Sascha Ott

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3205373/publications.pdf

Version: 2024-02-01

121
papers

5,932
citations

76326
40
h-index

79698
73
g-index

136
all docs

136
docs citations

136
times ranked

5413
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced Photochemical Hydrogen Production by a Molecular Diiron Catalyst Incorporated into a Metalâ€“Organic Framework. Journal of the American Chemical Society, 2013, 135, 16997-17003.	13.7	501
2	Biomimetic and Microbial Approaches to Solar Fuel Generation. Accounts of Chemical Research, 2009, 42, 1899-1909.	15.6	403
3	Iron hydrogenase active site mimics in supramolecular systems aiming for light-driven hydrogen production. Coordination Chemistry Reviews, 2005, 249, 1653-1663.	18.8	267
4	A Biomimetic Pathway for Hydrogen Evolution from a Model of the Iron Hydrogenase Active Site. Angewandte Chemie - International Edition, 2004, 43, 1006-1009.	13.8	232
5	Highâ€Turnover Photochemical Hydrogen Production Catalyzed by a Model Complex of the [FeFe]â€Hydrogenase Active Site. Chemistry - A European Journal, 2010, 16, 60-63.	3.3	201
6	Synthesis and Structure of a Biomimetic Model of the Iron Hydrogenase Active Site Covalently Linked to a Ruthenium Photosensitizer. Angewandte Chemie - International Edition, 2003, 42, 3285-3288.	13.8	191
7	Iron hydrogenase active site mimic holding a proton and a hydride. Chemical Communications, 2006, , 520-522.	4.1	154
8	Model of the Iron Hydrogenase Active Site Covalently Linked to a Ruthenium Photosensitizer:Â Synthesis and Photophysical Properties. Inorganic Chemistry, 2004, 43, 4683-4692.	4.0	136
9	Electrocatalytic Hydrogen Evolution from a Cobaloxime-Based Metalâ€“Organic Framework Thin Film. Journal of the American Chemical Society, 2019, 141, 15942-15950.	13.7	135
10	Spectroscopically characterized intermediates of catalytic H2 formation by [FeFe] hydrogenase models. Energy and Environmental Science, 2011, 4, 2340.	30.8	130
11	Tuning the electronic properties of Fe2(Î¼-arenedithiolate)(CO)6âˆ’n(PMe3)n (n=0, 2) complexes related to the [Feâ€“Fe]-hydrogenase active site. Comptes Rendus Chimie, 2008, 11, 875-889.	0.5	127
12	Introducing a dark reaction to photochemistry: photocatalytic hydrogen from [FeFe] hydrogenase active site model complexes. Dalton Transactions, 2009, , 9952.	3.3	122
13	Water Oxidation Catalyzed by a Dinuclear Cobaltâ€“Polypyridine Complex. Angewandte Chemie - International Edition, 2014, 53, 14499-14502.	13.8	114
14	Development of a UiO-Type Thin Film Electrocatalysis Platform with Redox-Active Linkers. Journal of the American Chemical Society, 2018, 140, 2985-2994.	13.7	113
15	Functionalization of robust Zr(<scp>iv</scp>)-based metalâ€“organic framework films via a postsynthetic ligand exchange. Chemical Communications, 2015, 51, 66-69.	4.1	107
16	Bio-inspired, side-on attachment of a ruthenium photosensitizer to an iron hydrogenase active site model. Dalton Transactions, 2006, , 4599-4606.	3.3	105
17	Light-Driven Electron Transfer between a Photosensitizer and a Proton-Reducing Catalyst Co-adsorbed to NiO. Journal of the American Chemical Society, 2012, 134, 19322-19325.	13.7	95
18	Concerted proton-coupled electron transfer from a metal-hydride complex. Nature Chemistry, 2015, 7, 140-145.	13.6	88

