

Efficient Dehydrogenation of Formic Acid Using an Iron

Science

333, 1733-1736

DOI: [10.1126/science.1206613](https://doi.org/10.1126/science.1206613)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Ironing Out Hydrogen Storage. <i>Science</i> , 2011, 333, 1714-1715.	6.0	45
2	Mechanistic Studies on the Reversible Hydrogenation of Carbon Dioxide Catalyzed by an Ir-PNP Complex. <i>Organometallics</i> , 2011, 30, 6742-6750.	1.1	288
3	Katalyse für die chemische Wasserstoffspeicherung. <i>Nachrichten Aus Der Chemie</i> , 2011, 59, 1142-1146.	0.0	6
4	HCOOH als H ₂ -Speicher. <i>Chemie in Unserer Zeit</i> , 2011, 45, 371-371.	0.1	0
5	Application of Ionic Liquids in Hydrogen Storage Systems. , 0, , .		7
7	Liquid-phase chemical hydrogen storage materials. <i>Energy and Environmental Science</i> , 2012, 5, 9698.	15.6	737
8	Formic acid as a hydrogen source – recent developments and future trends. <i>Energy and Environmental Science</i> , 2012, 5, 8171.	15.6	1,000
9	A comprehensive and quantitative review of dark fermentative biohydrogen production. <i>Microbial Cell Factories</i> , 2012, 11, 115.	1.9	169
10	Well-Defined Iron Catalyst for Improved Hydrogenation of Carbon Dioxide and Bicarbonate. <i>Journal of the American Chemical Society</i> , 2012, 134, 20701-20704.	6.6	345
11	The generalized block-localized wavefunction method: A case study on the conformational preference and C=O rotational barrier of formic acid. <i>Journal of Chemical Physics</i> , 2012, 136, 144315.	1.2	11
12	Mixed-valence [Fe ^I Fe ^{II}] hydrogenase active site model complexes stabilized by a bidentate carborane bis-phosphine ligand. <i>Dalton Transactions</i> , 2012, 41, 12468.	1.6	40
13	Discrete Iron Complexes for the Selective Catalytic Reduction of Aromatic, Aliphatic, and Unsaturated Aldehydes under Water-Gas Shift Conditions. <i>Chemistry - A European Journal</i> , 2012, 18, 15935-15939.	1.7	59
14	Hydrogenolysis through catalytic transfer hydrogenation: Glycerol conversion to 1,2-propanediol. <i>Catalysis Today</i> , 2012, 195, 22-31.	2.2	91
16	Selective Catalytic Reduction of Nitrogen Oxide – Part 1: Formates as Ammonia Storage Compounds. <i>MTZ Worldwide</i> , 2012, 73, 60-66.	0.1	2
17	Palladium silica nanosphere-catalyzed decomposition of formic acid for chemical hydrogen storage. <i>Journal of Materials Chemistry</i> , 2012, 22, 19146.	6.7	85
18	Towards the development of a hydrogen battery. <i>Energy and Environmental Science</i> , 2012, 5, 8907.	15.6	151
19	Iron-iron oxide core-shell nanoparticles are active and magnetically recyclable olefin and alkyne hydrogenation catalysts in protic and aqueous media. <i>Chemical Communications</i> , 2012, 48, 3360.	2.2	91
20	Pendant amine bases speed up proton transfers to metals by splitting the barriers. <i>Chemical Communications</i> , 2012, 48, 4450.	2.2	30

#	ARTICLE	IF	CITATIONS
21	Strong metal–molecular support interaction (SMMSI): Amine-functionalized gold nanoparticles encapsulated in silica nanospheres highly active for catalytic decomposition of formic acid. <i>Journal of Materials Chemistry</i> , 2012, 22, 12582.	6.7	137
22	sp ² C–H activation of dimethyl fumarate by a [(Cp*Co) ₂ –(1,4- <i>q</i> -toluene)] complex. <i>Dalton Transactions</i> , 2012, 41, 8190.	1.6	10
23	Pd/C Synthesized with Citric Acid: An Efficient Catalyst for Hydrogen Generation from Formic Acid/Sodium Formate. <i>Scientific Reports</i> , 2012, 2, 598.	1.6	173
24	Thermodynamics of Formate-Oxidizing Metabolism and Implications for H ₂ Production. <i>Applied and Environmental Microbiology</i> , 2012, 78, 7393-7397.	1.4	34
25	Reversible hydrogen storage using CO ₂ and a proton-switchable iridium catalyst in aqueous media under mild temperatures and pressures. <i>Nature Chemistry</i> , 2012, 4, 383-388.	6.6	830
26	Synthesis and solvent dependent reactivity of chelating bis-N-heterocyclic carbene complexes of Fe(II) hydrides. <i>Dalton Transactions</i> , 2012, 41, 2685.	1.6	33
27	Metal Hydride and Ligand Proton Transfer Mechanism for the Hydrogenation of Dimethyl Carbonate to Methanol Catalyzed by a Pincer Ruthenium Complex. <i>ACS Catalysis</i> , 2012, 2, 964-970.	5.5	58
28	The role of the bridging ligand in photocatalytic supramolecular assemblies for the reduction of protons and carbon dioxide. <i>Coordination Chemistry Reviews</i> , 2012, 256, 1682-1705.	9.5	140
29	Adsorption of mercaptobenzoheterocyclic compounds on sulfide mineral surfaces: A density functional theory study of structure–reactivity relations. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2012, 409, 1-9.	2.3	64
30	Metal–Nanoparticle Catalyzed Hydrogen Generation from Liquid–Phase Chemical Hydrogen Storage Materials. <i>Journal of the Chinese Chemical Society</i> , 2012, 59, 1181-1189.	0.8	12
31	Selective iron-catalyzed transfer hydrogenation of terminal alkynes. <i>Chemical Communications</i> , 2012, 48, 4827.	2.2	103
32	Efficient Subnanometric Gold-Catalyzed Hydrogen Generation via Formic Acid Decomposition under Ambient Conditions. <i>Journal of the American Chemical Society</i> , 2012, 134, 8926-8933.	6.6	394
33	Reaction pathways derived from DFT for understanding catalytic decomposition of formic acid into hydrogen on noble metals. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 15956-15965.	3.8	91
34	One-pot synthesis of ultra-branched mixed tetradentate tripodal phosphines and phosphine chalcogenides. <i>Tetrahedron</i> , 2012, 68, 9218-9225.	1.0	11
36	Organische Chemie 2011. <i>Nachrichten Aus Der Chemie</i> , 2012, 60, 265-299.	0.0	1
37	Unsensitized Photochemical Hydrogen Production Catalyzed by Diiron Hydrides. <i>Journal of the American Chemical Society</i> , 2012, 134, 4525-4528.	6.6	69
38	Efficient catalytic hydrogenation of levulinic acid: a key step in biomass conversion. <i>Green Chemistry</i> , 2012, 14, 2057.	4.6	128
39	Catalytic interconversion between hydrogen and formic acid at ambient temperature and pressure. <i>Energy and Environmental Science</i> , 2012, 5, 7360.	15.6	192

