Stefan Bernhard

List of Publications by Year
in descending order

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114 papers	12,388 citations	36299 51 h-index	24254 110 g-index
122 all docs	122 docs citations	122 times ranked	9853 citing authors

#	Article	IF	Citations
1	Accelerated optimization of pure metal and ligand compositions for light-driven hydrogen production. Reaction Chemistry and Engineering, 2022, 7, 599-608.	3.7	6
2	Ligand Enhanced Activity of In Situ Formed Nanoparticles for Photocatalytic Hydrogen Evolution. ChemCatChem, 2022, 14, .	3.7	6
3	Understanding Ir(III) Photocatalyst Structureâ€“Activity Relationships: A Highly Parallelized Study of Light-Driven Metal Reduction Processes. Journal of the American Chemical Society, 2022, 144, 1431-1444.	13.7	18
4	Reinterpreting the Fate of Iridium(III) Photocatalystsâ”€Screening a Combinatorial Library to Explore Light-Driven Side-Reactions. Journal of the American Chemical Society, 2022, 144, 11189-11202.	13.7	14
5	Nickel(<scp>ii</scp>) complexes based on dithiolateâ€“polyamine binary ligand systems: crystal structures, hirshfeld surface analysis, theoretical study, and catalytic activity study on photocatalytic hydrogen generation. Dalton Transactions, 2021, 50, 5632-5643.	3.3	13
6	Exploring Multidimensional Chemical Spaces: Instrumentation and Chemical Systems for the Parallelization of Hydrogen Evolving Photocatalytic Reactions. Energy & Fuels, 2021, 35, 18957-18981.	5.1	9
7	High-Throughput Screening and Automated Data-Driven Analysis of the Triplet Photophysical Properties of Structurally Diverse, Heteroleptic Iridium(III) Complexes. Journal of the American Chemical Society, 2021, 143, 1179-1194.	13.7	60
8	High-Throughput Screening of Earth-Abundant Water Reduction Catalysts toward Photocatalytic Hydrogen Evolution. Inorganic Chemistry, 2021, 60, 774-781.	4.0	22
9	Bright Single-Layer Perovskite Hostâ€“Ionic Guest Light-Emitting Electrochemical Cells. Chemistry of Materials, 2021, 33, 1201-1212.	6.7	15
10	Iron in a Cage: Fixation of a Fe(II)tpy₂ Complex by Fourfold Interlinking. Angewandte Chemie - International Edition, 2020, 59, 15947-15952.	13.8	16
11	High-throughput Synthesis and Screening of Iridium(III) Photocatalysts for the Fast and Chemoselective Dehalogenation of Aryl Bromides. ACS Catalysis, 2020, 10, 6977-6987.	11.2	28
12	Iron in a Cage: Fixation of a Fe(II)tpy 2 Complex by Fourfold Interlinking. Angewandte Chemie, 2020, 132, 16081-16086.	2.0	4
13	Parallelized Screening of Characterized and DFT-Modeled Bimetallic Colloidal Cocatalysts for Photocatalytic Hydrogen Evolution. ACS Catalysis, 2020, 10, 4244-4252.	11.2	41
14	High-throughput measurement of the influence of pH on hydrogen production from BaTiO3/TiO2 core/shell photocatalysts. Applied Catalysis B: Environmental, 2020, 269, 118750.	20.2	21
15	Relevance of Chemical vs. Electrochemical Oxidation of Tunable Carbene Iridium Complexes for Catalytic Water Oxidation. European Journal of Inorganic Chemistry, 2020, 2020, 801-812.	2.0	16
16	Photostable Helical Polyfurans. Journal of the American Chemical Society, 2019, 141, 8858-8867.	13.7	38
17	Optimization of Synthetically Versatile Pyridylidene Amide Ligands for Efficient Iridiumâ€Catalyzed Water Oxidation. Chemistry - A European Journal, 2018, 24, 6386-6398.	3.3	29
18	Judicious Design of Cationic, Cyclometalated Ir(III) Complexes for Photochemical Energy Conversion and Optoelectronics. Accounts of Chemical Research, 2018, 51, 352-364.	15.6	151