#	Article	IF	Citations
19	Directing protonation in [FeFe] hydrogenase active site models by modifications in their second coordination sphere. Chemical Communications, 2010, 46, 5775.	4.1	79
20	Electrocatalytic water oxidation by a molecular catalyst incorporated into a metalâ€“organic framework thin film. Dalton Transactions, 2017, 46, 1382-1388.	3.3	79
21	Activating a Low Overpotential CO₂ Reduction Mechanism by a Strategic Ligand Modification on a Ruthenium Polypyridyl Catalyst. Angewandte Chemie - International Edition, 2016, 55, 1825-1829.	13.8	78
22	Accelerating proton-coupled electron transfer of metal hydrides in catalyst model reactions. Nature Chemistry, 2018, 10, 881-887.	13.6	78
23	Analysis of electrocatalytic metal-organic frameworks. Coordination Chemistry Reviews, 2020, 406, 213137.	18.8	77
24	Structural dynamics inside a functionalized metalâ€“organic framework probed by ultrafast 2D IR spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 18442-18447.	7.1	76
25	Transport Phenomena: Challenges and Opportunities for Molecular Catalysis in Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2020, 142, 11941-11956.	13.7	74
26	Dynamics and Photochemical H₂ Evolution of Dyeâ€“NiO Photocathodes with a Biomimetic FeFe-Catalyst. ACS Energy Letters, 2016, 1, 1106-1111.	17.4	70
27	Water oxidation catalysed by a mononuclear Co^{II} polypyridine complex; possible reaction intermediates and the role of the chloride ligand. Chemical Communications, 2015, 51, 13074-13077.	4.1	62
28	Ultrafast Electron Transfer Between Dye and Catalyst on a Mesoporous NiO Surface. Journal of the American Chemical Society, 2016, 138, 8060-8063.	13.7	60
29	(I,0) Mixed-Valence State of a Diiron Complex with Pertinence to the [FeFe]-Hydrogenase Active Site: An IR, EPR, and Computational Study. Inorganic Chemistry, 2009, 48, 10883-10885.	4.0	57
30	Mechanistic insights into electrocatalytic CO₂ reduction within [Ru^{II}(tpy)(NN)X]ⁿ⁺ architectures. Dalton Transactions, 2014, 43, 15028-15037.	3.3	57
31	Iron Pentapyridyl Complexes as Molecular Water Oxidation Catalysts: Strong Influence of a Chloride Ligand and pH in Altering the Mechanism. ChemSusChem, 2016, 9, 1178-1186.	6.8	57
32	Pentacoordinate iron complexes as functional models of the distal iron in [FeFe] hydrogenases. Chemical Communications, 2011, 47, 11662.	4.1	55
33	Dynamic ligation at the first amine-coordinated iron hydrogenase active site mimic. Chemical Communications, 2006, , 4206-4208.	4.1	52
34	Direct Observation of Key Catalytic Intermediates in a Photoinduced Proton Reduction Cycle with a Diiron Carbonyl Complex. Journal of the American Chemical Society, 2014, 136, 17366-17369.	13.7	49
35	Isolating the Effects of the Proton Tunneling Distance on Proton-Coupled Electron Transfer in a Series of Homologous Tyrosine-Base Model Compounds. Journal of the American Chemical Society, 2017, 139, 2090-2101.	13.7	48
36	Ironing Out Hydrogen Storage. Science, 2011, 333, 1714-1715.	12.6	45

