Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2019, 58, 13565-13572.	7.2	205
24	Photon-Induced, Timescale, and Electrode Effects Critical for the in Situ X-ray Spectroscopic Analysis of Electrocatalysts: The Water Oxidation Case. Journal of Physical Chemistry C, 2019, 123, 28533-28549.	1.5	24
25	Evolution of Oxygenâ€“Metal Electron Transfer and Metal Electronic States During Manganese Oxide Catalyzed Water Oxidation Revealed with Inâ€…Situ Soft Xâ€Ray Spectroscopy. Angewandte Chemie, 2019, 131, 3464-3470.	1.6	28
26	Intrinsically stable in situ generated electrocatalyst for long-term oxidation of acidic water at up to 80â€‰Â°C. Nature Catalysis, 2019, 2, 457-465.	16.1	117
27	Overall electrochemical splitting of water at the heterogeneous interface of nickel and iron oxide. Nature Communications, 2019, 10, 5599.	5.8	475
28	Evolution of Oxygenâ€“Metal Electron Transfer and Metal Electronic States During Manganese Oxide Catalyzed Water Oxidation Revealed with Inâ€…Situ Soft Xâ€Ray Spectroscopy. Angewandte Chemie - International Edition, 2019, 58, 3426-3432.	7.2	52
29	Defectâ€Induced Ptâ€“Coâ€“Se Coordinated Sites with Highly Asymmetrical Electronic Distribution for Boosting Oxygenâ€Involving Electrocatalysis. Advanced Materials, 2019, 31, e1805581.	11.1	168
30	Highly dispersed and disordered nickelâ€“iron layered hydroxides and sulphides: robust and high-activity water oxidation catalysts. Sustainable Energy and Fuels, 2018, 2, 1561-1573.	2.5	29
31	Direct Formation of 2D-MnO_{<i>x</i>} under Conditions of Water Oxidation Catalysis. ACS Applied Nano Materials, 2018, 1, 1603-1611.	2.4	9
32	The Oxidation of Peroxide by Disordered Metal Oxides: A Measurement of Thermodynamic Stability â€œBy Proxyâ€ ChemPlusChem, 2018, 83, 620-629.	1.3	4
33	Oxidant or Catalyst for Oxidation? A Study of How Structure and Disorder Change the Selectivity for Direct versus Catalytic Oxidation Mediated by Manganese(III,IV) Oxides. Chemistry of Materials, 2018, 30, 8244-8256.	3.2	19
34	Insight into pHâ€Dependent Formation of Manganese Oxide Phases in Electrodeposited Catalytic Films Probed by Soft Xâ€Ray Absorption Spectroscopy. ChemPlusChem, 2018, 83, 721-727.	1.3	5
35	Tunable Biogenic Manganese Oxides. Chemistry - A European Journal, 2017, 23, 13482-13492.	1.7	8
36	NiFeCr Hydroxide Holey Nanosheet as Advanced Electrocatalyst for Water Oxidation. ACS Applied Materials & Interfaces, 2017, 9, 41239-41245.	4.0	96

#	ARTICLE	IF	CITATIONS
37	Engineering Disorder into Heterogeniteâ€•Like Cobalt Oxides by Phosphate Doping: Implications for the Design of Waterâ€•Oxidation Catalysts. ChemCatChem, 2017, 9, 511-521.	1.8	23
38	Ultrasmall CoO(OH)_{<i>x</i>} Nanoparticles As a Highly Efficient â€œTrueâ€•Cocatalyst in Porous Photoanodes for Water Splitting. ACS Catalysis, 2017, 7, 4759-4767.	5.5	50
39	Counting vacancies and nitrogen-vacancy centers in detonation nanodiamond. Nanoscale, 2016, 8, 10548-10552.	2.8	33
40	Probing the Fate of Mn Complexes in Nafion: A Combined Multifrequency EPR and XAS Study. Journal of Physical Chemistry C, 2016, 120, 853-861.	1.5	4
41	Highly efficient rutile TiO₂ photocatalysts with single Cu(<scp>ii</scp>) and Fe(<scp>iii</scp>) surface catalytic sites. Journal of Materials Chemistry A, 2016, 4, 3127-3138.	5.2	73
42	Engineering Disorder at a Nanoscale: A Combined TEM and XAS Investigation of Amorphous versus Nanocrystalline Sodium Birnessite. Australian Journal of Chemistry, 2015, 68, 1715.	0.5	13
43	Catalytic Activity and Impedance Behavior of Screenâ€•Printed Nickel Oxide as Efficient Water Oxidation Catalysts. ChemSusChem, 2015, 8, 4266-4274.	3.6	20
44	Effect of manganese oxide minerals and complexes on gold mobilization and speciation. Chemical Geology, 2015, 407-408, 10-20.	1.4	18
45	Forward and Reverse (Retro) Iron(III) or Gallium(III) Desferrioxamine E and Ring-Expanded Analogues Prepared Using Metal-Templated Synthesis from <i>endo</i>-Hydroxamic Acid Monomers. Inorganic Chemistry, 2015, 54, 3573-3583.	1.9	15
