R Morris Bullock

List of Publications by Year
in descending order

207 papers	14,324 citations	15466 65 h-index	23472 111 g-index
239 all docs	239 docs citations	239 times ranked	9494 citing authors

#	Article	IF	Citations
1	Beyond fossil fuelâ€“driven nitrogen transformations. Science, 2018, 360, .	6.0	1,379
2	A Synthetic Nickel Electrocatalyst with a Turnover Frequency Above 100,000 s ^{â^’1} for H ₂ Production. Science, 2011, 333, 863-866.	6.0	1,070
3	Thermodynamic Hydricity of Transition Metal Hydrides. Chemical Reviews, 2016, 116, 8655-8692.	23.0	365
4	[Ni(P^{Ph}₂N^{C6H4X}₂)₂]²⁺ Complexes as Electrocatalysts for H₂ Production: Effect of Substituents, Acids, and Water on Catalytic Rates. Journal of the American Chemical Society, 2011, 133, 5861-5872.	6.6	357
5	Using natureâ€™s blueprint to expand catalysis with Earth-abundant metals. Science, 2020, 369, .	6.0	306
6	Catalytic Ionic Hydrogenations. Chemistry - A European Journal, 2004, 10, 2366-2374.	1.7	282
7	Abundant Metals Give Precious Hydrogenation Performance. Science, 2013, 342, 1054-1055.	6.0	268
8	Production of hydrogen by electrocatalysis: making the Hâ€“H bond by combining protons and hydrides. Chemical Communications, 2014, 50, 3125-3143.	2.2	244
9	An iron complex with pendent amines as a molecular electrocatalyst for oxidation of hydrogen. Nature Chemistry, 2013, 5, 228-233.	6.6	218
10	Molecular Electrocatalysts for the Oxidation of Hydrogen and the Production of Hydrogen â€“ The Role of Pendant Amines as Proton Relays. European Journal of Inorganic Chemistry, 2011, 2011, 1017-1027.	1.0	204
11	Heterobimetallic compounds linked by heterodifunctional ligands. Accounts of Chemical Research, 1987, 20, 167-173.	7.6	194
12	Toward Benchmarking in Catalysis Science: Best Practices, Challenges, and Opportunities. ACS Catalysis, 2016, 6, 2590-2602.	5.5	190
13	A recyclable catalyst that precipitates at the end of the reaction. Nature, 2003, 424, 530-532.	13.7	185
14	Hydrogen production using cobalt-based molecular catalysts containing a proton relay in the second coordination sphere. Energy and Environmental Science, 2008, 1, 167.	15.6	164
15	Mechanistic Insights into Catalytic H₂ Oxidation by Ni Complexes Containing a Diphosphine Ligand with a Positioned Amine Base. Journal of the American Chemical Society, 2009, 131, 5935-5945.	6.6	161
16	Direct Determination of Equilibrium Potentials for Hydrogen Oxidation/Production by Open Circuit Potential Measurements in Acetonitrile. Inorganic Chemistry, 2013, 52, 3823-3835.	1.9	160
17	Surface Immobilization of Molecular Electrocatalysts for Energy Conversion. Chemistry - A European Journal, 2017, 23, 7626-7641.	1.7	159
18	Moving Protons with Pendant Amines: Proton Mobility in a Nickel Catalyst for Oxidation of Hydrogen. Journal of the American Chemical Society, 2011, 133, 14301-14312.	6.6	151

#	Article	IF	Citations
19	Molecular Electrocatalysts for Oxidation of Hydrogen Using Earth-Abundant Metals: Shoving Protons Around with Proton Relays. Accounts of Chemical Research, 2015, 48, 2017-2026.	7.6	144
20	Studies of a Series of [Ni(P^R₂N^{Ph}₂)₂(CH₃CN)]²⁺ Complexes as Electrocatalysts for H₂ Production: Substituent Variation at the Phosphorus Atom of the P₂N₂ Ligand. Inorganic Chemistry, 2011, 50, 10908-10918.	1.9	141
21	High Catalytic Rates for Hydrogen Production Using Nickel Electrocatalysts with Seven-Membered Cyclic Diphosphine Ligands Containing One Pendant Amine. Journal of the American Chemical Society, 2013, 135, 6033-6046.	6.6	137