#	ARTICLE	IF	CITATIONS
40	Formate oxidation via I^2 -deprotonation in $[\text{Ni}(\text{PR}_2\text{NR}^{\oplus 2})_2(\text{CH}_3\text{CN})]^{2+}$ complexes. <i>Energy and Environmental Science</i> , 2012, 5, 6480.	15.6	58
41	Hexaphosphine: A Multifaceted Ligand for Transition Metal Coordination. <i>European Journal of Inorganic Chemistry</i> , 2012, 2012, 1347-1352.	1.0	9
47	Towards a Green Process for Bulk-Scale Synthesis of Ethyl Acetate: Efficient Acceptorless Dehydrogenation of Ethanol. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 5711-5713.	7.2	252
49	Dihydrogen-Catalyzed Reversible Carbon-Hydrogen and Nitrogen-Hydrogen Bond Formation in Organometallic Iridium Complexes. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 7555-7557.	7.2	13
50	Chemoselective Transfer Hydrogenation to Nitroarenes Mediated by Cubane-Type Mo_3S_4 Cluster Catalysts. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 7794-7798.	7.2	149
51	The Rise of the Iron Age in Hydrogen Evolution?. <i>ChemCatChem</i> , 2012, 4, 323-325.	1.8	20
52	Conversion of Syngas into Formic Acid. <i>ChemCatChem</i> , 2012, 4, 469-471.	1.8	18
53	Transition metal ion-assisted photochemical generation of alkyl halides and hydrocarbons from carboxylic acids. <i>Dalton Transactions</i> , 2012, 41, 5974.	1.6	14
54	Synthesis and photophysics of a novel photocatalyst for hydrogen production based on a tetrapyrrodoacridine bridging ligand. <i>Chemical Physics</i> , 2012, 393, 65-73.	0.9	27
55	Borane-Mediated Carbon Dioxide Reduction at Ruthenium: Formation of C_1 and C_2 Compounds. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 1671-1674.	7.2	189
56	Base-Free Production of H_2 by Dehydrogenation of Formic Acid Using An Iridium-bisMETAMORPhos Complex. <i>Chemistry - A European Journal</i> , 2013, 19, 11507-11511.	1.7	87
57	Function of formate dehydrogenases in <i>Desulfovibrio vulgaris</i> Hildenborough energy metabolism. <i>Microbiology (United Kingdom)</i> , 2013, 159, 1760-1769.	0.7	56
58	Reductive Elimination at an Ortho-Metalated Iridium(III) Hydride Bearing a Tripodal Tetrakisphosphorus Ligand. <i>Organometallics</i> , 2013, 32, 4284-4291.	1.1	20
59	Hydrogen storage: beyond conventional methods. <i>Chemical Communications</i> , 2013, 49, 8735.	2.2	417
60	Catalytic Processes of Lignocellulosic Feedstock Conversion for Production of Furfural, Levulinic Acid, and Formic Acid-Based Fuel Components. , 2013, , 91-113.		8
61	Application of Carbon Dioxide in Hydrogen Storage: Homogeneous Hydrogenation of Carbon Dioxide and Dehydrogenation of Formic Acid. , 2013, , 171-188.		6
62	Hydrogenation of nitroarenes using defined iron-phosphine catalysts. <i>Chemical Communications</i> , 2013, 49, 9089.	2.2	90
63	Interconversion of CO_2 and formic acid by bio-inspired Ir complexes with pendent bases. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2013, 1827, 1031-1038.	0.5	100

#	ARTICLE	IF	CITATIONS
64	Fast and selective iron-catalyzed transfer hydrogenations of aldehydes. <i>Journal of Organometallic Chemistry</i> , 2013, 744, 156-159.	0.8	56
65	Au@Pd core-shell nanoclusters growing on nitrogen-doped mildly reduced graphene oxide with enhanced catalytic performance for hydrogen generation from formic acid. <i>Journal of Materials Chemistry A</i> , 2013, 1, 12721.	5.2	196
66	Hydrogen Generation from Formic Acid and Alcohols. , 2013, , 587-603.		7
67	Chemoselective Oxidative C(CO) \rightarrow C(methyl) Bond Cleavage of Methyl Ketones to Aldehydes Catalyzed by CuI with Molecular Oxygen. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 11303-11307.	7.2	170
68	Cooperative Iron-Bronsted Acid Catalysis: Enantioselective Hydrogenation of Quinoxalines and 2-Hydroxy-1,4-Benzoxazines. <i>Chemistry - A European Journal</i> , 2013, 19, 4997-5003.	1.7	140
69	Kinetic and Electrochemical Studies of the Oxidative Addition of Demanding Organic Halides to Pd(0): the Efficiency of Polyphosphane Ligands in Low Palladium Loading Cross-Couplings Decrypted. <i>Inorganic Chemistry</i> , 2013, 52, 11923-11933.	1.9	16
70	Highly Efficient Dehydrogenation of Formic Acid over a Palladium Nanoparticle-Based Mott-Schottky Photocatalyst. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 11822-11825.	7.2	210
71	Cobalt Precursors for High-Throughput Discovery of Base Metal Asymmetric Alkene Hydrogenation Catalysts. <i>Science</i> , 2013, 342, 1076-1080.	6.0	346
72	Nanoscale Fe ₂ O ₃ -Based Catalysts for Selective Hydrogenation of Nitroarenes to Anilines. <i>Science</i> , 2013, 342, 1073-1076.	6.0	868
73	Hydrogen generation from formic acid decomposition on Ni(211), Pd(211) and Pt(211). <i>Journal of Molecular Catalysis A</i> , 2013, 379, 169-177.	4.8	38
74	The impact of Metal-Ligand Cooperation in Hydrogenation of Carbon Dioxide Catalyzed by Ruthenium PNP Pincer. <i>ACS Catalysis</i> , 2013, 3, 2522-2526.	5.5	136
75	In situ hydrogenation of captured CO ₂ to formate with polyethyleneimine and Rh/monophosphine system. <i>Green Chemistry</i> , 2013, 15, 2825.	4.6	112
76	Selective Hydrogenation of Phenol and Derivatives over Polymer-Functionalized Carbon Nanofiber-Supported Palladium Using Sodium Formate as the Hydrogen Source. <i>ChemPlusChem</i> , 2013, 78, 1370-1378.	1.3	42
77	FORMIC ACID DEHYDROGENATION ON SURFACES - A REVIEW OF COMPUTATIONAL ASPECT. <i>Journal of Theoretical and Computational Chemistry</i> , 2013, 12, 1330001.	1.8	39
78	One Site Is Enough: A Theoretical Investigation of Iron-Catalyzed Dehydrogenation of Formic Acid. <i>Chemistry - A European Journal</i> , 2013, 19, 11869-11873.	1.7	29
79	Base Metal Catalysts for Photochemical C-H Borylation That Utilize Metal-Metal Cooperativity. <i>Journal of the American Chemical Society</i> , 2013, 135, 17258-17261.	6.6	235
80	Trapping the catalyst working state by amber-inspired hybrid material to reveal the cobalt nanostructure evolution in clean liquid fuel synthesis. <i>Catalysis Science and Technology</i> , 2013, 3, 2639.	2.1	11
81	Synthesis, characterization and computational study of heterobimetallic CoFe complexes for mimicking hydrogenase. <i>RSC Advances</i> , 2013, 3, 3557.	1.7	14

