

# Alexander J M Miller

## List of Publications by Year in descending order

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69  
papers

6,312  
citations

126907

33  
h-index

88630

70  
g-index

72  
all docs

72  
docs citations

72  
times ranked

7704  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms of Electrochemical N <sub>2</sub> Splitting by a Molybdenum Pincer Complex. <i>Inorganic Chemistry</i> , 2022, 61, 2307-2318.	4.0	11
2	Catalytic Dehydrogenation of Alkanes by PCP-Pincer Iridium Complexes Using Proton and Electron Acceptors. <i>ACS Catalysis</i> , 2021, 11, 3009-3016.	11.2	8
3	Selecting Double Bond Positions with a Single Cation-Responsive Iridium Olefin Isomerization Catalyst. <i>Journal of the American Chemical Society</i> , 2021, 143, 2792-2800.	13.7	34
4	Photocatalytic Transfer Hydrogenation in Water: Insight into Mechanism and Catalyst Speciation. <i>Organometallics</i> , 2021, 40, 1482-1491.	2.3	6
5	Understanding Terminal versus Bridging End-on N <sub>2</sub> Coordination in Transition Metal Complexes. <i>Journal of the American Chemical Society</i> , 2021, 143, 9744-9757.	13.7	24
6	Stepwise Iodide-Free Methanol Carbonylation via Methyl Acetate Activation by Pincer Iridium Complexes. <i>Journal of the American Chemical Society</i> , 2021, 143, 12633-12643.	13.7	4
7	Determining the Overpotential of Electrochemical Fuel Synthesis Mediated by Molecular Catalysts: Recommended Practices, Standard Reduction Potentials, and Challenges. <i>ChemElectroChem</i> , 2021, 8, 4161-4180.	3.4	31
8	Temperature and Solvent Effects on H <sub>2</sub> Splitting and Hydricity: Ramifications on CO <sub>2</sub> Hydrogenation by a Rhenium Pincer Catalyst. <i>Journal of the American Chemical Society</i> , 2021, 143, 945-954.	13.7	13
9	An Iron Pyridyl-Carbene Electrocatalyst for Low Overpotential CO <sub>2</sub> Reduction to CO. <i>ACS Catalysis</i> , 2021, 11, 615-626.	11.2	38
10	Photochemical H <sub>2</sub> Evolution from Bis(diphosphine)nickel Hydrides Enables Low-Overpotential Electrocatalysis. <i>Journal of the American Chemical Society</i> , 2021, 143, 21388-21401.	13.7	10
11	An Iron Bis(carbene) Catalyst for Low Overpotential CO <sub>2</sub> Electroreduction to CO: Mechanistic Insights from Kinetic Zone Diagrams, Spectroscopy, and Theory. <i>ACS Catalysis</i> , 2021, 11, 15212-15222.	11.2	9
12	Identifying and Evading Olefin Isomerization Catalyst Deactivation Pathways Resulting from Ion-Tunable Hemilability. <i>ACS Catalysis</i> , 2020, 10, 13019-13030.	11.2	8
13	Decarbonylative ether dissection by iridium pincer complexes. <i>Chemical Science</i> , 2020, 11, 12130-12138.	7.4	8
14	H <sub>2</sub> Evolution at an Electrochemical Underpotential with an Iridium-Based Molecular Photoelectrocatalyst. <i>ACS Catalysis</i> , 2020, 10, 9006-9018.	11.2	10
15	Thermodynamic and kinetic hydricity of transition metal hydrides. <i>Chemical Society Reviews</i> , 2020, 49, 7929-7948.	38.1	52
16	Considering Electrocatalytic Ammonia Synthesis via Bimetallic Dinitrogen Cleavage. <i>ACS Catalysis</i> , 2020, 10, 10826-10846.	11.2	60
17	Oligomerization and polymerization of 5-ethylidene-2-norbornene by cationic palladium and nickel catalysts. <i>Polymer Chemistry</i> , 2020, 11, 2576-2584.	3.9	18
18	Mechanistic basis for tuning iridium hydride photochemistry from H <sub>2</sub> evolution to hydride transfer hydrodechlorination. <i>Chemical Science</i> , 2020, 11, 6442-6449.	7.4	14