22	Metal-acetylide bonding in (.eta.5-C5H5)Fe(CO)2C.tplbond.CR compounds. Measures of metal-d.pi.-acetylide-.pi. interactions from photoelectron spectroscopy. Journal of the American Chemical Society, 1993, 115, 3276-3285.	6.6	129
23	Reversible Electrocatalytic Production and Oxidation of Hydrogen at Low Overpotentials by a Functional Hydrogenase Mimic. Angewandte Chemie - International Edition, 2012, 51, 3152-3155.	7.2	128
24	Proton Delivery and Removal in [Ni(P^R₂N^{R^{â€²}}₂)₂]²⁺ Hydrogen Production and Oxidation Catalysts. Journal of the American Chemical Society, 2012, 134, 19409-19424.	6.6	122
25	Homogeneous Catalysis with Inexpensive Metals:Â Ionic Hydrogenation of Ketones with Molybdenum and Tungsten Catalysts. Journal of the American Chemical Society, 2000, 122, 12594-12595.	6.6	121
26	Two Pathways for Electrocatalytic Oxidation of Hydrogen by a Nickel Bis(diphosphine) Complex with Pendant Amines in the Second Coordination Sphere. Journal of the American Chemical Society, 2013, 135, 9700-9712.	6.6	119
27	Ruthenium/zirconium complexes containing C2 bridges with bond orders of 3, 2, and 1. Synthesis and structures of Cp(PMe3)2RuCHnCHnZrClCp2 (n = 0, 1, 2). Journal of the American Chemical Society, 1991, 113, 8466-8477.	6.6	116
28	An Iron Catalyst for Ketone Hydrogenations under Mild Conditions. Angewandte Chemie - International Edition, 2007, 46, 7360-7363.	7.2	113
29	Hydrogen oxidation catalysis by a nickel diphosphine complex with pendant tert-butyl amines. Chemical Communications, 2010, 46, 8618.	2.2	107
30	Comparison of Cobalt and Nickel Complexes with Sterically Demanding Cyclic Diphosphine Ligands: Electrocatalytic H₂Production by [Co(P^{<i>t</i>}^{Bu}₂N^{Ph}₂)(CH₃CN)₃](BF<sub Organometallics, 2010, 29, 5390-5401.	1.1	105
31	Hydride Transfer Reactions of Transition Metal Hydrides:Â Kinetic Hydricity of Metal Carbonyl Hydrides. Journal of the American Chemical Society, 1998, 120, 13121-13137.	6.6	104
32	[Ni(P^{Ph}₂N^{Bn}₂)₂(CH₃CN)]²⁺ as an Electrocatalyst for H₂ Production: Dependence on Acid Strength and Isomer Distribution. ACS Catalysis, 2011, 1, 777-785.	5.5	104
33	Protonation of Metal Hydrides by Strong Acids. Formation of an Equilibrium Mixture of Dihydride and Dihydrogen Complexes from Protonation of Cp*Os(CO)2H. Structural Characterization of [CpW(CO)2(PMe3)(H)2]+OTfâˆ’. Organometallics, 1996, 15, 2504-2516.	1.1	103
34	Metal-Catalyzed Selective Deoxygenation of Diols to Alcohols. Angewandte Chemie - International Edition, 2001, 40, 3887-3890.	7.2	102
35	The Role of Pendant Amines in the Breaking and Forming of Molecular Hydrogen Catalyzed by Nickel Complexes. Chemistry - A European Journal, 2012, 18, 6493-6506.	1.7	102
36	Heterolytic Cleavage of Hydrogen by an Iron Hydrogenase Model: An Feâ€Hâ‹…â‹…â‹…Hâ€N Dihydrogen Bond Characterized by Neutron Diffraction. Angewandte Chemie - International Edition, 2014, 53, 5300-5304.	7.2	102

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37	Intramolecular hydrogen exchange among the coordinated methane fragments of Cp2W(H)CH3. Evidence for the formation of a .sigma. complex of methane prior to elimination. Journal of the American Chemical Society, 1989, 111, 3897-3908.	6.6	101
38	[Ni(P^{Me}₂N^{Ph}₂)₂](BF₄)₂ as an Electrocatalyst for H₂ Production. ACS Catalysis, 2012, 2, 720-727.	5.5	95
39	Rh(CAAC)-Catalyzed Arene Hydrogenation: Evidence for Nanocatalysis and Sterically Controlled Site-Selective Hydrogenation. ACS Catalysis, 2018, 8, 8441-8449.	5.5	94
40	Hydrogen atom transfer reactions of transition-metal hydrides. Kinetics and mechanism of the hydrogenation of .alpha.-cyclopropylstyrene by metal carbonyl hydrides. Journal of the American Chemical Society, 1990, 112, 6886-6898.	6.6	93