46	Electrosynthesis of Highly Transparent Cobalt Oxide Water Oxidation Catalyst Films from Cobalt Aminopolycarboxylate Complexes. ChemSusChem, 2015, 8, 1394-1403.	3.6	21
47	Formation of a Nanoparticulate Birnessiteâ€•Like Phase in Purported Molecular Water Oxidation Catalyst Systems. ChemCatChem, 2014, 6, 2028-2038.	1.8	29
48	Nanoscale structural disorder in manganese oxide particles embedded in Nafion. Journal of Materials Chemistry A, 2014, 2, 3730-3733.	5.2	24
49	Role of Advanced Analytical Techniques in the Design and Characterization of Improved Catalysts for Water Oxidation. , 2013, , 305-339.		3
50	Phosphorylated manganese oxide electrodeposited from ionic liquid as a stable, high efficiency water oxidation catalyst. Catalysis Today, 2013, 200, 36-40.	2.2	17
51	Highly active nickel oxide water oxidation catalysts deposited from molecular complexes. Energy and Environmental Science, 2013, 6, 579-586.	15.6	231
52	Iron L-Edge X-ray Absorption Spectroscopy of Oxy-Picket Fence Porphyrin: Experimental Insight into Feâ€“O₂ Bonding. Journal of the American Chemical Society, 2013, 135, 1124-1136.	6.6	81
53	Anodic deposition of NiOx water oxidation catalysts from macrocyclic nickel(ii) complexes. Catalysis Science and Technology, 2013, 3, 1725.	2.1	56
54	Improvement of Catalytic Water Oxidation on MnO_{<i>x</i>} Films by Heat Treatment. ChemSusChem, 2013, 6, 643-651.	3.6	71

#	ARTICLE	IF	CITATIONS
55	Highly active screen-printed electrocatalysts for water oxidation based on Î²-manganese oxide. Energy and Environmental Science, 2013, 6, 2222.	15.6	151
56	Redox Activity and Two-Step Valence Tautomerism in a Family of Dinuclear Cobalt Complexes with a Spiroconjugated Bis(dioxolene) Ligand. Journal of the American Chemical Society, 2013, 135, 8304-8323.	6.6	102
57	Water Oxidation Catalysis by Nanoparticulate Manganese Oxide Thin Films: Probing the Effect of the Manganese Precursors. Chemistry of Materials, 2013, 25, 1098-1108.	3.2	110
58	Reduction of the photocatalytic activity of ZnO nanoparticles for UV protection applications. International Journal of Nanotechnology, 2012, 9, 1017.	0.1	37
59	Preparation and Characterization of Catalysts for Clean Energy: A Challenge for X-rays and Electrons. Australian Journal of Chemistry, 2012, 65, 608.	0.5	12
60	Transformation of chlorine in NaCl-loaded Victorian brown coal during the gasification in steam. Journal of Fuel Chemistry and Technology, 2012, 40, 1409-1414.	0.9	7
61	Comment on â€œDirect Observation of Tetrahedrally Coordinated Fe(III) in Ferrihydriteâ€• Environmental Science & Technology, 2012, 46, 11471-11472.	4.6	7
62	A Two-Step Valence Tautomeric Transition in a Dinuclear Cobalt Complex. Inorganic Chemistry, 2012, 51, 3944-3946.	1.9	53
63	Towards Hydrogen Energy: Progress on Catalysts for Water Splitting. Australian Journal of Chemistry, 2012, 65, 577.	0.5	22
64	Electrodeposited MnO_x Films from Ionic Liquid for Electrocatalytic Water Oxidation. Advanced Energy Materials, 2012, 2, 1013-1021.	10.2	122
65	Cobalt complexes with tripodal ligands: implications for the design of drug chaperones. Dalton Transactions, 2012, 41, 11293.	1.6	50
66	Co-doped ZnO nanopowders: Location of cobalt and reduction in photocatalytic activity. Materials Chemistry and Physics, 2012, 132, 1035-1040.	2.0	105
67	Local structure and photocatalytic property of solâ€“gel synthesized ZnO doped with transition metal oxides. Journal of Materials Science, 2012, 47, 3150-3158.	1.7	31
68	Synchrotron-Based XANES Speciation of Chromium in the Oxy-Fuel Fly Ash Collected from Lab-Scale Drop-Tube Furnace. Environmental Science & Technology, 2011, 45, 6640-6646.	4.6	43
69	Water-oxidation catalysis by manganese in a geochemical-like cycle. Nature Chemistry, 2011, 3, 461-466.	6.6	479
70	Ligand Field and Molecular Orbital Theories of Transition Metal X-ray Absorption Edge Transitions. Structure and Bonding, 2011, , 155-184.	1.0	22