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19	Influence of Atomic-Level Morphology on Catalysis: The Case of Sphere and Rod-Like Gold Nanoclusters for CO₂ Electroreduction. ACS Catalysis, 2018, 8, 4996-5001.	11.2	142
20	Chiral macrocyclic terpyridine complexes. Chemical Science, 2018, 9, 3837-3843.	7.4	17
21	A mesoionic nitrogen-donor ligand: structure, iridium coordination, and catalytic effects. Dalton Transactions, 2018, 47, 659-662.	3.3	25
22	Common Carbons as Waterâ€Reducing Catalysts in Photoâ€Driven Hydrogen Evolution with Nitrogenâ€Dependent Activity. ChemNanoMat, 2018, 4, 1039-1042.	2.8	1
23	Light-Driven Hydrogen Generation from Microemulsions Using Metallosurfactant Catalysts and Oxalic Acid. Inorganic Chemistry, 2017, 56, 10162-10171.	4.0	36
24	Rapid Analysis of Tetrakis(dialkylamino)phosphonium Stability in Alkaline Media. Organometallics, 2017, 36, 4038-4046.	2.3	30
25	Tuning Iridium Photocatalysts and Light Irradiation for Enhanced CO₂ Reduction. ACS Catalysis, 2017, 7, 154-160.	11.2	73
26	Synthetically tunable iridium(III) bis-pyridine-2-sulfonamide complexes as efficient and durable water oxidation catalysts. Catalysis Today, 2017, 290, 19-27.	4.4	11
27	Highly Fluorinated Ir(III)â€“2,2â€²:6â€²,2â€³-Terpyridineâ€“Phenylpyridineâ€“X Complexes via Selective Câ€“F Activation: Robust Photocatalysts for Solar Fuel Generation and Photoredox Catalysis. Journal of the American Chemical Society, 2016, 138, 9460-9472.	13.7	58
28	Frontispiece: Donorâ€Flexible Nitrogen Ligands for Efficient Iridiumâ€Catalyzed Water Oxidation Catalysis. Chemistry - A European Journal, 2016, 22, .	3.3	0
29	Cyano-decorated ligands: a powerful alternative to fluorination for tuning the photochemical properties of cyclometalated Ir(<scp>iii</scp>) complexes. Dalton Transactions, 2016, 45, 10411-10419.	3.3	13
30	Donorâ€Flexible Nitrogen Ligands for Efficient Iridiumâ€Catalyzed Water Oxidation Catalysis. Chemistry - A European Journal, 2016, 22, 6740-6745.	3.3	49
31	Iridium(III) Bis-Pyridine-2-Sulfonamide Complexes as Efficient and Durable Catalysts for Homogeneous Water Oxidation. Inorganic Chemistry, 2016, 55, 518-526.	4.0	39
32	Electronâ€Poor Thiophene 1,1â€Dioxides: Synthesis, Characterization, and Application as Electron Relays in Photocatalytic Hydrogen Generation. Chemistry - A European Journal, 2015, 21, 11517-11524.	3.3	4
33	Mechanistic Insight into the Dehydro-Dielsâ€“Alder Reaction of Styreneâ€“Ynes. Journal of Organic Chemistry, 2015, 80, 11686-11698.	3.2	47
34	Helical mesobenzanthrones: a class of highly luminescent helicenes. Tetrahedron, 2015, 71, 1694-1699.	1.9	9
35	Iridium Complexes Containing Mesoionic C Donors: Selective C(sp³)ïŁ¿H versus C(sp²)ïŁ¿H Bond Activation, Reactivity Towards Acids and Bases, and Catalytic Oxidation of Silanes and Water. Chemistry - A European Journal, 2014, 20, 15775-15784.	3.3	47
36	New Ir(III) 4,4â€²-dicyano-2,2â€²-bipyridine photosensitizers for solar fuel generation. Polyhedron, 2014, 82, 104-108.	2.2	15