41	Synthesis, Characterization, and Reactivity of Fe Complexes Containing Cyclic Diazadiphosphine Ligands: The Role of the Pendant Base in Heterolytic Cleavage of H₂. Journal of the American Chemical Society, 2012, 134, 6257-6272.	6.6	91
42	Electrochemical Detection of Transient Cobalt Hydride Intermediates of Electrocatalytic Hydrogen Production. Journal of the American Chemical Society, 2016, 138, 8309-8318.	6.6	89
43	Rearrangement of a metal (Î·2-alkyne) complex to a metal vinylidene and subsequent reaction of the metal vinylidene to regenerate the alkyne. Journal of the Chemical Society Chemical Communications, 1989, , 165-167.	2.0	84
44	Ionic Hydrogenations of Hindered Olefins at Low Temperature. Hydride Transfer Reactions of Transition Metal Hydrides. Journal of the American Chemical Society, 1994, 116, 8602-8612.	6.6	83
45	Reduction of oxygen catalyzed by nickel diphosphine complexes with positioned pendant amines. Dalton Transactions, 2010, 39, 3001.	1.6	82
46	Thermochemical and Mechanistic Studies of Electrocatalytic Hydrogen Production by Cobalt Complexes Containing Pendant Amines. Inorganic Chemistry, 2013, 52, 14391-14403.	1.9	82
47	Et3NH+Co(CO)4-: hydrogen-bonded adduct or simple ion pair? Single-crystal neutron diffraction study at 15 K. Organometallics, 1992, 11, 2339-2341.	1.1	81
48	Production of H2 at fast rates using a nickel electrocatalyst in waterâ€“acetonitrile solutions. Chemical Communications, 2013, 49, 7767.	2.2	81
49	Dinitrogen Reduction by a Chromium(0) Complex Supported by a 16-Membered Phosphorus Macrocycle. Journal of the American Chemical Society, 2013, 135, 11493-11496.	6.6	81
50	Reversing the Tradeoff between Rate and Overpotential in Molecular Electrocatalysts for H₂Production. ACS Catalysis, 2018, 8, 3286-3296.	5.5	79
51	Acidic ionic liquid/water solution as both medium and proton source for electrocatalytic H ₂ evolution by [Ni(P ₂ N ₂) ₂] ²⁺ complexes. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15634-15639.	3.3	78
52	Catalytic Silylation of N2and Synthesis of NH3and N2H4by Net Hydrogen Atom Transfer Reactions Using a Chromium P4Macrocycle. Journal of the American Chemical Society, 2018, 140, 2528-2536.	6.6	78
53	Comprehensive Thermodynamics of Nickel Hydride Bis(Diphosphine) Complexes: A Predictive Model through Computations. Organometallics, 2011, 30, 6108-6118.	1.1	76
54	Catalytic Deoxygenation of 1,2â€Propanediol to Give <i>n</i>â€Propanol. Advanced Synthesis and Catalysis, 2009, 351, 789-800.	2.1	75

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55	Catalytic N₂ Reduction to Silylamines and Thermodynamics of N₂ Binding at Square Planar Fe. Journal of the American Chemical Society, 2017, 139, 9291-9301.	6.6	72
56	Isotope Effects on Hydride Transfer Reactions from Transition Metal Hydrides to Trityl Cation. An Inverse Isotope Effect for a Hydride Transfer. Journal of the American Chemical Society, 1999, 121, 3150-3155.	6.6	71
57	Hydrogen Production Using Nickel Electrocatalysts with Pendant Amines: Ligand Effects on Rates and Overpotentials. ACS Catalysis, 2013, 3, 2527-2535.	5.5	70
58	Oxidation of Ammonia with Molecular Complexes. Journal of the American Chemical Society, 2020, 142, 17845-17858.	6.6	70
59	Hydride Transfer from (Î·5-C5Me5)(CO)2MH (M = Fe, Ru, Os) to Trityl Cation:â€‰ Different Products from Different Metals and the Kinetics of Hydride Transfer. Organometallics, 2002, 21, 2325-2331.	1.1	68
60	Molybdenum Carbonyl Complexes in the Solvent-Free Catalytic Hydrogenation of Ketones. Organometallics, 2005, 24, 6220-6229.	1.1	68