#	ARTICLE	IF	CITATIONS
37	Facilitated Hydride Binding in an Feâˆ’Fe Hydrogenase Activeâˆ’Site Biomimic Revealed by X-ray Absorption Spectroscopy and DFT Calculations. Inorganic Chemistry, 2007, 46, 11094-11105.	4.0	43
38	Photoelectrochemical Hydrogen Generation by an [FeFe] Hydrogenase Active Site Mimic at a <i>p</i>â€Type Silicon/Molecular Electrocatalyst Junction. Chemistry - A European Journal, 2012, 18, 1295-1298.	3.3	43
39	Coordination and conformational isomers in mononuclear iron complexes with pertinence to the [FeFe] hydrogenase active site. Dalton Transactions, 2014, 43, 4537-4549.	3.3	43
40	Catalyst accessibility to chemical reductants in metalâ€“organic frameworks. Chemical Communications, 2017, 53, 3257-3260.	4.1	42
41	Mixed-valence [FeIFeII] hydrogenase active site model complexes stabilized by a bidentate carborane bis-phosphine ligand. Dalton Transactions, 2012, 41, 12468.	3.3	40
42	Title is missing!. Angewandte Chemie, 2003, 115, 3407-3410.	2.0	39
43	Catalytic systems mimicking the [FeFe]-hydrogenase active site for visible-light-driven hydrogen production. Coordination Chemistry Reviews, 2021, 448, 214172.	18.8	38
44	Electronic Structure of an [FeFe] Hydrogenase Model Complex in Solution Revealed by X-ray Absorption Spectroscopy Using Narrow-Band Emission Detection. Journal of the American Chemical Society, 2012, 134, 14142-14157.	13.7	36
45	Light-driven hydrogen evolution catalyzed by a cobaloxime catalyst incorporated in a MIL-101(Cr) metalâ€“organic framework. Sustainable Energy and Fuels, 2018, 2, 1148-1152.	4.9	36
46	Judicious Ligand Design in Ruthenium Polypyridyl CO₂ Reduction Catalysts to Enhance Reactivity by Steric and Electronic Effects. Chemistry - A European Journal, 2016, 22, 14870-14880.	3.3	35
47	Hydrogen evolution with nanoengineered ZnO interfaces decorated using a beetroot extract and a hydrogenase mimic. Sustainable Energy and Fuels, 2017, 1, 69-73.	4.9	35
48	Photochemical Hydrogen Production with Metalâ€“Organic Frameworks. Topics in Catalysis, 2016, 59, 1712-1721.	2.8	34
49	Comparing the Reactivity of Benzenedithiolate- versus Alkyldithiolate-Bridged Fe2(CO)6 Complexes with Competing Ligands. European Journal of Inorganic Chemistry, 2011, 2011, 1106-1111.	2.0	33
50	Structural features of molecular electrocatalysts in multi-electron redox processes for renewable energy â€“ recent advances. Sustainable Energy and Fuels, 2019, 3, 2159-2175.	4.9	31
51	Elucidating Proton-Coupled Electron Transfer Mechanisms of Metal Hydrides with Free Energy- and Pressure-Dependent Kinetics. Journal of the American Chemical Society, 2019, 141, 17245-17259.	13.7	30
52	Site-Selective X-ray Spectroscopy on an Asymmetric Model Complex of the [FeFe] Hydrogenase Active Site. Inorganic Chemistry, 2012, 51, 4546-4559.	4.0	28
53	What Limits Photon Upconversion on Mesoporous Thin Films Sensitized by Solution-Phase Absorbers?. Journal of Physical Chemistry C, 2015, 119, 4550-4564.	3.1	28
54	Photon Upconversion from Chemically Bound Triplet Sensitizers and Emitters on Mesoporous ZrO₂: Implications for Solar Energy Conversion. Journal of Physical Chemistry C, 2015, 119, 25792-25806.	3.1	27