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37	Tuning Thiophene with Phosphorus: Synthesis and Electronic Properties of Benzobisthiaphospholes. Chemistry - A European Journal, 2014, 20, 7746-7751.	3.3	48
38	[Ir(N^N^N)(C^N)L]⁺: A New Family of Luminophores Combining Tunability and Enhanced Photostability. Inorganic Chemistry, 2014, 53, 1487-1499.	4.0	59
39	Carbene iridium complexes for efficient water oxidation: scope and mechanistic insights. Energy and Environmental Science, 2014, 7, 2316-2328.	30.8	102
40	Organocatalytic photoreduction of Zn(ii) to zinc metal. Chemical Communications, 2014, 50, 5196.	4.1	9
41	How are Radicals (Re)Generated in Photochemical ATRP?. Journal of the American Chemical Society, 2014, 136, 13303-13312.	13.7	263
42	Visibleâ€Lightâ€Driven Alcohol Dehydrogenation with a Rhodium Catalyst. ChemCatChem, 2014, 6, 3018-3026.	3.7	13
43	Bimetallic Iridiumâ€“Carbene Complexes with Mesoionic Triazolylidene Ligands for Water Oxidation Catalysis. European Journal of Inorganic Chemistry, 2014, 2014, 708-714.	2.0	47
44	Photocatalytic Hydrogen Generation System Using a Nickel-Thiolate Hexameric Cluster. Inorganic Chemistry, 2013, 52, 9094-9101.	4.0	89
45	Tracking of Tuning Effects in Bis-Cyclometalated Iridium Complexes: A Combined Time Resolved Infrared Spectroscopy, Electrochemical, and Computational Study. Inorganic Chemistry, 2013, 52, 8795-8804.	4.0	30
46	Synthesis of Thiophene 1,1-Dioxides and Tuning Their Optoelectronic Properties. Organic Letters, 2013, 15, 5230-5233.	4.6	31
47	Photon-Driven Reduction of Zn²⁺ to Zn Metal. Inorganic Chemistry, 2013, 52, 5794-5800.	4.0	33
48	Synthetic Tuning of Electronic and Photophysical Properties of 2-Aryl-1,3-Benzothiaphospholes. Journal of Organic Chemistry, 2013, 78, 7462-7469.	3.2	29
49	Photolytic water oxidation catalyzed by a molecular carbene iridium complex. Dalton Transactions, 2012, 41, 13074.	3.3	94
50	Cyclometalated platinum(ii) diimine complexes: synthetically tuning the photophysical and electrochemical properties. Dalton Transactions, 2012, 41, 8077.	3.3	26
51	Visible Light and Sunlight Photoinduced ATRP with ppm of Cu Catalyst. ACS Macro Letters, 2012, 1, 1219-1223.	4.8	521
52	Axially Chiral Bichromophoric Fluorescent Dyes. Journal of Organic Chemistry, 2011, 76, 990-992.	3.2	34
53	Orchestrated Photocatalytic Water Reduction Using Surface-Adsorbing Iridium Photosensitizers. Journal of the American Chemical Society, 2011, 133, 11819-11821.	13.7	170
54	Ambient laser direct-write printing of a patterned organo-metallic electroluminescent device. Organic Electronics, 2011, 12, 1152-1158.	2.6	38

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55	Solar fuels: thermodynamics, candidates, tactics, and figures of merit. Dalton Transactions, 2010, 39, 10021.	3.3	156
56	Water Oxidation Catalyzed by Strong Carbeneâ€Type Donorâ€Ligand Complexes of Iridium. Angewandte Chemie - International Edition, 2010, 49, 9765-9768.	13.8	342
57	Synthesis and Characterization of Luminescent Bis-Cyclometalated Platinum^{IV} Complexes. Inorganic Chemistry, 2010, 49, 11297-11308.	4.0	53
58	Fast Water Oxidation Using Iron. Journal of the American Chemical Society, 2010, 132, 10990-10991.	13.7	578
59	Robust photocatalytic water reduction with cyclometalated Ir(iii) 4-vinyl-2,2â€²-bipyridine complexes. Chemical Communications, 2010, 46, 7551.	4.1	89
60	Laser direct write printing of sensitive and robust light emitting organic molecules. Applied Physics Letters, 2009, 94, 103306.	3.3	63
61	Degradation of Ir(ppy)2(dtb-bpy)PF6 iTMC OLEDs. Materials Research Society Symposia Proceedings, 2009, 1154, 1.	0.1	1
62	The Transformation and Storage of Solar Energy: Progress Towards Visible-Light Induced Water Splitting. Chimia, 2009, 63, 709-713.	0.6	34
63	Altering the Thermodynamics of Phase Separation in Inverted Bulkâ€Heterojunction Organic Solar Cells. Advanced Materials, 2009, 21, 3110-3115.	21.0	75
64	Progress towards solar-powered homogeneous water photolysis. Journal of Materials Chemistry, 2009, 19, 3328.	6.7	143
65	Cobaltocene-Doped Viologen as Functional Components in Organic Electronics. Chemistry of Materials, 2009, 21, 4583-4588.	6.7	45
66	Photon-Driven Catalytic Proton Reduction with a Robust Homoleptic Iridium(III) 6-Phenyl-2,2â€²-bipyridine Complex ([Ir(C[/]N[/]N)₂]⁺). Inorganic Chemistry, 2009, 48, 10507-10511.	4.0	88
67	Structureâ^'Activity Correlations Among Iridium(III) Photosensitizers in a Robust Water-Reducing System. Inorganic Chemistry, 2009, 48, 10498-10506.	4.0	157
68	Homogeneous Catalytic System for Photoinduced Hydrogen Production Utilizing Iridium and Rhodium Complexes. Inorganic Chemistry, 2008, 47, 10378-10388.	4.0	272
69	Polyoxometalate Embedding of a Tetraruthenium(IV)-oxo-core by Template-Directed Metalation of [Î³-SiW₁₀O₃₆]^{8â^'}: A Totally Inorganic Oxygen-Evolving Catalyst. Journal of the American Chemical Society, 2008, 130, 5006-5007.	13.7	571
70	Cyclometalated Iridium(III) Aquo Complexes:â€‰Efficient and Tunable Catalysts for the Homogeneous Oxidation of Water. Journal of the American Chemical Society, 2008, 130, 210-217.	13.7	588
71	Determination of Absolute Configuration of Chiral Hemicage Metal Complexes Using Time-Dependent Density Functional Theory. Inorganic Chemistry, 2008, 47, 974-979.	4.0	30
72	Configurationally Stable Longitudinally Twisted Polycyclic Aromatic Compounds. Journal of the American Chemical Society, 2008, 130, 16435-16441.	13.7	57