61	Computing Free Energy Landscapes: Application to Ni-based Electrocatalysts with Pendant Amines for H₂ Production and Oxidation. ACS Catalysis, 2014, 4, 229-242.	5.5	68
62	Catalytic ionic hydrogenations of ketones using molybdenum and tungsten complexesBased on the presentation given at Dalton Discussion No. 4, 10â€"13th January 2002, Kloster Banz, Germany.. Dalton Transactions RSC, 2002, , 759-770.	2.3	67
63	Fast and efficient molecular electrocatalysts for H₂ production: Using hydrogenase enzymes as guides. MRS Bulletin, 2011, 36, 39-47.	1.7	67
64	Rapid, Reversible Heterolytic Cleavage of Bound H₂. Journal of the American Chemical Society, 2013, 135, 11736-11739.	6.6	67
65	Experimental and Computational Mechanistic Studies Guiding the Rational Design of Molecular Electrocatalysts for Production and Oxidation of Hydrogen. Inorganic Chemistry, 2016, 55, 445-460.	1.9	67
66	Stabilization of Nickel Complexes with Ni0Â·Â·Â·Hâ€"N Bonding Interactions Using Sterically Demanding Cyclic Diphosphine Ligands. Organometallics, 2012, 31, 144-156.	1.1	66
67	Cobalt Complexes Containing Pendant Amines in the Second Coordination Sphere as Electrocatalysts for H₂ Production. Organometallics, 2014, 33, 5820-5833.	1.1	66
68	Hydride Transfer by Hydrido Transition-Metal Complexes. Ionic Hydrogenation of Aldehydes and Ketones, and Structural Characterization of an Alcohol Complex. Angewandte Chemie International Edition in English, 1992, 31, 1233-1235.	4.4	65
69	Toward Molecular Catalysts by Computer. Accounts of Chemical Research, 2015, 48, 248-255.	7.6	65
70	Heterobimetallic compounds linked by heterodifunctional ligands: synthesis and x-ray crystal structure of (CO)4MnMo(CO)3(.eta.5-C5H4PPh2). Organometallics, 1982, 1, 1591-1596.	1.1	62
71	Synthesis and Electrochemical Studies of Cobalt(III) Monohydride Complexes Containing Pendant Amines. Inorganic Chemistry, 2013, 52, 9975-9988.	1.9	62
72	Experimental Charge Density and Neutron Structural Study ofcis-HMn(CO)4PPh3:Â Comprehensive Analysis of Chemical Bonding and Evidence for a Câˆ'HÂ·Â·Â·Hâˆ'Mn Hydrogen Bond. Inorganic Chemistry, 1998, 37, 6317-6328.	1.9	61

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73	Photogeneration of hydrogen from water by a robust dye-sensitized photocathode. Energy and Environmental Science, 2016, 9, 3693-3697.	15.6	61
74	A Tungsten Complex with a Bidentate, Hemilabile N-Heterocyclic Carbene Ligand, Facile Displacement of the Weakly Bound Wâˆ’(CC) Bond, and the Vulnerability of the NHC Ligand toward Catalyst Deactivation during Ketone Hydrogenation. Organometallics, 2007, 26, 5079-5090.	1.1	59
75	Hydrogen exchange between the methyl and hydride ligands of dicyclopentadienylhydridomethyltungsten prior to methane elimination. Journal of the American Chemical Society, 1985, 107, 727-729.	6.6	58
76	Complexes containing a C2 bridge between an electron-rich metal and an electron-deficient metal. An agostic interaction in a RuCH2CH2Zr moiety. Journal of the American Chemical Society, 1990, 112, 3244-3245.	6.6	57
77	Metal-Hydrogen Bond Cleavage Reactions of Transition Metal Hydrides: Hydrogen Atom, Hydride, and Proton Transfer Reactions. Comments on Inorganic Chemistry, 1991, 12, 1-33.	3.0	56
78	Layer-by-Layer Molecular Assemblies for Dye-Sensitized Photoelectrosynthesis Cells Prepared by Atomic Layer Deposition. Journal of the American Chemical Society, 2017, 139, 14518-14525.	6.6	55
79	Ammonia Oxidation by Abstraction of Three Hydrogen Atoms from a Moâ€“NH₃ Complex. Journal of the American Chemical Society, 2017, 139, 2916-2919.	6.6	54