#	ARTICLE	IF	CITATIONS
55	[FeFe] Hydrogenase active site model chemistry in a UiO-66 metalâ€"organic framework. Chemical Communications, 2017, 53, 5227-5230.	4.1	27
56	Uniform distribution of post-synthetic linker exchange in metalâ€"organic frameworks revealed by Rutherford backscattering spectrometry. Chemical Communications, 2017, 53, 6516-6519.	4.1	27
57	Mimicking the Electron Transport Chain and Active Site of [FeFe] Hydrogenases in One Metalâ€"Organic Framework: Factors That Influence Charge Transport. Journal of the American Chemical Society, 2021, 143, 7991-7999.	13.7	25
58	Mechanism of the Phosphaâ€Wittigâ€"Horner Reaction. Angewandte Chemie - International Edition, 2013, 52, 6484-6487.	13.8	23
59	Unsymmetrical <i>E</i>-Alkenes from the Stereoselective Reductive Coupling of Two Aldehydes. Journal of the American Chemical Society, 2017, 139, 2940-2943.	13.7	23
60	Activating a Low Overpotential CO₂ Reduction Mechanism by a Strategic Ligand Modification on a Ruthenium Polypyridyl Catalyst. Angewandte Chemie, 2016, 128, 1857-1861.	2.0	22
61	Direct evidence of catalyst reduction on dye and catalyst co-sensitized NiO photocathodes by mid-infrared transient absorption spectroscopy. Chemical Science, 2018, 9, 4983-4991.	7.4	21
62	Synthesis of the first metal-free phosphanylphosphonate and its use in the â€œphosphaâ€"Wittigâ€"Hornerâ€• reaction. Dalton Transactions, 2016, 45, 2201-2207.	3.3	20
63	Homogeneous Water Oxidation by Halfâ€•Sandwich Iridium(III) Nâ€•Heterocyclic Carbene Complexes with Pendant Hydroxy and Amino Groups. ChemSusChem, 2017, 10, 4616-4623.	6.8	20
64	Alternative Synthesis and Structures of <i>C</i>â€•monoacetylenic Phosphaalkenes. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2012, 638, 2219-2224.	1.2	19
65	Oxaphospholes and Bisphospholes from Phosphinophosphonates and Î±,Î²â€•Unsaturated Ketones. Chemistry - A European Journal, 2013, 19, 13692-13704.	3.3	19
66	Cascade Reactions Forming Highly Substituted, Conjugated Phospholes and 1,2â€•Oxaphospholes. Angewandte Chemie - International Edition, 2012, 51, 7776-7780.	13.8	18
67	1,4-Disilacyclohexa-2,5-diene: a molecular building block that allows for remarkably strong neutral cyclic cross-hyperconjugation. Chemical Science, 2014, 5, 360-371.	7.4	18
68	Tuning the Electronic Properties of Acetylenic Fluorenes by Phosphaalkene Incorporation. Chemistry - A European Journal, 2016, 22, 4247-4255.	3.3	18
69	Formal water oxidation turnover frequencies from MIL-101(Cr) anchored Ru(bda) depend on oxidant concentration. Chemical Communications, 2018, 54, 7770-7773.	4.1	18
70	Microscopic Insights into Cation-Coupled Electron Hopping Transport in a Metalâ€"Organic Framework. Journal of the American Chemical Society, 2022, 144, 5910-5920.	13.7	18
71	Evaluation of two- and three-dimensional electrode platforms for the electrochemical characterization of organometallic catalysts incorporated in non-conducting metalâ€"organic frameworks. Dalton Transactions, 2017, 46, 4907-4911.	3.3	17
72	Post synthetic exchange enables orthogonal click chemistry in a metal organic framework. Dalton Transactions, 2019, 48, 45-49.	3.3	17

