Charles Machan

List of Publications by Year
in descending order

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58 papers	2,630 citations	172457 29 h-index	189892 50 g-index
83 all docs	83 docs citations	83 times ranked	2956 citing authors

#	Article	IF	Citations
1	Mediated Innerâ€Sphere Electron Transfer Induces Homogeneous Reduction of CO₂ via Throughâ€Space Electronic Conjugation**. Angewandte Chemie, 2022, 134, .	2.0	4
2	Homogeneous Catalytic Reduction of O₂ to H₂O by a Terpyridine-Based FeN₃O Complex. Inorganic Chemistry, 2022, 61, 8387-8392.	4.0	6
3	Berichtigung: Mediated Innerâ€Sphere Electron Transfer Induces Homogeneous Reduction of CO₂ via Throughâ€Space Electronic Conjugation. Angewandte Chemie, 2022, 134, .	2.0	0
4	Reduction of dioxygen to water by a Co(N₂O₂) complex with a 2,2â€²-bipyridine backbone. Chemical Communications, 2021, 57, 516-519.	4.1	16
5	Non-covalent assembly of proton donors and <i>p-</i>benzoquinone anions for co-electrocatalytic reduction of dioxygen. Chemical Science, 2021, 12, 9733-9741.	7.4	17
6	Introduction to the Organometallic Chemistry of Carbon Dioxide. , 2021, , .		0
7	Soluble, crystalline, and thermally stable alkali CO₂^{âˆ’} and carbonite (CO₂^{2âˆ’}) clusters supported by cyclic(alkyl)(amino) carbenes. Chemical Science, 2021, 12, 3544-3550.	7.4	12
8	DFT Study on the Electrocatalytic Reduction of CO₂ to CO by a Molecular Chromium Complex. Inorganic Chemistry, 2021, 60, 3635-3650.	4.0	18
9	Electrocatalytic Water Oxidation by a Trinuclear Copper(II) Complex. ACS Catalysis, 2021, 11, 7223-7240.	11.2	35
10	Pendent Relay Enhances H₂O₂Selectivity during Dioxygen Reduction Mediated by Bipyridine-Based Coâ€“N₂O₂Complexes. Journal of the American Chemical Society, 2021, 143, 13065-13073.	13.7	25
11	Bioinspired mononuclear Mn complexes for O₂ activation and biologically relevant reactions. Dalton Transactions, 2021, 50, 16871-16886.	3.3	6
12	Catalytic Reduction of Dioxygen to Water by a Bioinspired Non-Heme Iron Complex via a 2+2 Mechanism. Journal of the American Chemical Society, 2021, 143, 16411-16418.	13.7	15
13	Mediated Innerâ€Sphere Electron Transfer Induces Homogeneous Reduction of CO2 via Throughâ€Space Electronic Conjugation. Angewandte Chemie - International Edition, 2021, , .	13.8	16
14	Highly Efficient Electrocatalytic Reduction of CO₂ to CO by a Molecular Chromium Complex. ACS Catalysis, 2020, 10, 1146-1151.	11.2	48
15	Mechanistic insight into initiation and regioselectivity in the copolymerization of epoxides and anhydrides by Al complexes. Chemical Communications, 2020, 56, 14027-14030.	4.1	7
16	Controlling Polymorphism and Orientation of NU-901/NU-1000 Metalâ€“Organic Framework Thin Films. Chemistry of Materials, 2020, 32, 10556-10565.	6.7	23
17	Advances in the Molecular Catalysis of Dioxygen Reduction. ACS Catalysis, 2020, 10, 2640-2655.	11.2	76
18	Editorial: Molecular Catalysts for CO2 Fixation/Reduction. Frontiers in Chemistry, 2020, 8, 59.	3.6	8