80	Proton transfer from metal hydrides to metal alkynyl complexes. Remarkable carbon basicity of (C5H5)(PMe3)2RuC.tplbond.CCMe3. Journal of the American Chemical Society, 1987, 109, 8087-8089.	6.6	52
81	A rare terminal dinitrogen complex of chromium. Chemical Communications, 2011, 47, 12212.	2.2	52
82	Catalytic Ammonia Oxidation to Dinitrogen by Hydrogen Atom Abstraction. Angewandte Chemie - International Edition, 2019, 58, 11618-11624.	7.2	52
83	Electrocatalytic H₂ production with a turnover frequency >10⁷ s^{âˆ’1}: the medium provides an increase in rate but not overpotential. Energy and Environmental Science, 2014, 7, 4013-4017.	15.6	49
84	A Hydrogen-Evolving Ni(P₂N₂)₂ Electrocatalyst Covalently Attached to a Glassy Carbon Electrode: Preparation, Characterization, and Catalysis. Comparisons with the Homogeneous Analogue. Inorganic Chemistry, 2014, 53, 6875-6885.	1.9	49
85	Controlling Proton Delivery through Catalyst Structural Dynamics. Angewandte Chemie - International Edition, 2016, 55, 13509-13513.	7.2	48
86	Reversible Heterolytic Cleavage of the Hâ€“H Bond by Molybdenum Complexes: Controlling the Dynamics of Exchange Between Proton and Hydride. Journal of the American Chemical Society, 2017, 139, 7376-7387.	6.6	48
87	Molecular Catalysts with Diphosphine Ligands Containing Pendant Amines. Chemical Reviews, 2022, 122, 12427-12474.	23.0	48
88	Iron Complexes for the Electrocatalytic Oxidation of Hydrogen: Tuning Primary and Secondary Coordination Spheres. ACS Catalysis, 2014, 4, 1246-1260.	5.5	47
89	Modulating Hole Transport in Multilayered Photocathodes with Derivatized p-Type Nickel Oxide and Molecular Assemblies for Solar-Driven Water Splitting. Journal of Physical Chemistry Letters, 2017, 8, 4374-4379.	2.1	47
90	Synthesis of molybdenum-rhodium and molybdenum-iridium compounds linked by a heterodifunctional ligand and formation of molybdenum-iridium dihydrides by reaction with molecular hydrogen. Journal of the American Chemical Society, 1983, 105, 7574-7580.	6.6	46

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91	Ionic Hydrogenation of Alkynes by HOTf and Cp(CO)3WH. Journal of Organic Chemistry, 1995, 60, 7170-7176.	1.7	46
92	Operando XAFS Studies on Rh(CAAC)-Catalyzed Arene Hydrogenation. ACS Catalysis, 2019, 9, 4106-4114.	5.5	46
93	Diversion of Catalytic Câ€“N Bond Formation to Catalytic Oxidation of NH₃ through Modification of the Hydrogen Atom Abstractor. Journal of the American Chemical Society, 2020, 142, 3361-3365.	6.6	46
94	Homogeneous Ni Catalysts for H2Oxidation and Production: An Assessment of Theoretical Methods, from Density Functional Theory to Post Hartreeâ˘Fock Correlated Wave-Function Theory. Journal of Physical Chemistry A, 2010, 114, 12716-12724.	1.1	44
95	Heterolytic cleavage of H₂ by bifunctional manganese(<scp>i</scp>) complexes: impact of ligand dynamics, electrophilicity, and base positioning. Chemical Science, 2014, 5, 4729-4741.	3.7	44
96	Manganese-Based Molecular Electrocatalysts for Oxidation of Hydrogen. ACS Catalysis, 2015, 5, 6838-6847.	5.5	43
97	An N-heterocyclic carbene as a bidentate hemilabile ligand: a synchrotron X-ray diffraction and density functional theory studyElectronic supplementary information (ESI) available: experimental details and characterization data; table of results for hydrogenation of 3-pentanone; Gaussian 98 summary for the W and Mo models; ORTEP plot of 1W and crystal data. See http://www.rsc.org/suppdata/cc/b3/b303762b/. Chemical Communications, 2003, , 1670.	2.2	41
98	Alcohol Complexes of Tungsten Prepared by Ionic Hydrogenations of Ketones. Organometallics, 2001, 20, 3337-3346.	1.1	40