#	Article	IF	Citations
73	Understanding the Performance of NiO Photocathodes with Alkyl-Derivatized Cobalt Catalysts and a Pushâ€“Pull Dye. ACS Applied Materials & Interfaces, 2020, 12, 31372-31381.	8.0	16
74	Toward Metathesis Reactions on Vinylphosphaalkenes. Phosphorus, Sulfur and Silicon and the Related Elements, 2013, 188, 152-158.	1.6	15
75	Cooperative Gold Nanoparticle Stabilization by Acetylenic Phosphaalkenes. Angewandte Chemie - International Edition, 2015, 54, 10634-10638.	13.8	15
76	Enhancing photovoltages at p-type semiconductors through a redox-active metal-organic framework surface coating. Nature Communications, 2020, 11, 5819.	12.8	15
77	Human ride comfort prediction of drive train using modeling method based on artificial neural networks. International Journal of Automotive Technology, 2015, 16, 153-166.	1.4	14
78	Facile Orientational Control of M2L2P SURMOFs on âŸ¨100âŸ© Silicon Substrates and Growth Mechanism Insights for Defective MOFs. ACS Applied Materials & Interfaces, 2019, 11, 38294-38302.	8.0	14
79	The 6,6â€Dicyanopentafulvene Core: A Template for the Design of Electronâ€Acceptor Compounds. Chemistry - A European Journal, 2015, 21, 8168-8176.	3.3	13
80	One-Pot Intermolecular Reductive Cross-Coupling of Deactivated Aldehydes to Unsymmetrically 1,2-Disubstituted Alkenes. Organic Letters, 2018, 20, 5086-5089.	4.6	13
81	Restricted rotation of an Fe(CO)₂(PL₃)-subunit in [FeFe]-hydrogenase active site mimics by intramolecular ligation. Dalton Transactions, 2019, 48, 5933-5939.	3.3	13
82	Structural and spectroscopic characterization of tetranuclear iron complexes containing a bridge. Journal of Coordination Chemistry, 2012, 65, 2713-2723.	2.2	12
83	Direct, Sequential, and Stereoselective Alkynylation of <i>C,C</i>â€Dibromophosphaalkenes. Chemistry - A European Journal, 2016, 22, 10614-10619.	3.3	12
84	Mechanism of the Phosphaâ€Wittigâ€“Horner Reaction. Angewandte Chemie, 2013, 125, 6612-6615.	2.0	11
85	Redox Switching in Ethenylâ€Bridged Bisphospholes. Chemistry - A European Journal, 2014, 20, 16083-16087.	3.3	11
86	Tuning the Optical Properties of 1,1â€²â€Biphospholes by Chemical Alterations of the Pâ€“P Bridge. European Journal of Inorganic Chemistry, 2014, 2014, 1760-1766.	2.0	11
87	Self-Quenching and Slow Hole Injection May Limit the Efficiency in NiO-Based Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2018, 122, 13902-13910.	3.1	11
88	Using Surface Amide Couplings to Assemble Photocathodes for Solar Fuel Production Applications. ACS Applied Materials & Interfaces, 2020, 12, 4501-4509.	8.0	11
89	Watching the dynamics of electrons and atoms at work in solar energy conversion. Faraday Discussions, 2015, 185, 51-68.	3.2	10
90	Reductive coupling of two aldehydes to unsymmetrical <i>E</i>-alkenes <i>via</i> phosphaalkene and phosphinate intermediates. Chemical Communications, 2018, 54, 7163-7166.	4.1	10

#	ARTICLE	IF	CITATIONS
91	Direct Spectroscopic Detection of Key Intermediates and the Turnover Process in Catalytic H 2 Formation by a Biomimetic Diiron Catalyst. Chemistry - A European Journal, 2019, 25, 11135-11140.	3.3	10
92	Training responsible engineers. Phronesis and the role of virtues in teaching engineering ethics. Australasian Journal of Engineering Education, 2021, 26, 25-37.	1.4	10
93	Ultrafast Dynamics in Cu-Deficient CuInS₂ Quantum Dots: Sub-Bandgap Transitions and Self-Assembled Molecular Catalysts. Journal of Physical Chemistry C, 2021, 125, 14751-14764.	3.1	9
94	Immobilising molecular Ru complexes on a protective ultrathin oxide layer of p-Si electrodes towards photoelectrochemical CO₂ reduction. Dalton Transactions, 2021, 50, 10482-10492.	3.3	9
95	Synthesis and IR Spectroelectrochemical Studies of a [60]Fulleropyrrolidineâ€(tricarbonyl)chromium Complex: Probing C₆₀ Redox States by IR Spectroscopy. European Journal of Inorganic Chemistry, 2011, 2011, 1744-1749.	2.0	8
96	Electronic and molecular structure relations in diiron compounds mimicking the [FeFe]-hydrogenase active site studied by X-ray spectroscopy and quantum chemistry. Dalton Transactions, 2017, 46, 12544-12557.	3.3	8
97	Triphenylphosphaalkenes in Chemical Equilibria. European Journal of Inorganic Chemistry, 2019, 2019, 1562-1566.	2.0	8
98	Asymmetric Cyclometalated Ru^{II} Polypyridyl-Type Complexes with Ï€-Extended Carbanionic Donor Sets. Inorganic Chemistry, 2017, 56, 7720-7730.	4.0	7
99	Triarylalkenes from the site-selective reductive cross-coupling of benzophenones and aldehydes. Chemical Communications, 2019, 55, 6030-6033.	4.1	7
100	Selfâ€Recovery of Photochemical H 2 Evolution with a Molecular Diiron Catalyst Incorporated in a UiOâ€66 Metalâ€“Organic Framework. ChemPhotoChem, 2020, 4, 287-290.	3.0	7
101	Synthetic strategies to incorporate Ru-terpyridyl water oxidation catalysts into MOFs: direct synthesis <i>vs.</i> post-synthetic approach. Dalton Transactions, 2020, 49, 13753-13759.	3.3	7
102	Diagnosing surface <i>versus</i> bulk reactivity for molecular catalysis within metalâ€“organic frameworks using a quantitative kinetic model. Chemical Science, 2020, 11, 7468-7478.	7.4	7
103	The Fascinating World of Phosphanylphosphonates: From Acetylenic Phosphaalkenes to Reductive Aldehyde Couplings. Synlett, 2019, 30, 1867-1885.	1.8	6
104	Mechanistic insights on the non-innocent role of electron donors: reversible photocapture of CO₂ by Ru^{II}-polypyridyl complexes. Dalton Transactions, 2019, 48, 16894-16898.	3.3	6
105	Investigation of the heat distribution in dry friction systems during fade and recovery using fiber-optic sensing and infrared technology. Friction, 2022, 10, 422-435.	6.4	6
106	Hydrogen Bonded Phenolâ€Quinolines with Highly Controlled Protonâ€Transfer Coordinate. European Journal of Organic Chemistry, 2016, 2016, 3365-3372.	2.4	5
107	Photoinduced Fano Resonances between Quantum Confined Nanocrystals and Adsorbed Molecular Catalysts. Nano Letters, 2021, 21, 5813-5818.	9.1	4
108	Elemental Depth Profiling of Intact Metalâ€“Organic Framework Single Crystals by Scanning Nuclear Microprobe. Journal of the American Chemical Society, 2021, 143, 18626-18634.	13.7	4