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19	(Electro)chemical Splitting of Dinitrogen with a Rhenium Pincer Complex. <i>European Journal of Inorganic Chemistry</i> , 2020, 2020, 1402-1410.	2.0	37
20	Kinetics of the <i>Trans</i> Effect in Ruthenium Complexes Provide Insight into the Factors That Control Activity and Stability in CO <sub>2</sub> Electroreduction. <i>Journal of the American Chemical Society</i> , 2020, 142, 8980-8999.	13.7	40
21	Potential Economic Feasibility of Direct Electrochemical Nitrogen Reduction as a Route to Ammonia. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 8938-8948.	6.7	75
22	Electrochemical C-H bond activation <i>via</i> cationic iridium hydride pincer complexes. <i>Chemical Science</i> , 2019, 10, 9326-9330.	7.4	4
23	Thermodynamic Hydricity across Solvents: Subtle Electronic Effects and Striking Ligation Effects in Iridium Hydrides. <i>Organometallics</i> , 2019, 38, 3104-3110.	2.3	25
24	Organometallic Elaboration as a Strategy for Tuning the Supramolecular Characteristics of Aza-Crown Ethers. <i>Organometallics</i> , 2019, 38, 4392-4398.	2.3	6
25	Cation-controlled catalysis with crown ether-containing transition metal complexes. <i>Chemical Communications</i> , 2019, 55, 5047-5059.	4.1	78
26	The <i>Trans</i> Effect in Electrocatalytic CO <sub>2</sub> Reduction: Mechanistic Studies of Asymmetric Ruthenium Pyridyl-Carbene Catalysts. <i>Journal of the American Chemical Society</i> , 2019, 141, 6658-6671.	13.7	51
27	Stabilization of Ruthenium(II) Polypyridyl Chromophores on Mesoporous TiO <sub>2</sub> Electrodes: Surface Reductive Electropolymerization and Silane Chemistry. <i>ACS Central Science</i> , 2019, 5, 506-514.	11.3	15
28	Dinitrogen Reduction to Ammonium at Rhenium Utilizing Light and Proton-Coupled Electron Transfer. <i>Journal of the American Chemical Society</i> , 2019, 141, 20198-20208.	13.7	62
29	Stable Molecular Surface Modification of Nanostructured, Mesoporous Metal Oxide Photoanodes by Silane and Click Chemistry. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 4560-4567.	8.0	18
30	Simultaneous Electrosynthesis of Syngas and an Aldehyde from CO <sub>2</sub> and an Alcohol by Molecular Electrocatalysis. <i>ACS Applied Energy Materials</i> , 2019, 2, 97-101.	5.1	41
31	Synthesis and Characterization of Stable Gold(III) PNP Pincer Complexes. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 3113-3117.	2.0	7
32	Molecular Photoelectrocatalysts for Light-Driven Hydrogen Production. <i>ACS Energy Letters</i> , 2018, 3, 1128-1136.	17.4	34
33	Bathochromic Shifts in Rhenium Carbonyl Dyes Induced through Destabilization of Occupied Orbitals. <i>Inorganic Chemistry</i> , 2018, 57, 5389-5399.	4.0	42
34	A Ruthenium Hydrido Dinitrogen Core Conserved across Multielectron/Multiproton Changes to the Pincer Ligand Backbone. <i>Inorganic Chemistry</i> , 2018, 57, 1964-1975.	4.0	15
35	Excited-State Switching between Ligand-Centered and Charge Transfer Modulated by Metal-Carbon Bonds in Cyclopentadienyl Iridium Complexes. <i>Inorganic Chemistry</i> , 2018, 57, 15445-15461.	4.0	12
36	Let's Talk About Safety: Open Communication for Safer Laboratories. <i>Organometallics</i> , 2018, 37, 3225-3227.	2.3	17