99	Comment on â€œNew Insights in the Electrocatalytic Proton Reduction and Hydrogen Oxidation by Bioinspired Catalysts: A DFT Investigationâ€• Journal of Physical Chemistry A, 2011, 115, 4861-4865.	1.1	40
100	Increasing the rate of hydrogen oxidation without increasing the overpotential: a bio-inspired iron molecular electrocatalyst with an outer coordination sphere proton relay. Chemical Science, 2015, 6, 2737-2745.	3.7	40
101	The Critical Role of Reductive Steps in the Nickelâ€Catalyzed Hydrogenolysis and Hydrolysis of Aryl Ether Câ˘O Bonds. Angewandte Chemie - International Edition, 2020, 59, 1445-1449.	7.2	40
102	Synthesis of Ruthenium Carbonyl Complexes with Phosphine or Substituted Cp Ligands, and Their Activity in the Catalytic Deoxygenation of 1,2-Propanediol. Inorganic Chemistry, 2009, 48, 6490-6500.	1.9	38
103	Ab Initio-Based Kinetic Modeling for the Design of Molecular Catalysts: The Case of H₂ Production Electrocatalysts. ACS Catalysis, 2015, 5, 5436-5452.	5.5	38
104	Ionic hydrogenations using transition metal hydrides. Rapid hydrogenation of hindered alkenes at low temperature. Journal of the Chemical Society Chemical Communications, 1989, , 1447.	2.0	37
105	Protonation of (PCP)PtH To Give a Dihydrogen Complex. Organometallics, 2002, 21, 1504-1507.	1.1	37
106	Comprehensive Thermochemistry of Wâ€“H Bonding in the Metal Hydrides CpW(CO)₂(IMes)H, [CpW(CO)₂(IMes)H]^{â€¢+}, and [CpW(CO)₂(IMes)(H)₂]⁺. Influence of an <i>N</i>-Heterocyclic Carbene Ligand on Metal Hydride Bond Energies. Journal of the American Chemical Society, 2011, 133, 14604-14613.	6.6	37
107	Iron Complexes Bearing Diphosphine Ligands with Positioned Pendant Amines as Electrocatalysts for the Oxidation of H₂. Organometallics, 2015, 34, 2747-2764.	1.1	37
108	Conformational Dynamics and Proton Relay Positioning in Nickel Catalysts for Hydrogen Production and Oxidation. Organometallics, 2013, 32, 7034-7042.	1.1	36

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109	Controlling proton movement: electrocatalytic oxidation of hydrogen by a nickel(<scp>ii</scp>) complex containing proton relays in the second and outer coordination spheres. Dalton Transactions, 2014, 43, 2744-2754.	1.6	35
110	Kinetic hydricity of transition-metal hydrides toward trityl cation. Organometallics, 1995, 14, 4031-4033.	1.1	34
111	Synthesis and reactivity of molybdenum and tungsten bis(dinitrogen) complexes supported by diphosphine chelates containing pendant amines. Dalton Transactions, 2012, 41, 4517.	1.6	34
112	A Silicon-Based Heterojunction Integrated with a Molecular Excited State in a Water-Splitting Tandem Cell. Journal of the American Chemical Society, 2019, 141, 10390-10398.	6.6	34
113	Cyclopropylbenzyl radical clocks. Journal of the Chemical Society Chemical Communications, 1989, , 1044.	2.0	33
114	Carbon-to-Metal Hydrogen Atom Transfer:Â Direct Observation Using Time-Resolved Infrared Spectroscopy. Journal of the American Chemical Society, 2005, 127, 15684-15685.	6.6	33
115	Synthesis, Structures, and Reactions of Manganese Complexes Containing Diphosphine Ligands with Pendant Amines. Organometallics, 2010, 29, 4532-4540.	1.1	33
116	Frustration across the periodic table: heterolytic cleavage of dihydrogen by metal complexes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20170002.	1.6	33
117	Intrinsic barriers to atom transfer (abstraction) processes; self-exchange rates for Cp(CO)3M.bul. radical/Cp(CO)3M-X halogen couples. Journal of the American Chemical Society, 1991, 113, 9862-9864.	6.6	32