#	ARTICLE	IF	CITATIONS
109	Hydroxyl-Decorated Diiron Complex as a [FeFe]-Hydrogenase Active Site Model Complex: Light-Driven Photocatalytic Activity and Heterogenization on Ethylene-Bridged Periodic Mesoporous Organosilica. Catalysts, 2022, 12, 254.	3.5	4
110	Alternative Synthesis of A C,C-Diacetylenic Phosphaalkene. Phosphorus, Sulfur and Silicon and the Related Elements, 2013, 188, 164-167.	1.6	3
111	The potential of ion beams for characterization of metalâ€“organic frameworks. Nuclear Instruments & Methods in Physics Research B, 2016, 371, 327-331.	1.4	3
112	Rapid Microwave-Assisted Self-Assembly of a Carboxylic-Acid-Terminated Dye on a TiO₂ Photoanode. ACS Applied Energy Materials, 2018, 1, 202-210.	5.1	3
113	Electrocatalytic water oxidation from a mixed linker MOF based on NU-1000 with an integrated ruthenium-based metallo-linker. Materials Advances, 2022, 3, 4227-4234.	5.4	3
114	Zâ€‘selective alkene formation from reductive aldehyde homoâ€•couplings. European Journal of Organic Chemistry, 0, , .	2.4	3
115	Reductive Diphosphene Formation From W(CO)5-Coordinated Dichlorophosphanes. Phosphorus, Sulfur and Silicon and the Related Elements, 2011, 186, 664-665.	1.6	2
116	Characterization of compositional modifications in metal-organic frameworks using carbon and alpha particle microbeams. Nuclear Instruments & Methods in Physics Research B, 2017, 404, 198-201.	1.4	2
117	New Talent: Europe, 2018. Dalton Transactions, 2018, 47, 10319-10319.	3.3	2
118	Versatile Approach to 3-Phosphahexatrienes Bearing Low Coordinated Phosphorus. Phosphorus, Sulfur and Silicon and the Related Elements, 2015, 190, 638-646.	1.6	1
119	E,Z-Selectivity in the reductive cross-coupling of two benzaldehydes to stilbenes under substrate control. Organic and Biomolecular Chemistry, 2020, 18, 6171-6179.	2.8	1
120	Uio-Type Metal-Organic Framework Thin Film with Redox-Active Linkers: Development and Charge Transport Behavior. ECS Meeting Abstracts, 2019, , .	0.0	0
121	Uio-Type Metal-Organic Framework Thin Film with Redox-Active Linkers: Development and Charge Transport Behavior. ECS Meeting Abstracts, 2019, , .	0.0	0