71	Rates of Water Exchange for Two Cobalt(II) Heteropolyoxotungstate Compounds in Aqueous Solution. Chemistry - A European Journal, 2011, 17, 4408-4417.	1.7	52
72	Arsenic Mobilization in a Seawater Inundated Acid Sulfate Soil. Environmental Science & Technology, 2010, 44, 1968-1973.	4.6	72

#	Article	IF	Citations
73	Fe L-Edge X-ray Absorption Spectroscopy Determination of Differential Orbital Covalency of Siderophore Model Compounds: Electronic Structure Contributions to High Stability Constants. Journal of the American Chemical Society, 2010, 132, 4006-4015.	6.6	68
74	Iron-Monosulfide Oxidation in Natural Sediments: Resolving Microbially Mediated S Transformations Using XANES, Electron Microscopy, and Selective Extractions. Environmental Science & Technology, 2009, 43, 3128-3134.	4.6	111
75	Fe L- and K-edge XAS of Low-Spin Ferric Corrole: Bonding and Reactivity Relative to Low-Spin Ferric Porphyrin. Inorganic Chemistry, 2009, 48, 1678-1688.	1.9	63
76	Sorption of Arsenic(V) and Arsenic(III) to Schwertmannite. Environmental Science & Technology, 2009, 43, 9202-9207.	4.6	221
77	Fe and S K-edge XAS determination of iron-sulfur species present in a range of acid sulfate soils: Effects of particle size and concentration on quantitative XANES determinations. Journal of Physics: Conference Series, 2009, 190, 012144.	0.3	6
78	Mobility of arsenic and selected metals during re-flooding of iron- and organic-rich acid-sulfate soil. Chemical Geology, 2008, 253, 64-73.	1.4	157
79	Geometric Structure Determination of N694C Lipoxygenase: A Comparative Near-Edge X-Ray Absorption Spectroscopy and Extended X-Ray Absorption Fine Structure Study. Inorganic Chemistry, 2008, 47, 11543-11550.	1.9	7
80	Fe L-Edge X-ray Absorption Spectroscopy of Low-Spin Heme Relative to Non-heme Fe Complexes:â€‰ Delocalization of Fe d-Electrons into the Porphyrin Ligand. Journal of the American Chemical Society, 2007, 129, 113-125.	6.6	137
81	Database Analysis of Transition Metal Carbonyl Bond Lengths:Â Insight into the Periodicity of Ï€ Back-Bonding, Ïƒ Donation, and the Factors Affecting the Electronic Structure of the TMâˆ’Câ‹®O Moiety. Organometallics, 2007, 26, 2815-2823.	1.1	56
82	DFT Study of the Systematic Variations in Metalâˆ’Ligand Bond Lengths of Coordination Complexes:Â the Crucial Role of the Condensed Phase. Inorganic Chemistry, 2007, 46, 8238-8244.	1.9	65
83	Fe L-Edge XAS Studies of K4[Fe(CN)6] and K3[Fe(CN)6]:Â A Direct Probe of Back-Bonding. Journal of the American Chemical Society, 2006, 128, 10442-10451.	6.6	215
84	X-ray Absorption Spectroscopy and Density Functional Theory Studies of [(H3buea)FeIII-X]n-(X = S2-, O2-,) Tj ETQq0 0 0 rgBT /Overlock American Chemical Society, 2006, 128, 9825-9833.	6.6	42
85	Structural measures of elementâ€“oxygen bond covalency from the changes to the delocalisation of the carboxylate ligand. Dalton Transactions, 2005, , 969-978.	1.6	11
86	Applying databases of small molecule crystal structures to understanding the interactions about biologically relevent metal centres. Journal of Inorganic Biochemistry, 2003, 96, 147.	1.5	1
87	Structural Measure of Metalâˆ’Ligand Covalency from the Bonding in Carboxylate Ligands. Inorganic Chemistry, 2003, 42, 2833-2835.	1.9	40
88	Structural insights into transition-metal carbonyl bonding. Chemical Communications, 2003, , 1516-1517.	2.2	5
89	Statistical and Molecular Mechanics Analysis of the Effects of Changing Donor Type on Bond Length in the Two Series [CoIIINnO6-n] and [NiIINnO6-n] (n= 0âˆ’6):Â A New Route to Bond-Stretch Parameters. Inorganic Chemistry, 2002, 41, 2660-2666.	1.9	7
90	Insights into the van der Waals Radius of Low-Spin Ni(ii) fromMolecular Mechanics Studies and the Crystal Structures of [Ni(cis-cyclohexane-1,3-diamine)2]Cl2, [Ni{(R)-5,5,7-trimethyl-1,4-diazacycloheptane}2]Cl2Â·H2O and [Ni(5,7-dimethyl-1,4-diazacycloheptane)2](ClO4)2. Synthesis of 5,7-Dimethyl-1,4-diazacycloheptane and an Improved Synthesis of cis-Cyclohexane-1,3-diamine. Australian Journal of Chemistry, 2002, 55, 523.	0.5	5