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19	Electrochemical CO₂ Reduction in a Continuous Non-Aqueous Flow Cell with [Ni(cyclam)]²⁺. Inorganic Chemistry, 2020, 59, 1883-1892.	4.0	26
20	Electrocatalytic CO₂ Reduction to Formate with Molecular Fe(III) Complexes Containing Pendent Proton Relays. Inorganic Chemistry, 2020, 59, 5854-5864.	4.0	37
21	Catalytic Reduction of O2 to H2O2 via a Mn Complex. Trends in Chemistry, 2019, 1, 794-795.	8.5	1
22	Dioxygen Reduction to Hydrogen Peroxide by a Molecular Mn Complex: Mechanistic Divergence between Homogeneous and Heterogeneous Reductants. Journal of the American Chemical Society, 2019, 141, 4379-4387.	13.7	51
23	Secondary-Sphere Effects in Molecular Electrocatalytic CO2 Reduction. Frontiers in Chemistry, 2019, 7, 397.	3.6	114
24	Electrocatalytic reduction of dioxygen by Mn(iii) meso-tetra(N-methylpyridinium-4-yl)porphyrin in universal buffer. Dalton Transactions, 2019, 48, 8633-8641.	3.3	10
25	Metalâ€“Organic Frameworks as Porous Templates for Enhanced Cobalt Oxide Electrocatalyst Performance. ACS Applied Energy Materials, 2019, 2, 3306-3313.	5.1	7
26	Recent advances in spectroelectrochemistry related to molecular catalytic processes. Current Opinion in Electrochemistry, 2019, 15, 42-49.	4.8	26
27	A look at periodic trends in d-block molecular electrocatalysts for CO₂ reduction. Dalton Transactions, 2019, 48, 9454-9468.	3.3	58
28	Metalâ€Free Electrochemical Reduction of Carbon Dioxide Mediated by Cyclic(Alkyl)(Amino) Carbenes. Chemistry - A European Journal, 2019, 25, 6098-6101.	3.3	16
29	Electrochemical reduction of carbon dioxide with a molecular polypyridyl nickel complex. Sustainable Energy and Fuels, 2018, 2, 1269-1277.	4.9	19
30	Electrocatalytic Reduction of CO₂ to Formate by an Iron Schiff Base Complex. Inorganic Chemistry, 2018, 57, 2111-2121.	4.0	97
31	Reversible modulation of the redox characteristics of acid-sensitive molybdenum and tungsten scorpionate complexes. Dalton Transactions, 2018, 47, 6323-6332.	3.3	10
32	Electrocatalytic Reduction of Dioxygen to Hydrogen Peroxide by a Molecular Manganese Complex with a Bipyridine-Containing Schiff Base Ligand. Journal of the American Chemical Society, 2018, 140, 3232-3241.	13.7	56
33	Nitric oxide activation facilitated by cooperative multimetallic electron transfer within an iron-functionalized polyoxovanadateâ€“alkoxide cluster. Chemical Science, 2018, 9, 6379-6389.	7.4	20
34	Concerted One-Electron Two-Proton Transfer Processes in Models Inspired by the Tyr-His Couple of Photosystem II. ACS Central Science, 2017, 3, 372-380.	11.3	80
35	Charged Macromolecular Rhenium Bipyridine Catalysts with Tunable CO 2 Reduction Potentials. Chemistry - A European Journal, 2017, 23, 8619-8622.	3.3	30
36	Molecular catalysts for artificial photosynthesis: general discussion. Faraday Discussions, 2017, 198, 353-395.	3.2	6