#	ARTICLE	IF	CITATIONS
82	The reduction of carbon dioxide in iron biocatalyst catalytic hydrogenation reaction: a theoretical study. Dalton Transactions, 2013, 42, 11186.	1.6	16
83	Mechanistic insights into iron catalyzed dehydrogenation of formic acid: \hat{I}^2 -hydride elimination vs. direct hydride transfer. Dalton Transactions, 2013, 42, 11987.	1.6	58
84	Electroless synthesis of nanostructured nickel and nickel–boron tubes and their performance as unsupported ethanol electrooxidation catalysts. Journal of Power Sources, 2013, 222, 243-252.	4.0	82
85	The Isolation of $[Pd\{OC(O)H\}(H)(NHC)(PR_3)_3]$ (NHC = N-Heterocyclic Carbene) and Its Role in Alkene and Alkyne Reductions Using Formic Acid. Journal of the American Chemical Society, 2013, 135, 4588-4591.	6.6	96
86	Monodisperse gold–palladium alloy nanoparticles and their composition-controlled catalysis in formic acid dehydrogenation under mild conditions. Nanoscale, 2013, 5, 910-912.	2.8	211
87	Comment on “Turning Over™ Definitions in Catalytic Cycles”. ACS Catalysis, 2013, 3, 381-382.	5.5	53
88	Complete Catalytic Deoxygenation of CO_2 into Formamidine Derivatives. ChemCatChem, 2013, 5, 117-120.	1.8	124
89	Sulfate-reducing bacteria as new microorganisms for biological hydrogen production. International Journal of Hydrogen Energy, 2013, 38, 12294-12301.	3.8	49
90	Insights into hydrogen generation from formic acid on PtRuBiOx in aqueous solution at room temperature. International Journal of Hydrogen Energy, 2013, 38, 8720-8731.	3.8	13
91	Microwave-assisted conversion of carbohydrates to levulinic acid: an essential step in biomass conversion. Green Chemistry, 2013, 15, 439-445.	4.6	188
92	A Unique Palladium Catalyst for Efficient and Selective Alkoxy carbonylation of Olefins with Formates. ChemSusChem, 2013, 6, 417-420.	3.6	67
93	Low-temperature aqueous-phase methanol dehydrogenation to hydrogen and carbon dioxide. Nature, 2013, 495, 85-89.	13.7	680
94	Direct, in situ determination of pH and solute concentrations in formic acid dehydrogenation and CO_2 hydrogenation in pressurised aqueous solutions using 1H and ^{13}C NMR spectroscopy. Dalton Transactions, 2013, 42, 4353.	1.6	52
95	Dual functionality of formamidine polymers, as ligands and as bases, in ruthenium-catalysed hydrogen evolution from formic acid. Polymer Chemistry, 2013, 4, 2741.	1.9	5
96	Hydrogenation of levulinic acid to \hat{I}^3 -valerolactone using ruthenium nanoparticles. Inorganica Chimica Acta, 2013, 397, 124-128.	1.2	80
97	Bio-inspired Catalytic Imine Reduction by Rhodium Complexes with Tethered Hantzsch Pyridinium Groups: Evidence for Direct Hydride Transfer from Dihydropyridine to Metal-Activated Substrate. Angewandte Chemie - International Edition, 2013, 52, 3411-3416.	7.2	25
98	Decamethylscandocinium-hydrido-(perfluorophenyl)borate: fixation and tandem tris(perfluorophenyl)borane catalysed deoxygenative hydrosilation of carbon dioxide. Chemical Science, 2013, 4, 2152.	3.7	132
99	Dehydrogenation of Alcohols by Bis(phosphinite) Benzene Based and Bis(phosphine) Ruthenocene Based Iridium Pincer Complexes. Organometallics, 2013, 32, 1000-1015.	1.1	51

#	ARTICLE	IF	CITATIONS
100	Ruthenium(II)-Catalyzed Hydrogen Generation from Formic Acid using Cationic, Ammoniomethyl-Substituted Triarylphosphine Ligands. <i>ChemCatChem</i> , 2013, 5, 1126-1132.	1.8	41
101	Selective Oxidation of Alcohols to Esters Using Heterogeneous Co ₃ O ₄ -N@C Catalysts under Mild Conditions. <i>Journal of the American Chemical Society</i> , 2013, 135, 10776-10782.	6.6	334
102	The DFT study of cyclohexyl hydroxamic acid as a collector in scheelite flotation. <i>Minerals Engineering</i> , 2013, 49, 54-60.	1.8	123
103	Iron(III) Triflimide as a Catalytic Substitute for Gold(I) in Hydroaddition Reactions to Unsaturated Carbon-Carbon Bonds. <i>Chemistry - A European Journal</i> , 2013, 19, 8627-8633.	1.7	34
104	Efficient Hydrogen Liberation from Formic Acid Catalyzed by a Well-Defined Iron Pincer Complex under Mild Conditions. <i>Chemistry - A European Journal</i> , 2013, 19, 8068-8072.	1.7	208
105	Towards a Practical Setup for Hydrogen Production from Formic Acid. <i>ChemSusChem</i> , 2013, 6, 1172-1176.	3.6	117
106	Long-range metal-ligand bifunctional catalysis: cyclometallated iridium catalysts for the mild and rapid dehydrogenation of formic acid. <i>Chemical Science</i> , 2013, 4, 1234.	3.7	168
107	Formic acid dehydrogenation catalysed by ruthenium complexes bearing the tripodal ligands triphos and NP ₃ . <i>Dalton Transactions</i> , 2013, 42, 2495-2501.	1.6	86
108	Status and Development in Hydrogen Transport and Storage for Energy Applications. <i>Energy Technology</i> , 2013, 1, 501-511.	1.8	51
109	Inner- versus Outer-Sphere Ru-Catalyzed Formic Acid Dehydrogenation: A Computational Study. <i>Organometallics</i> , 2013, 32, 7053-7064.	1.1	31
110	Heterogeneous Silica-Supported Ruthenium Phosphine Catalysts for Selective Formic Acid Decomposition. <i>ChemCatChem</i> , 2013, 5, 3124-3130.	1.8	67
111	Back-cloaking of Fe ²⁺ /Fe ¹⁺ spin states in a H ₂ -producing catalyst by advanced EPR. <i>Molecular Physics</i> , 2013, 111, 2942-2949.	0.8	7
112	An Efficient CoAuPd/C Catalyst for Hydrogen Generation from Formic Acid at Room Temperature. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 4406-4409.	7.2	337
114	Changeover of the Thermodynamic Behavior for Hydrogen Storage in Rh with Increasing Nanoparticle Size. <i>Chemistry Letters</i> , 2013, 42, 55-56.	0.7	10
118	Hydrogen Storage Using Ionic Liquid Media. <i>Current Organic Chemistry</i> , 2013, 17, 220-228.	0.9	20
119	Transformation of sodium bicarbonate and CO ₂ into sodium formate over NiPd nanoparticle catalyst. <i>Frontiers in Chemistry</i> , 2013, 1, 17.	1.8	8
120	Formic Acid Dehydrogenation Catalysed by Tris(TPPTS) Ruthenium Species: Mechanism of the Initial "Fast" Cycle. <i>ChemCatChem</i> , 2014, 6, 3146-3152.	1.8	43
122	Co-catalytic Effect of Functionalized SiO ₂ Materials on H ₂ Production from Formic Acid by an Iron Catalyst. <i>Materials Research Society Symposia Proceedings</i> , 2014, 1641, 1.	0.1	2

#	ARTICLE	IF	CITATIONS
124	Polyoxometalate-mediated electron transfer ^{â€} oxygen transfer oxidation of cellulose and hemicellulose to synthesis gas. <i>Nature Communications</i> , 2014, 5, 4621.	5.8	72
126	Efficient Disproportionation of Formic Acid to Methanol Using Molecular Ruthenium Catalysts. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 10466-10470.	7.2	77
127	A new Cu-based system for formic acid dehydrogenation. <i>RSC Advances</i> , 2014, 4, 61514-61517.	1.7	35
128	Equimolar Carbon Absorption by Potassium Phthalimide and In Situ Catalytic Conversion Under Mild Conditions. <i>ChemSusChem</i> , 2014, 7, 1484-1489.	3.6	45
129	Formic acid decomposition on Au catalysts: DFT, microkinetic modeling, and reaction kinetics experiments. <i>AIChE Journal</i> , 2014, 60, 1303-1319.	1.8	87
130	Facile synthesis of nitrogen-doped graphene supported AuPd ^{â€} CeO ₂ nanocomposites with high-performance for hydrogen generation from formic acid at room temperature. <i>Nanoscale</i> , 2014, 6, 3073.	2.8	99
131	Chemical Equilibria in Formic Acid/Amine ^{â€} CO ₂ Cycles under Isochoric Conditions using a Ruthenium(II) 1,2 ^{â€} Bis(diphenylphosphino)ethane Catalyst. <i>ChemCatChem</i> , 2014, 6, 96-99.	1.8	25
132	A Rechargeable Hydrogen Battery Based on Ru Catalysis. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 7074-7078.	7.2	92
133	Aluminium ^{â€} ligand cooperation promotes selective dehydrogenation of formic acid to H ₂ and CO ₂ . <i>Chemical Science</i> , 2014, 5, 2771-2777.	3.7	156
134	Formic Acid Dehydrogenation with Bioinspired Iridium Complexes: A Kinetic Isotope Effect Study and Mechanistic Insight. <i>ChemSusChem</i> , 2014, 7, 1976-1983.	3.6	123
135	Reaction of Dinuclear Rhodium 4,5-Diazafluorenyl-9-Carboxylate Complexes with H ₂ and CO ₂ . <i>Organometallics</i> , 2014, 33, 2776-2783.	1.1	12
136	Cooperative Catalysis: Electron ^{â€} Rich Fe ^{â€} H Complexes and DMAP, a Successful ^{â€} Joint Venture ^{â€} for Ultrafast Hydrogen Production. <i>Chemistry - an Asian Journal</i> , 2014, 9, 2140-2147.	1.7	15
137	Fe or Fe ^{â€} NO Catalysis? A Quantum Chemical Investigation of the [Fe(CO) ₃ (NO)] ^{â€} Catalyzed Cloke ^{â€} Wilson Rearrangement. <i>Chemistry - A European Journal</i> , 2014, 20, 7254-7257.	1.7	41
138	Electrochemical Reduction of Carbon Dioxide to Formic Acid. <i>ChemElectroChem</i> , 2014, 1, 836-849.	1.7	206
139	Spectroscopic and electrochemical characterization of heteropoly acids for their optimized application in selective biomass oxidation to formic acid. <i>Green Chemistry</i> , 2014, 16, 226-237.	4.6	120
140	Interconversion of CO ₂ /H ₂ and Formic Acid Under Mild Conditions in Water. <i>Advances in Inorganic Chemistry</i> , 2014, 66, 189-222.	0.4	24
141	Catalytic Hydrogenation of Carbon Dioxide to Formic Acid. <i>Advances in Inorganic Chemistry</i> , 2014, , 223-258.	0.4	39
142	Controlled Synthesis of Ultrafine Surfactant-Free NiPt Nanocatalysts toward Efficient and Complete Hydrogen Generation from Hydrazine Borane at Room Temperature. <i>ACS Catalysis</i> , 2014, 4, 4261-4268.	5.5	83