118	Protonation Studies of a Mono-Dinitrogen Complex of Chromium Supported by a 12-Membered Phosphorus Macrocycle Containing Pendant Amines. Inorganic Chemistry, 2015, 54, 4827-4839.	1.9	32
119	Reaction: Earth-Abundant Metal Catalysts for Energy Conversions. CheM, 2017, 2, 444-446.	5.8	32
120	Water-Soluble Tungsten Hydrides:â€‰ Synthesis, Structures, and Reactions of (C5H4CO2H)(CO)3WH and Related Complexes. Organometallics, 2000, 19, 824-833.	1.1	31
121	Palladium complexes with PCP ligands.. Inorganica Chimica Acta, 2002, 330, 52-58.	1.2	31
122	Synthesis and Structure of CpMo(CO)(dppe)H and Its Oxidation by Ph3C+. Inorganic Chemistry, 2006, 45, 4712-4720.	1.9	31
123	Insertion of isocyanides into the carbon-zirconium bond of ruthenium/zirconium dimetalloalkenes. Spectroscopic and structural comparisons of the .eta.2-iminoacyl complexes Cp(PMe3)2RuCH:CRC(NBu-tert)ZrClCp2 (R = H vs. R = Me) and kinetics of isomerization of a thermodynamically unstable .eta.2-iminoacyl complex. Organometallics, 1992, 11, 876-884.	1.1	29
124	Hydrogen atom transfer reactions of transition-metal hydrides. Utilization of a radical rearrangement in the determination of hydrogen atom transfer rates. Journal of the American Chemical Society, 1987, 109, 6542-6544.	6.6	28
125	Protonation of Ferrous Dinitrogen Complexes Containing a Diphosphine Ligand with a Pendent Amine. Inorganic Chemistry, 2013, 52, 4026-4039.	1.9	28
126	Water-assisted proton delivery and removal in bio-inspired hydrogen production catalysts. Dalton Transactions, 2015, 44, 10969-10979.	1.6	28

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127	Design and reactivity of pentapyridyl metal complexes for ammonia oxidation. Chemical Communications, 2019, 55, 5083-5086.	2.2	27
128	Catalytic Ionic Hydrogenation of Ketones by {[Cp*Ru(CO)2]2(Î¼-H)}+. Organometallics, 2010, 29, 1045-1048.	1.1	26
129	Protonation Studies of a Tungsten Dinitrogen Complex Supported by a Diphosphine Ligand Containing a Pendant Amine. Organometallics, 2014, 33, 2189-2200.	1.1	26
130	Putting chromium on the map for N₂ reduction: production of hydrazine and ammonia. A study of cis-M(N₂)₂ (M = Cr, Mo, W) bis(diphosphine) complexes. Chemical Communications, 2016, 52, 9343-9346.	2.2	26
131	Alkyl nitrite complexes of ruthenium prepared by acid-base chemistry at the bound nitrosyl group. Inorganic Chemistry, 1980, 19, 865-869.	1.9	25
132	An uncommon bonding mode of a familiar ligand: a molybdenum complex with a four-electron donor chelating Î·3-PPh3 ligand, and its structural determination using synchrotron radiation. Chemical Communications, 1999, , 1629-1630.	2.2	25
133	Kinetic and Mechanistic Studies of Carbon-to-Metal Hydrogen Atom Transfer Involving Os-Centered Radicals: Evidence for Tunneling. Journal of the American Chemical Society, 2014, 136, 3572-3578.	6.6	25
134	H₂ Binding, Splitting, and Net Hydrogen Atom Transfer at a Paramagnetic Iron Complex. Journal of the American Chemical Society, 2019, 141, 1871-1876.	6.6	25
135	Ether Complexes of Tungsten with Two Different Binding Modes:Â An O-Bound Ether and an Î·2-(CC) Vinyl Ether. Evidence for CHÂ·Â·Â·O Hydrogen Bonding of Vinylic CH Groups. Journal of the American Chemical Society, 1996, 118, 11134-11141.	6.6	24
136	Solvent-free ketone hydrogenations catalyzed by molybdenum complexesElectronic supplementary information (ESI) available: additional spectroscopic data and description of the synthetic procedures. See http://www.rsc.org/suppdata/cc/b4/b401760a/. Chemical Communications, 2004, , 1014.	2.2	24
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