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37	Bio-inspired CO₂reduction by a rhenium tricarbonyl bipyridine-based catalyst appended to amino acids and peptidic platforms: incorporating proton relays and hydrogen-bonding functional groups. Faraday Discussions, 2017, 198, 279-300.	3.2	42
38	Interrogating heterobimetallic co-catalytic responses for the electrocatalytic reduction of CO2 using supramolecular assembly. Dalton Transactions, 2016, 45, 15942-15950.	3.3	18
39	Rapid synthesis of redox-active dodecaborane B₁₂(OR)₁₂clusters under ambient conditions. Inorganic Chemistry Frontiers, 2016, 3, 711-717.	6.0	44
40	Photocatalytic Reduction of Carbon Dioxide to CO and HCO₂H Using <i>fac</i>-Mn(CN)(bpy)(CO)₃. Inorganic Chemistry, 2016, 55, 3192-3198.	4.0	100
41	Electrocatalytic reduction of carbon dioxide with Mn(terpyridine) carbonyl complexes. Dalton Transactions, 2016, 45, 17179-17186.	3.3	40
42	Improving the Efficiency and Activity of Electrocatalysts for the Reduction of CO₂ through Supramolecular Assembly with Amino Acid-Modified Ligands. Journal of the American Chemical Society, 2016, 138, 8184-8193.	13.7	59
43	Re(I) NHC Complexes for Electrocatalytic Conversion of CO₂. Inorganic Chemistry, 2016, 55, 3136-3144.	4.0	77
44	Orientation of Cyano-Substituted Bipyridine Re(I) <i>fac</i>-Tricarbonyl Electrocatalysts Bound to Conducting Au Surfaces. Journal of Physical Chemistry C, 2016, 120, 1657-1665.	3.1	46
45	A Molecular Ruthenium Electrocatalyst for the Reduction of Carbon Dioxide to CO and Formate. Journal of the American Chemical Society, 2015, 137, 8564-8571.	13.7	129
46	Reductive Disproportionation of Carbon Dioxide by an Alkyl-Functionalized Pyridine Monoimine Re(I) <i>fac</i>-Tricarbonyl Electrocatalyst. Organometallics, 2015, 34, 4678-4683.	2.3	37
47	Electrocatalytic Reduction of Carbon Dioxide by Mn(CN)(2,2â€²-bipyridine)(CO)₃: CN Coordination Alters Mechanism. Inorganic Chemistry, 2015, 54, 8849-8856.	4.0	72
48	Synthesis, Spectroscopy, and Electrochemistry of (Î±-Diimine)M(CO)₃Br, M = Mn, Re, Complexes: Ligands Isoelectronic to Bipyridyl Show Differences in CO₂ Reduction. Organometallics, 2015, 34, 3-12.	2.3	72
49	Supramolecular Assembly Promotes the Electrocatalytic Reduction of Carbon Dioxide by Re(I) Bipyridine Catalysts at a Lower Overpotential. Journal of the American Chemical Society, 2014, 136, 14598-14607.	13.7	128
50	Developing a Mechanistic Understanding of Molecular Electrocatalysts for CO₂ Reduction using Infrared Spectroelectrochemistry. Organometallics, 2014, 33, 4550-4559.	2.3	186
51	Combined steric and electronic effects of positional substitution on dimethyl-bipyridine rhenium(I)tricarbonyl electrocatalysts for the reduction of CO 2. Inorganica Chimica Acta, 2014, 422, 109-113.	2.4	30
52	General Strategy for the Synthesis of Rigid Weak-Link Approach Platinum(II) Complexes: Tweezers, Triple-Layer Complexes, and Macrocycles. Inorganic Chemistry, 2013, 52, 5876-5888.	4.0	30
53	One-Pot Synthesis of an Fe(II) Bis-Terpyridine Complex with Allosterically Regulated Electronic Properties. Journal of the American Chemical Society, 2012, 134, 16921-16924.	13.7	39
54	Crystallographic Snapshots of the Bondâ€Breaking Isomerization Reactions Involving Nickel(II) Complexes with Hemilabile Ligands. Angewandte Chemie - International Edition, 2012, 51, 1469-1472.	13.8	10

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55	Chelating Effect as a Driving Force for the Selective Formation of Heteroligated Pt(II) Complexes with Bidentate Phosphino-Chalcoether Ligands. Inorganic Chemistry, 2011, 50, 1411-1419.	4.0	32
56	Plasticity of the Nickel(II) Coordination Environment in Complexes with Hemilabile Phosphino Thioether Ligands. Journal of the American Chemical Society, 2011, 133, 3023-3033.	13.7	14
57	A coordination chemistry dichotomy for icosahedral carborane-based ligands. Nature Chemistry, 2011, 3, 590-596.	13.6	294
58	Electronic Tuning of Nickelâ€Based Bis(dicarbollide) Redox Shuttles in Dyeâ€Sensitized Solar Cells. Angewandte Chemie - International Edition, 2010, 49, 5339-5343.	13.8	121