#	ARTICLE	IF	CITATIONS
143	Direct Synthesis of 1,6-Hexanediol from HMF over a Heterogeneous Pd/ZrP Catalyst using Formic Acid as Hydrogen Source. <i>ChemSusChem</i> , 2014, 7, 96-100.	3.6	196
144	Base-Free Non-Noble-Metal-Catalyzed Hydrogen Generation from Formic Acid: Scope and Mechanistic Insights. <i>Chemistry - A European Journal</i> , 2014, 20, 13589-13602.	1.7	53
145	Efficient H ₂ generation from formic acid using azole complexes in water. <i>Catalysis Science and Technology</i> , 2014, 4, 34-37.	2.1	118
146	Hydrogen Production by Selective Dehydrogenation of HCOOH Catalyzed by Ru-Biaryl Sulfonated Phosphines in Aqueous Solution. <i>ACS Catalysis</i> , 2014, 4, 3002-3012.	5.5	68
147	DNA-directed growth of ultrafine CoAuPd nanoparticles on graphene as efficient catalysts for formic acid dehydrogenation. <i>Chemical Communications</i> , 2014, 50, 2732.	2.2	87
148	Production of platform molecules from sweet sorghum. <i>RSC Advances</i> , 2014, 4, 2081-2088.	1.7	27
149	New perspectives in hydrogen storage based on RCH ₂ NH ₂ /RCN couples. <i>Dalton Transactions</i> , 2014, 43, 6283-6286.	1.6	17
150	Mild and selective hydrogenation of aromatic and aliphatic (di)nitriles with a well-defined iron pincer complex. <i>Nature Communications</i> , 2014, 5, 4111.	5.8	260
151	Understanding catalysis. <i>Chemical Society Reviews</i> , 2014, 43, 8226-8239.	18.7	166
152	Lewis Acid-Assisted Formic Acid Dehydrogenation Using a Pincer-Supported Iron Catalyst. <i>Journal of the American Chemical Society</i> , 2014, 136, 10234-10237.	6.6	377
153	Carbon dioxide mediated, reversible chemical hydrogen storage using a Pd nanocatalyst supported on mesoporous graphitic carbon nitride. <i>Journal of Materials Chemistry A</i> , 2014, 2, 9490.	5.2	206
155	Au-Pd alloy catalyst with high performance for hydrogen generation from formic acid-formate solution at nearly 0 °C. <i>RSC Advances</i> , 2014, 4, 44500-44503.	1.7	20
156	Formic Acid As a Hydrogen Storage Medium: Ruthenium-Catalyzed Generation of Hydrogen from Formic Acid in Emulsions. <i>ACS Catalysis</i> , 2014, 4, 311-320.	5.5	72
157	Transformation of Cellulose and its Derived Carbohydrates into Formic and Lactic Acids Catalyzed by Vanadyl Cations. <i>ChemSusChem</i> , 2014, 7, 1557-1567.	3.6	148
158	Efficient dehydrogenation of formic acid using Al ₁₂ N ₁₂ nanocage: A DFT study. <i>Superlattices and Microstructures</i> , 2014, 75, 17-26.	1.4	19
159	Selective Hydrogen Production from Formic Acid Decomposition on Pd-Au Bimetallic Surfaces. <i>Journal of the American Chemical Society</i> , 2014, 136, 11070-11078.	6.6	208
160	Ruthenium-Catalyzed Hydrogen Generation from Alcohols and Formic Acid, Including Ru-Pincer-Type Complexes. <i>Topics in Organometallic Chemistry</i> , 2014, , 45-79.	0.7	14
161	Designing metal hydride complexes for water splitting reactions: a molecular electrostatic potential approach. <i>Dalton Transactions</i> , 2014, 43, 12279-12287.	1.6	19

#	ARTICLE	IF	CITATIONS
162	Sodium hydroxide-assisted growth of uniform Pd nanoparticles on nanoporous carbon MSC-30 for efficient and complete dehydrogenation of formic acid under ambient conditions. <i>Chemical Science</i> , 2014, 5, 195-199.	3.7	219
163	Towards a Sustainable Synthesis of Formate Salts: Combined Catalytic Methanol Dehydrogenation and Bicarbonate Hydrogenation. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 7085-7088.	7.2	67
164	Molybdenum carbide catalysed hydrogen production from formic acid – A density functional theory study. <i>Journal of Power Sources</i> , 2014, 246, 548-555.	4.0	45
165	Effective dehydrogenation of 2-pyridylmethanol derivatives catalyzed by an iron complex. <i>Chemical Communications</i> , 2014, 50, 7941-7944.	2.2	44
166	Biorefineries – their scenarios and challenges. <i>Pure and Applied Chemistry</i> , 2014, 86, 821-831.	0.9	15
167	Reversible CO ₂ binding triggered by metal–ligand cooperation in a rhenium(<i>scp</i>) PNP pincer-type complex and the reaction with dihydrogen. <i>Chemical Science</i> , 2014, 5, 2043-2051.	3.7	120
168	Selective reduction of CO ₂ to a methanol equivalent by B(C ₆ F ₅) ₃ -activated alkaline earth catalysis. <i>Chemical Science</i> , 2014, 5, 2826-2830.	3.7	131
169	Hydrogen generation from formic acid decomposition at room temperature using a NiAuPd alloy nanocatalyst. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 4850-4856.	3.8	121
170	General Catalytic Methylation of Amines with Formic Acid under Mild Reaction Conditions. <i>Chemistry - A European Journal</i> , 2014, 20, 7878-7883.	1.7	107
171	Direct synthesis of formic acid from carbon dioxide by hydrogenation in acidic media. <i>Nature Communications</i> , 2014, 5, 4017.	5.8	549
172	Activity of Pd/C for hydrogen generation in aqueous formic acid solution. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 381-390.	3.8	134
173	Pd/C nanocatalyst with high turnover frequency for hydrogen generation from the formic acid–formate mixtures. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 837-843.	3.8	72
174	Homogeneous Catalytic Processes Monitored by Combined <i>in Situ</i> ATR-IR, UV–Vis, and Raman Spectroscopy. <i>ACS Catalysis</i> , 2014, 4, 2153-2164.	5.5	43
175	Hydrogenation of Biofuels with Formic Acid over a Palladium–Based Ternary Catalyst with Two Types of Active Sites. <i>ChemSusChem</i> , 2014, 7, 1537-1541.	3.6	43
176	A Highly Active and Air-Stable Ruthenium Complex for the Ambient Temperature Anti-Markovnikov Reductive Hydration of Terminal Alkynes. <i>Journal of the American Chemical Society</i> , 2014, 136, 7058-7067.	6.6	67
177	Selective and mild hydrogen production using water and formaldehyde. <i>Nature Communications</i> , 2014, 5, 3621.	5.8	147
178	Base-free hydrogen generation from methanol using a bi-catalytic system. <i>Chemical Communications</i> , 2014, 50, 707-709.	2.2	122
179	A DFT Study: Why Do [Ni(P ^R) ₂ N ^R] ₂ Complexes Facilitate the Electrocatalytic Oxidation of Formate?. <i>Inorganic Chemistry</i> , 2014, 53, 3281-3289.	1.9	15