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73	Synthesis, Separation, and Circularly Polarized Luminescence Studies of Enantiomers of Iridium(III) Luminophores. Inorganic Chemistry, 2008, 47, 2039-2048.	4.0	131
74	Improved Turn-On Times of Light-Emitting Electrochemical Cells. Chemistry of Materials, 2008, 20, 388-396.	6.7	110
75	Degradation in iTMC OLEDs. Materials Research Society Symposia Proceedings, 2007, 1029, 1.	0.1	0
76	Synthesis and Characterization of Hemicage 8-Hydroxyquinoline Chelates with Enhanced Electrochemical and Photophysical Properties. Inorganic Chemistry, 2007, 46, 5700-5706.	4.0	37
77	Electroluminescent devices from ionic transition metal complexes. Journal of Materials Chemistry, 2007, 17, 2976-2988.	6.7	338
78	Controlling the Helicity of 2,2â€˜-Bipyridyl Ruthenium(II) and Zinc(II) Hemicage Complexes. Journal of the American Chemical Society, 2007, 129, 210-217.	13.7	92
79	Visible Light Induced Catalytic Water Reduction without an Electron Relay. Chemistry - A European Journal, 2007, 13, 8726-8732.	3.3	204
80	Europium-doped yttrium silicate nanophosphors prepared by flame synthesis. Materials Research Bulletin, 2007, 42, 1440-1449.	5.2	48
81	Synthesis, Structure, and Resolution of Exceptionally Twisted Pentacenes. Journal of the American Chemical Society, 2006, 128, 17043-17050.	13.7	67
82	Synthetically Tailored Excited States: Phosphorescent, Cyclometalated Iridium(III) Complexes and Their Applications. Chemistry - A European Journal, 2006, 12, 7970-7977.	3.3	714
83	Direct resolution of chiral â€˜pinenoâ€™ fused terpyridyl ligands on amylose based chiral stationary phase using long chain alcohol modifiers. Analytica Chimica Acta, 2005, 534, 193-198.	5.4	7
84	Flame Synthesis of Y2O3:Eu Nanophosphors Using Ethanol as Precursor Solvents. Journal of Materials Research, 2005, 20, 2960-2968.	2.6	79
85	Improved Turn-on Times of Iridium Electroluminescent Devices by Use of Ionic Liquids. Chemistry of Materials, 2005, 17, 3187-3190.	6.7	202
86	Green electroluminescence from an ionic iridium complex. Applied Physics Letters, 2005, 86, 173506.	3.3	127
87	Single-Layer Electroluminescent Devices and Photoinduced Hydrogen Production from an Ionic Iridium(III) Complex. Chemistry of Materials, 2005, 17, 5712-5719.	6.7	829
88	Discovery and High-Throughput Screening of Heteroleptic Iridium Complexes for Photoinduced Hydrogen Production. Journal of the American Chemical Society, 2005, 127, 7502-7510.	13.7	513
89	Synthesis and Characterization of Highly Conjugated, Chiral Bridging Ligands. Journal of Organic Chemistry, 2004, 69, 8910-8915.	3.2	16
90	A Combined Computational and Experimental Study of Polynuclear Ruâ^'TPPZ Complexes:Â Insight into the Electronic and Optical Properties of Coordination Polymers. Journal of the American Chemical Society, 2004, 126, 9715-9723.	13.7	78