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37	Mechanism of Chemical and Electrochemical N <sub>2</sub> Splitting by a Rhenium Pincer Complex. <i>Journal of the American Chemical Society</i> , 2018, 140, 7922-7935.	13.7	110
38	Salt-promoted catalytic methanol carbonylation using iridium pincer-crown ether complexes. <i>Catalysis Science and Technology</i> , 2018, 8, 3133-3143.	4.1	23
39	An Ion-Responsive Pincer-Crown Ether Catalyst System for Rapid and Switchable Olefin Isomerization. <i>Angewandte Chemie</i> , 2017, 129, 5590-5594.	2.0	9
40	An Ion-Responsive Pincer-Crown Ether Catalyst System for Rapid and Switchable Olefin Isomerization. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 5498-5502.	13.8	60
41	Photochemical Production of Ethane from an Iridium Methyl Complex. <i>Organometallics</i> , 2017, 36, 1906-1914.	2.3	12
42	Ammonia Synthesis from a Pincer Ruthenium Nitride via Metal-Ligand Cooperative Proton-Coupled Electron Transfer. <i>Journal of the American Chemical Society</i> , 2017, 139, 5305-5308.	13.7	40
43	Mapping the Binding Modes of Hemilabile Pincer-Crown Ether Ligands in Solution Using Diamagnetic Anisotropic Effects on NMR Chemical Shift. <i>Inorganic Chemistry</i> , 2017, 56, 11141-11150.	4.0	28
44	Thermodynamic Studies of Cation-Macrocycle Interactions in Nickel Pincer-Crown Ether Complexes Enable Switchable Ligation. <i>Organometallics</i> , 2017, 36, 3094-3103.	2.3	29
45	Controlling ligand binding for tunable and switchable catalysis: cation-modulated hemilability in pincer-crown ether ligands. <i>Dalton Transactions</i> , 2017, 46, 11987-12000.	3.3	52
46	Aqueous Hydricity from Calculations of Reduction Potential and Acidity in Water. <i>Journal of Physical Chemistry B</i> , 2016, 120, 12911-12919.	2.6	16
47	Modulating the Elementary Steps of Methanol Carbonylation by Bridging the Primary and Secondary Coordination Spheres. <i>Organometallics</i> , 2016, 35, 3074-3086.	2.3	36
48	Efficient Photochemical Dihydrogen Generation Initiated by a Bimetallic Self-Quenching Mechanism. <i>Journal of the American Chemical Society</i> , 2016, 138, 13509-13512.	13.7	40
49	Evaluating the Thermodynamics of Electrocatalytic N <sub>2</sub> Reduction in Acetonitrile. <i>ACS Energy Letters</i> , 2016, 1, 698-704.	17.4	115
50	Thermodynamic Hydricity of Transition Metal Hydrides. <i>Chemical Reviews</i> , 2016, 116, 8655-8692.	47.7	365
51	Solvent-Dependent Thermochemistry of an Iridium/Ruthenium H <sub>2</sub> Evolution Catalyst. <i>Inorganic Chemistry</i> , 2016, 55, 12042-12051.	4.0	18
52	Aqueous Hydricity of Late Metal Catalysts as a Continuum Tuned by Ligands and the Medium. <i>Journal of the American Chemical Society</i> , 2016, 138, 2252-2260.	13.7	76
53	Diverse Cation-Promoted Reactivity of Iridium Carbonyl Pincer-Crown Ether Complexes. <i>Organometallics</i> , 2016, 35, 306-316.	2.3	33
54	Connecting Neutral and Cationic Pathways in Nickel-Catalyzed Insertion of Benzaldehyde into a C-H Bond of Acetonitrile. <i>Organometallics</i> , 2015, 34, 4669-4677.	2.3	34

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55	Photochemical Formic Acid Dehydrogenation by Iridium Complexes: Understanding Mechanism and Overcoming Deactivation. <i>ACS Catalysis</i> , 2015, 5, 6320-6327.	11.2	48
56	Rapid water oxidation electrocatalysis by a ruthenium complex of the tripodal ligand tris(2-pyridyl)phosphine oxide. <i>Chemical Science</i> , 2015, 6, 2405-2410.	7.4	43
57	Molecular Photoelectrocatalysts for Visible Light-Driven Hydrogen Evolution from Neutral Water. <i>ACS Catalysis</i> , 2014, 4, 2727-2733.	11.2	56
58	Photoswitchable Hydride Transfer from Iridium to 1-Methylnicotinamide Rationalized by Thermochemical Cycles. <i>Journal of the American Chemical Society</i> , 2014, 136, 14718-14721.	13.7	70
59	Cation-Modulated Reactivity of Iridium Hydride Pincer-Crown Ether Complexes. <i>Journal of the American Chemical Society</i> , 2014, 136, 14519-14529.	13.7	90
60	Arene Activation at Iridium Facilitates C=O Bond Cleavage of Aryl Ethers. <i>Organometallics</i> , 2014, 33, 1245-1252.	2.3	19
61	Hydrogenation of Carboxylic Acids Catalyzed by Half-Sandwich Complexes of Iridium and Rhodium. <i>Journal of the American Chemical Society</i> , 2013, 135, 16022-16025.	13.7	111
62	Catalytic Disproportionation of Formic Acid to Generate Methanol. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 3981-3984.	13.8	95
63	Kinetic and structural studies, origins of selectivity, and interfacial charge transfer in the artificial photosynthesis of CO. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 15646-15650.	7.1	181
64	Using combinations of oxidants and bases as PCET reactants: thermochemical and practical considerations. <i>Energy and Environmental Science</i> , 2012, 5, 7771.	30.8	97
65	Synthesis and Characterization of Three-Coordinate Ni(III)-Imide Complexes. <i>Journal of the American Chemical Society</i> , 2011, 133, 13055-13063.	13.7	122
66	Trialkylborane-Assisted CO <sub>2</sub> Reduction by Late Transition Metal Hydrides. <i>Organometallics</i> , 2011, 30, 4308-4314.	2.3	73
67	NMR Chemical Shifts of Trace Impurities: Common Laboratory Solvents, Organics, and Gases in Deuterated Solvents Relevant to the Organometallic Chemist. <i>Organometallics</i> , 2010, 29, 2176-2179.	2.3	3,142
68	Long-Lived and Efficient Emission from Mononuclear Amidophosphine Complexes of Copper. <i>Inorganic Chemistry</i> , 2007, 46, 7244-7246.	4.0	102
69	Mechanistic comparisons on Ru and Fe carbene-supported complexes for electrocatalytic CO <sub>2</sub> reduction. , 0, , .		0