#	ARTICLE	IF	CITATIONS
181	Photocatalytic Formic Acid Conversion on CdS Nanocrystals with Controllable Selectivity for H ₂ or CO. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 9627-9631.	7.2	96
182	Liquid organic hydrogen carriers. <i>Journal of Energy Chemistry</i> , 2015, 24, 587-594.	7.1	167
183	Amine-Free Reversible Hydrogen Storage in Formate Salts Catalyzed by Ruthenium Pincer Complex without pH Control or Solvent Change. <i>ChemSusChem</i> , 2015, 8, 1442-1451.	3.6	107
185	A Viable Hydrogen Storage and Release System Based on Cesium Formate and Bicarbonate Salts: Mechanistic Insights into the Hydrogen Release Step. <i>ChemCatChem</i> , 2015, 7, 2332-2339.	1.8	32
186	Iridicyclic-Catalysed Imine Reduction: An Experimental and Computational Study of the Mechanism. <i>Chemistry - A European Journal</i> , 2015, 21, 16564-16577.	1.7	46
187	Unprecedentedly High Formic Acid Dehydrogenation Activity on an Iridium Complex with an N,N'-diimine Ligand in Water. <i>Chemistry - A European Journal</i> , 2015, 21, 12592-12595.	1.7	124
188	First-principles study of hydrogen diffusion in transition metal Rhodium. <i>Journal of Physics: Conference Series</i> , 2015, 574, 012047.	0.3	2
189	Hydrothermal Preparation of a Robust Boehmite-Supported N,N'-Dimethyldodecylamine Oxide-Capped Cobalt and Palladium Catalyst for the Facile Utilization of Formic Acid as a Hydrogen Source. <i>ChemCatChem</i> , 2015, 7, 2361-2369.	1.8	16
190	Water-Soluble Iridium-NHC-Phosphine Complexes as Catalysts for Chemical Hydrogen Batteries Based on Formate. <i>ChemSusChem</i> , 2015, 8, 3036-3038.	3.6	38
191	Photochemical Reduction of Carbon Dioxide to Formic Acid using Ruthenium(II)-Based Catalysts and Visible Light. <i>ChemCatChem</i> , 2015, 7, 3316-3321.	1.8	28
192	Enhanced Hydrogen Generation from Formic Acid by Half-Sandwich Iridium(III) Complexes with Metal/NH Bifunctionality: A Pronounced Switch from Transfer Hydrogenation. <i>Chemistry - A European Journal</i> , 2015, 21, 13513-13517.	1.7	63
193	Application of Si-doped graphene as a metal-free catalyst for decomposition of formic acid: A theoretical study. <i>International Journal of Quantum Chemistry</i> , 2015, 115, 1153-1160.	1.0	23
194	Metal-Organic Frameworks as Platforms for Hydrogen Generation from Chemical Hydrides. <i>Green Chemistry and Sustainable Technology</i> , 2015, , 421-467.	0.4	0
195	Facile synthesis of AgAuPd/graphene with high performance for hydrogen generation from formic acid. <i>Journal of Materials Chemistry A</i> , 2015, 3, 14535-14538.	5.2	94
196	AuPd-MnO _x /MOF-Graphene: An Efficient Catalyst for Hydrogen Production from Formic Acid at Room Temperature. <i>Advanced Energy Materials</i> , 2015, 5, 1500107.	10.2	203
197	Organometallics and Related Molecules for Energy Conversion. <i>Green Chemistry and Sustainable Technology</i> , 2015, , .	0.4	4
198	Mg ²⁺ -assisted low temperature reduction of alloyed AuPd/C: an efficient catalyst for hydrogen generation from formic acid at room temperature. <i>Chemical Communications</i> , 2015, 51, 10887-10890.	2.2	34
199	Probing the second dehydrogenation step in ammonia-borane dehydrocoupling: characterization and reactivity of the key intermediate, B-(cyclotriborazanyl)amine-borane. <i>Chemical Science</i> , 2015, 6, 618-624.	3.7	58

#	ARTICLE	IF	CITATIONS
200	Immobilizing Highly Catalytically Active Noble Metal Nanoparticles on Reduced Graphene Oxide: A Non-Noble Metal Sacrificial Approach. <i>Journal of the American Chemical Society</i> , 2015, 137, 106-109.	6.6	213
201	Exploring the Reactivity of Nickel Pincer Complexes in the Decomposition of Formic Acid to CO ₂ /H ₂ and the Hydrogenation of NaHCO ₃ to HCOONa. <i>ChemCatChem</i> , 2015, 7, 65-69.	1.8	105
202	Metal-Free Decomposition of Formic Acid on Pristine and Carbon-Doped Boron Nitride Fullerene: A DFT Study. <i>Journal of Cluster Science</i> , 2015, 26, 595-608.	1.7	11
203	Energiespeicherung als Element einer sicheren Energieversorgung. <i>Chemie-Ingenieur-Technik</i> , 2015, 87, 17-89.	0.4	89
205	Theoretical Study on the Mechanism of Aqueous Synthesis of Formic Acid Catalyzed by [Ru ³⁺]-EDTA Complex. <i>Inorganic Chemistry</i> , 2015, 54, 1314-1324.	1.9	7
206	CO ₂ Hydrogenation Catalyzed by Iridium Complexes with a Proton-Responsive Ligand. <i>Inorganic Chemistry</i> , 2015, 54, 5114-5123.	1.9	106
207	Hydrogenation of Biomass-Derived Levulinic Acid into ¹³ C-Valerolactone Catalyzed by Palladium Complexes. <i>ACS Catalysis</i> , 2015, 5, 1424-1431.	5.5	89
208	Iron(II) Complexes of the Linear <i>rac</i> -Tetraphos-1 Ligand as Efficient Homogeneous Catalysts for Sodium Bicarbonate Hydrogenation and Formic Acid Dehydrogenation. <i>ACS Catalysis</i> , 2015, 5, 1254-1265.	5.5	120
209	When iron met phosphines: a happy marriage for reduction catalysis. <i>Green Chemistry</i> , 2015, 17, 2283-2303.	4.6	85
210	Catalytic Hydrogenation of CO ₂ to Formates by a Lutidine-Derived Ru ^{II} Pincer Complex: Theoretical Insight into the Unrealized Potential. <i>ACS Catalysis</i> , 2015, 5, 1145-1154.	5.5	109
211	Opportunities for Utilizing and Recycling CO ₂ . , 2015, , 67-100.		6
212	Dehydrogenation, disproportionation and transfer hydrogenation reactions of formic acid catalyzed by molybdenum hydride compounds. <i>Chemical Science</i> , 2015, 6, 1859-1865.	3.7	80
213	Nitrogen-Doped Graphene-Activated Iron-Oxide-Based Nanocatalysts for Selective Transfer Hydrogenation of Nitroarenes. <i>ACS Catalysis</i> , 2015, 5, 1526-1529.	5.5	146
214	Highly efficient hydrogenation of carbon dioxide to formate catalyzed by iridium(^{III}) complexes of imine ²⁺ diphosphine ligands. <i>Chemical Science</i> , 2015, 6, 2928-2931.	3.7	75
216	Efficient production of hydrogen from formic acid using a Covalent Triazine Framework supported molecular catalyst. <i>ChemSusChem</i> , 2015, 8, 809-812.	3.6	97
217	Hydrogenation and Dehydrogenation Iron Pincer Catalysts Capable of Metal ^{II} -Ligand Cooperation by Aromatization/De aromatization. <i>Accounts of Chemical Research</i> , 2015, 48, 1979-1994.	7.6	521
218	Diamine-Alkalized Reduced Graphene Oxide: Immobilization of Sub-2 nm Palladium Nanoparticles and Optimization of Catalytic Activity for Dehydrogenation of Formic Acid. <i>ACS Catalysis</i> , 2015, 5, 5141-5144.	5.5	166
219	AgPd nanoparticles supported on zeolitic imidazolate framework derived N-doped porous carbon as an efficient catalyst for formic acid dehydrogenation. <i>RSC Advances</i> , 2015, 5, 39878-39883.	1.7	50