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91	Efficient Yellow Electroluminescence from a Single Layer of a Cyclometalated Iridium Complex. Journal of the American Chemical Society, 2004, 126, 2763-2767.	13.7	654
92	Accelerated Luminophore Discovery through Combinatorial Synthesis. Journal of the American Chemical Society, 2004, 126, 14129-14135.	13.7	495
93	Electroluminescence in Ruthenium(II) Dendrimersâ€. Journal of Physical Chemistry A, 2003, 107, 8130-8133.	2.5	57
94	Iron(II) and Copper(I) Coordination Polymers:â€‰ Electrochromic Materials with and without Chiroptical Properties. Inorganic Chemistry, 2003, 42, 4389-4393.	4.0	77
95	Photophysics and Redox Behavior of Chiral Transition Metal Polymers. Inorganic Chemistry, 2003, 42, 1448-1455.	4.0	42
96	Solid-state electroluminescent devices based on transition metal complexes. Chemical Communications, 2003, , 2392-2399.	4.1	324
97	Electroluminescence in Ruthenium(II) Complexes. Journal of the American Chemical Society, 2002, 124, 13624-13628.	13.7	181
98	Study of Specific Binding of Maltose Binding Protein to Pyrrole-Derived Bipyridinium Film by Quartz Crystal Microbalance. Langmuir, 2002, 18, 4892-4897.	3.5	7
99	Redox Induced Reversible Structural Transformations of Dimeric and Polymeric Phenanthroline-Based Copper Chelates. Inorganic Chemistry, 2002, 41, 765-772.	4.0	18
100	Enantiomerically Pure Chiral Coordination Polymers:Â Synthesis, Spectroscopy, and Electrochemistry in Solution and on Surfaces. Journal of the American Chemical Society, 2001, 123, 10265-10271.	13.7	94
101	Redox Active Ordered Arrays via Metal Initiated Self-Assembly of Terpyridine Based Ligands. Journal of Physical Chemistry B, 2001, 105, 8746-8754.	2.6	48
102	Time-Resolved IR Studies of [Re(LL)(CO)4]+. Inorganic Chemistry, 2000, 39, 3107-3110.	4.0	14
103	Time-Resolved Infrared Spectroscopic Study of Reactive Acyl Intermediates Relevant to Cobalt-Catalyzed Carbonylations1. Inorganic Chemistry, 2000, 39, 3098-3106.	4.0	28
104	Molecular architecture in the field of photonic devices. Coordination Chemistry Reviews, 1999, 190-192, 155-169.	18.8	88
105	Ordered Arrays Generated via Metal-Initiated Self-Assembly of Terpyridine Containing Dendrimers and Bridging Ligands. Langmuir, 1999, 15, 7351-7354.	3.5	64
106	Interpretation of the Time-Resolved Resonance Raman Spectrum of [Ru(phen)3]2+*. Inorganic Chemistry, 1998, 37, 2585-2587.	4.0	29
107	Flash Photolysis Studies of the Ruthenium(II) Porphyrins Ru(P)(NO)(ONO). Multiple Pathways Involving Reactions of Intermediates with Nitric Oxide1. Journal of the American Chemical Society, 1998, 120, 11674-11683.	13.7	92
108	Mid-Infrared Spectrum of [Ru(phen)3]2+*. Inorganic Chemistry, 1998, 37, 3505-3508.	4.0	26

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109	Time-Resolved Infrared Spectral Studies of Photochemically Induced Oxidative Addition of Benzene totrans-RhCl(CO)(PMe3)2. Organometallics, 1997, 16, 5592-5594.	2.3	32
110	Synthesis and photophysical properties of chiral, binuclear metal complexes. Coordination Chemistry Reviews, 1997, 159, 1-8.	18.8	44
111	Synthesis of mono- and dialkylsubstituted 1,10-phenanthrolines. Tetrahedron, 1996, 52, 2937-2944.	1.9	30
112	Rigid Rodlike Dinuclear Ru/Os Complexes of a Novel Bridging Ligand. Intercomponent Energy and Electron-Transfer Processes. The Journal of Physical Chemistry, 1996, 100, 16786-16788.	2.9	67
113	Synthesis of New Rigid, Bridging Ligands for the Study of Energy and Electron-Transfer Reactions. Synthesis, 1996, 1996, 192-194.	2.3	24
114	Photoinduced energyâ€•and electronâ€transfer processes in dinuclear ruthenium(II) and/or osmium(II) complexes connected by a linear rigid bisâ€chelating bridge. Recueil Des Travaux Chimiques Des Pays-Bas, 1995, 114, 534-541.	0.0	50