#	ARTICLE	IF	CITATIONS
220	Amine grafted silica supported CrAuPd alloy nanoparticles: superb heterogeneous catalysts for the room temperature dehydrogenation of formic acid. <i>Chemical Communications</i> , 2015, 51, 11417-11420.	2.2	79
221	Advances in Ruthenium Catalysed Hydrogen Release from C1 Storage Materials. <i>Recyclable Catalysis</i> , 2015, 2, .	0.1	1
222	Nickel-catalyzed asymmetric transfer hydrogenation of conjugated olefins. <i>Chemical Communications</i> , 2015, 51, 12115-12117.	2.2	77
223	First-principles study of hydrogen diffusion in transition metal palladium. <i>Modern Physics Letters B</i> , 2015, 29, 1550064.	1.0	2
224	Iron-Catalyzed Reduction and Hydroelementation Reactions. <i>Topics in Organometallic Chemistry</i> , 2015, , 173-216.	0.7	25
225	High-quality hydrogen generated from formic acid triggered by in situ prepared Pd/C catalyst for fuel cells. <i>Catalysis Science and Technology</i> , 2015, 5, 2581-2584.	2.1	31
226	Flotation behavior of four C18 hydroxamic acids as collectors of rhodochrosite. <i>Minerals Engineering</i> , 2015, 78, 15-20.	1.8	33
227	Efficient H ₂ production from formic acid by a supported iron catalyst on silica. <i>Applied Catalysis A: General</i> , 2015, 498, 176-184.	2.2	27
228	Metal-free dehydrogenation of formic acid to H ₂ and CO ₂ using boron-based catalysts. <i>Chemical Science</i> , 2015, 6, 2938-2942.	3.7	60
229	Synthesis of Formic Acid from Monosaccharides Using Calcined Mg-Al Hydrotalcite as Reusable Catalyst in the Presence of Aqueous Hydrogen Peroxide. <i>Organic Process Research and Development</i> , 2015, 19, 449-453.	1.3	23
230	Alkane C-H Functionalization and Oxidation with Molecular Oxygen. <i>Inorganic Chemistry</i> , 2015, 54, 5043-5052.	1.9	87
231	Transfer Hydrogenation of Ethyl Levulinate to β -valerolactone Catalyzed by Iron Complexes. <i>Chinese Journal of Chemistry</i> , 2015, 33, 405-408.	2.6	31
232	Photochemical Formic Acid Dehydrogenation by Iridium Complexes: Understanding Mechanism and Overcoming Deactivation. <i>ACS Catalysis</i> , 2015, 5, 6320-6327.	5.5	48
233	Screening Lewis Pair Moieties for Catalytic Hydrogenation of CO ₂ in Functionalized UiO-66. <i>ACS Catalysis</i> , 2015, 5, 6219-6229.	5.5	80
234	Functionalized Ruthenium-Phosphine Metal-Organic Framework for Continuous Vapor-Phase Dehydrogenation of Formic Acid. <i>ACS Catalysis</i> , 2015, 5, 7099-7103.	5.5	45
235	Direct Hydrogenation of Carbon Dioxide by an Artificial Reductase Obtained by Substituting Rhodium for Zinc in the Carbonic Anhydrase Catalytic Center. A Mechanistic Study. <i>ACS Catalysis</i> , 2015, 5, 5397-5409.	5.5	22
236	Conversion of levulinic acid into β -valerolactone using Fe ₃ (CO) ₁₂ : mimicking a biorefinery setting by exploiting crude liquors from biomass acid hydrolysis. <i>Chemical Communications</i> , 2015, 51, 14199-14202.	2.2	58
237	Theoretical Investigation of a Parallel Catalytic Cycle in CO ₂ Hydrogenation by (PNP)IrH ₃ . <i>Organometallics</i> , 2015, 34, 4932-4940.	1.1	38

#	ARTICLE	IF	CITATIONS
238	One-Pot Defunctionalization of Lignin-Derived Compounds by Dual-Functional Pd ₅₀ Ag ₅₀ /Fe ₃ O ₄ /N-rGO Catalyst. ACS Catalysis, 2015, 5, 6964-6972.	5.5	62
239	CeO _x -modified RhNi nanoparticles grown on rGO as highly efficient catalysts for complete hydrogen generation from hydrazine borane and hydrazine. Journal of Materials Chemistry A, 2015, 3, 23520-23529.	5.2	125
240	Mechanistic studies on the pH-controllable interconversion between hydrogen and formic acid in water: DFT insights. New Journal of Chemistry, 2015, 39, 8060-8072.	1.4	5
241	Immobilizing Extremely Catalytically Active Palladium Nanoparticles to Carbon Nanospheres: A Weakly-Capping Growth Approach. Journal of the American Chemical Society, 2015, 137, 11743-11748.	6.6	215
242	Highly Robust Hydrogen Generation by Bioinspired Ir Complexes for Dehydrogenation of Formic Acid in Water: Experimental and Theoretical Mechanistic Investigations at Different pH. ACS Catalysis, 2015, 5, 5496-5504.	5.5	134
243	Activity studies of vanadium, iron, carbon and mixed oxides based catalysts for the oxidative dehydrogenation of ethylbenzene to styrene: a review. Catalysis Science and Technology, 2015, 5, 5062-5076.	2.1	43
244	MnO _x -Promoted PdAg Alloy Nanoparticles for the Additive-Free Dehydrogenation of Formic Acid at Room Temperature. ACS Catalysis, 2015, 5, 6099-6110.	5.5	120
245	CO ₂ Hydrogenation to Formate and Methanol as an Alternative to Photo- and Electrochemical CO ₂ Reduction. Chemical Reviews, 2015, 115, 12936-12973.	23.0	1,244
246	Desulfovibrio vulgaris Growth Coupled to Formate-Driven H ₂ Production. Environmental Science & Technology, 2015, 49, 14655-14662.	4.6	33
247	Catalytic hydrogen production from paraformaldehyde and water using an organoiridium complex. Chemical Communications, 2015, 51, 1670-1672.	2.2	45
248	Fate of methanol under one-pot artificial photosynthesis condition with metal-loaded TiO ₂ as photocatalysts. Catalysis Today, 2015, 243, 235-250.	2.2	11
249	Co-catalytic enhancement of H ₂ production by SiO ₂ nanoparticles. Catalysis Today, 2015, 242, 146-152.	2.2	18
250	Liquid organic and inorganic chemical hydrides for high-capacity hydrogen storage. Energy and Environmental Science, 2015, 8, 478-512.	15.6	673
251	Catalysis by Aluminum(III) Complexes of Nonâ€œInnocent Ligands. Chemistry - A European Journal, 2015, 21, 2734-2742.	1.7	96
252	Synthesis of high-value organic acids from sugars promoted by hydrothermally loaded Cu oxide species on magnesia. Applied Catalysis B: Environmental, 2015, 162, 1-10.	10.8	54
253	Reductive functionalization of CO ₂ with amines: an entry to formamide, formamidine and methylamine derivatives. Green Chemistry, 2015, 17, 157-168.	4.6	339
254	Conversion of wheat straw into formic acid in NaVO ₃ â€œH ₂ SO ₄ aqueous solution with molecular oxygen. Green Chemistry, 2015, 17, 453-459.	4.6	71
255	A computational study on the hydrogenation of CO ₂ catalyzed by a tetraphos-ligated cobalt complex: monohydride vs. dihydride. Catalysis Science and Technology, 2015, 5, 1006-1013.	2.1	23

#	ARTICLE	IF	CITATIONS
256	Dehydrogenation of formic acid by Ir ^{III} -bisMETAMORPhos complexes: experimental and computational insight into the role of a cooperative ligand. <i>Chemical Science</i> , 2015, 6, 1027-1034.	3.7	75
257	The relationship between oxidation and hydrolysis in the conversion of cellulose in NaVO ₃ ·H ₂ SO ₄ aqueous solution with O ₂ . <i>Green Chemistry</i> , 2015, 17, 335-342.	4.6	70
258	Pd@C ₃ N ₄ nanocatalyst for highly efficient hydrogen storage system based on potassium bicarbonate/formate. <i>AIChE Journal</i> , 2016, 62, 2410-2418.	1.8	48
259	Selective Hydrogen Generation from Formic Acid with Well-Defined Complexes of Ruthenium and Phosphorus-Nitrogen PN ³ -Pincer Ligand. <i>Chemistry - an Asian Journal</i> , 2016, 11, 1357-1360.	1.7	94
260	Iodide-Promoted Dehydrogenation of Formic Acid on a Rhodium Complex. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 490-496.	1.0	22
261	Rechargeable Hydrogen Storage System Based on the Dehydrogenative Coupling of Ethylenediamine with Ethanol. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 1061-1064.	7.2	94
262	Using CS ₂ to Probe the Mechanistic Details of Decarboxylation of Bis(phosphinite)-Ligated Nickel Pincer Formate Complexes. <i>Organometallics</i> , 2016, 35, 4077-4082.	1.1	28
263	N-vinyl pyrrolidone promoted aqueous-phase dehydrogenation of formic acid over PVP-stabilized Ru nanoclusters. <i>Science China Chemistry</i> , 2016, 59, 1342-1347.	4.2	7
264	Bicarbonate Hydrogenation Catalyzed by Iron: How the Choice of Solvent Can Reverse the Reaction. <i>ACS Catalysis</i> , 2016, 6, 2923-2929.	5.5	29
265	Iron complexes with nitrogen bidentate ligands as green catalysts for alcohol oxidation. <i>Journal of Molecular Catalysis A</i> , 2016, 421, 189-195.	4.8	24
266	Selective oxidation of glycerol to formic acid catalyzed by iron salts. <i>Catalysis Communications</i> , 2016, 84, 1-4.	1.6	49
267	Highly efficient dehydrogenation of formic acid in aqueous solution catalysed by an easily available water-soluble iridium(III) dihydride. <i>Dalton Transactions</i> , 2016, 45, 14516-14519.	1.6	50
268	Efficient hydrogen generation from formic acid using AgPd nanoparticles immobilized on carbon nitride-functionalized SBA-15. <i>RSC Advances</i> , 2016, 6, 46908-46914.	1.7	25
269	Recent progress and innovation in carbon capture and storage using bioinspired materials. <i>Applied Energy</i> , 2016, 172, 383-397.	5.1	28
270	Formic acid as a hydrogen storage material – development of homogeneous catalysts for selective hydrogen release. <i>Chemical Society Reviews</i> , 2016, 45, 3954-3988.	18.7	660
271	Triphosphine Ligands: Coordination Chemistry and Recent Catalytic Applications. <i>Structure and Bonding</i> , 2016, , 31-61.	1.0	7
272	Generation of Hydrogen from Water: A Pd-Catalyzed Reduction of Water Using Diboron Reagent at Ambient Conditions. <i>Organic Letters</i> , 2016, 18, 5062-5065.	2.4	77
273	Gold supported on zirconia polymorphs for hydrogen generation from formic acid in base-free aqueous medium. <i>Journal of Power Sources</i> , 2016, 328, 463-471.	4.0	56

#	ARTICLE	IF	CITATIONS
274	Promoted hydrogen generation from formic acid with amines using Au/ZrO ₂ catalyst. International Journal of Hydrogen Energy, 2016, 41, 21193-21202.	3.8	40
275	Chemoselective transfer hydrogenation to nitroarenes mediated by oxygen-implanted MoS ₂ . Chinese Journal of Catalysis, 2016, 37, 1569-1577.	6.9	19
276	Iridium-Catalyzed Continuous Hydrogen Generation from Formic Acid and Its Subsequent Utilization in a Fuel Cell: Toward a Carbon Neutral Chemical Energy Storage. ACS Catalysis, 2016, 6, 7475-7484.	5.5	75
277	Controlling catalytic dehydrogenation of formic acid over low-cost transition metal-substituted AuPd nanoparticles immobilized by functionalized metal-organic frameworks at room temperature. Journal of Materials Chemistry A, 2016, 4, 16645-16652.	5.2	49
278	New Feedstocks and Chemistry for Lower CO ₂ -Footprint: Today, Tomorrow, and in the Future. ChemBioEng Reviews, 2016, 3, 204-218.	2.6	3
279	Selective Formic Acid Dehydrogenation Catalyzed by Fe-PNP Pincer Complexes Based on the 2,6-Diaminopyridine Scaffold. Organometallics, 2016, 35, 3344-3349.	1.1	91
280	Dehydrogenation of Formic Acid at Room Temperature: Boosting Palladium Nanoparticle Efficiency by Coupling with Pyridinic-Nitrogen-Doped Carbon. Angewandte Chemie, 2016, 128, 12028-12032.	1.6	42
281	Mechanistic Insights and Computational Design of Transition-Metal Catalysts for Hydrogenation and Dehydrogenation Reactions. Chemical Record, 2016, 16, 2364-2378.	2.9	23
282	Activating Pd nanoparticles on sol-gel prepared porous g-C ₃ N ₄ /SiO ₂ via enlarging the Schottky barrier for efficient dehydrogenation of formic acid. Inorganic Chemistry Frontiers, 2016, 3, 1124-1129.	3.0	24
283	Direct Catalytic Transformation of Biomass Derivatives into Biofuel Component γ -Valerolactone with Magnetic Nickel-Zirconium Nanoparticles. ChemPlusChem, 2016, 81, 135-142.	1.3	52
284	Experimental and computational studies of formic acid dehydrogenation over PdAu: influence of ensemble and ligand effects on catalysis. Journal of Materials Chemistry A, 2016, 4, 14141-14147.	5.2	38
285	Carbon Dioxide to Methanol: The Aqueous Catalytic Way at Room Temperature. Chemistry - A European Journal, 2016, 22, 15605-15608.	1.7	94
286	A RhNiP/rGO hybrid for efficient catalytic hydrogen generation from an alkaline solution of hydrazine. Journal of Materials Chemistry A, 2016, 4, 14572-14576.	5.2	36
287	Dehydrogenation of Formic Acid at Room Temperature: Boosting Palladium Nanoparticle Efficiency by Coupling with Pyridinic-Nitrogen-Doped Carbon. Angewandte Chemie - International Edition, 2016, 55, 11849-11853.	7.2	284
288	Activation of CO ₂ , CS ₂ , and Dehydrogenation of Formic Acid Catalyzed by Iron(II) Hydride Complexes. European Journal of Inorganic Chemistry, 2016, 2016, 5205-5214.	1.0	17
289	A formic acid hydrogen generator using Pd/C ₃ N ₄ catalyst for mobile proton exchange membrane fuel cell systems. Energy, 2016, 112, 679-685.	4.5	23
290	Development of an Iridium-Based Catalyst for High-Pressure Evolution of Hydrogen from Formic Acid. ChemSusChem, 2016, 9, 2749-2753.	3.6	73
291	Gold-containing metal nanoparticles for catalytic hydrogen generation from liquid chemical hydrides. Chinese Journal of Catalysis, 2016, 37, 1594-1599.	6.9	31

#	ARTICLE	IF	CITATIONS
292	Effective Pincer Cobalt Precatalysts for Lewis Acid Assisted CO ₂ Hydrogenation. <i>Inorganic Chemistry</i> , 2016, 55, 8225-8233.	1.9	124
293	Complexes of the tripodal phosphine ligands PhSi(XPPh) ₂ (X = Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 CO ₂ . <i>Dalton Transactions</i> , 2016, 45, 14774-14788.	1.6	40
294	New Class of Hydrido Iron(II) Compounds with <i>cis</i> -Reactive Sites: Combination of Iron and Diphosphinodithio Ligand. <i>Chemistry - an Asian Journal</i> , 2016, 11, 2271-2277.	1.7	10
295	Hydrogen carriers. <i>Nature Reviews Materials</i> , 2016, 1, .	23.3	602
296	A prolific catalyst for dehydrogenation of neat formic acid. <i>Nature Communications</i> , 2016, 7, 11308.	5.8	140
297	Mechanism of Metastable W ^{1/4} stite Formation in the Reduction Process of Iron Oxide below 570 °C. <i>Materials Transactions</i> , 2016, 57, 1660-1663.	0.4	10
298	Rechargeable Hydrogen Storage System Based on the Dehydrogenative Coupling of Ethylenediamine with Ethanol. <i>Angewandte Chemie</i> , 2016, 128, 1073-1076.	1.6	24
299	Recyclable Earth-Abundant Metal Nanoparticle Catalysts for Selective Transfer Hydrogenation of Levulinic Acid to Produce <i>trans</i> -Valerolactone. <i>ChemSusChem</i> , 2016, 9, 181-185.	3.6	33
300	Electron transfer pathways of formate-driven H ₂ production in <i>Desulfovibrio</i> . <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 8135-8146.	1.7	25
301	Nickel-catalyzed release of H ₂ from formic acid and a new method for the synthesis of zerovalent Ni(PMe) ₃ (PMe) ₄ . <i>Dalton Transactions</i> , 2016, 45, 14645-14650.	1.6	40
302	Electronically modified Pd catalysts supported on N-doped carbon for the dehydrogenation of formic acid. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 15453-15461.	3.8	60
303	A pH-differential dual-electrolyte microfluidic electrochemical cells for CO ₂ utilization. <i>Renewable Energy</i> , 2016, 95, 277-285.	4.3	49
304	DFT Study on the Mechanism of Formic Acid Decomposition by a Well-Defined Bifunctional Cyclometalated Iridium(III) Catalyst: Self-Assisted Concerted Dehydrogenation via Long-Range Intermolecular Hydrogen Migration. <i>ACS Catalysis</i> , 2016, 6, 4746-4754.	5.5	41
305	1,2-Addition of Formic or Oxalic Acid to ^η -N{CH ₂ CH ₂ (PiPr) ₂ }-Supported Mn(I) Dicarbonyl Complexes and the Manganese-Mediated Decomposition of Formic Acid. <i>Organometallics</i> , 2016, 35, 2049-2052.	1.1	90
306	An active, stable and recyclable Ru(<i>η</i> -tetrakisphosphine)-based catalytic system for hydrogen production by selective formic acid dehydrogenation. <i>Catalysis Science and Technology</i> , 2016, 6, 6504-6512.	2.1	35
307	Agglomerated Ag-Pd catalyst with performance for hydrogen generation from formic acid at room temperature. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 951-958.	3.8	54
308	Quantitative aqueous phase formic acid dehydrogenation using iron(II) based catalysts. <i>Journal of Catalysis</i> , 2016, 343, 62-67.	3.1	46
309	Exceptional size-dependent catalytic activity enhancement in the room-temperature hydrogen generation from formic acid over bimetallic nanoparticles supported by porous carbon. <i>Journal of Materials Chemistry A</i> , 2016, 4, 1887-1894.	5.2	64

#	ARTICLE	IF	CITATIONS
310	Simple Continuous High-Pressure Hydrogen Production and Separation System from Formic Acid under Mild Temperatures. <i>ChemCatChem</i> , 2016, 8, 886-890.	1.8	69
311	Highly efficient hydrogen generation from formic acid using a reduced graphene oxide-supported AuPd nanoparticle catalyst. <i>Chemical Communications</i> , 2016, 52, 4171-4174.	2.2	120
312	Theoretical investigation on the ruthenium catalyzed dehydrogenation of formic acid and ligand effect. <i>Applied Catalysis A: General</i> , 2016, 515, 101-107.	2.2	10
313	Direction to practical production of hydrogen by formic acid dehydrogenation with Cp*Ir complexes bearing imidazoline ligands. <i>Catalysis Science and Technology</i> , 2016, 6, 988-992.	2.1	69
314	Hydrogen generation at ambient conditions: AgPd bimetal supported on metal-organic framework derived porous carbon as an efficient synergistic catalyst. <i>Catalysis Communications</i> , 2016, 78, 17-21.	1.6	48
315	Synthesis, structure and electrochemical behavior of new R _{PONOP} (R = <i>i</i> -Bu, <i>i</i> Pr) pincer complexes of Fe ²⁺ , Co ²⁺ , Ni ²⁺ , and Zn ²⁺ ions. <i>Comptes Rendus Chimie</i> , 2016, 19, 57-70.	0.2	8
316	Nickel-Catalyzed Regio- and Stereoselective Hydrocarboxylation of Alkynes with Formic Acid through Catalytic CO Recycling. <i>ACS Catalysis</i> , 2016, 6, 2501-2505.	5.5	63
317	Matthias Beller is the Fifth ACS Catalysis Lectureship Winner. <i>ACS Catalysis</i> , 2016, 6, 2126-2126.	5.5	0
318	Iron-catalyzed hydrogenation and dehydrogenation reactions with relevance to reversible hydrogen storage applications. <i>Recyclable Catalysis</i> , 2016, 2, .	0.1	7
319	Visible light mediated upgrading of biomass to biofuel. <i>Green Chemistry</i> , 2016, 18, 1327-1331.	4.6	63
320	Reversible cyclometalation at Rh ^I as a motif for metal-ligand bifunctional bond activation and base-free formic acid dehydrogenation. <i>Catalysis Science and Technology</i> , 2016, 6, 1320-1327.	2.1	40
321	Novel AgPd hollow spheres anchored on graphene as an efficient catalyst for dehydrogenation of formic acid at room temperature. <i>Journal of Materials Chemistry A</i> , 2016, 4, 657-666.	5.2	75
322	Hydrogenation of CO ₂ to formic acid with iridium(III)(bisMETAMORPhos)(hydride): the role of a dormant fac-Ir(III)(trihydride) and an active trans-Ir(III)(dihydride) species. <i>Catalysis Science and Technology</i> , 2016, 6, 404-408.	2.1	39
323	Hydrogen energy future with formic acid: a renewable chemical hydrogen storage system. <i>Catalysis Science and Technology</i> , 2016, 6, 12-40.	2.1	433
324	PdAu-MnO nanoparticles supported on amine-functionalized SiO ₂ for the room temperature dehydrogenation of formic acid in the absence of additives. <i>Applied Catalysis B: Environmental</i> , 2016, 180, 586-595.	10.8	121
325	CO ₂ as a hydrogen vector transition metal diamine catalysts for selective HCOOH dehydrogenation. <i>Dalton Transactions</i> , 2017, 46, 1670-1676.	1.6	36
326	Reactivity of Cyclopentadienyl Molybdenum Compounds towards Formic Acid: Structural Characterization of CpMo(PMe ₃)(CO) ₂ H, CpMo(PMe ₃) ₂ (CO)H, [CpMo(η ¹ -O)(η ¹ -O) ₂ CH] ₂ , and [Cp*Mo(η ¹ -O)(η ¹ -O) ₂ CH] ₂ . <i>Inorganic Chemistry</i> , 2017, 56, 1511-1523.	1.9	8
327	Heterogeneous cobalt catalysts for selective oxygenation of alcohols to aldehydes, esters and nitriles. <i>RSC Advances</i> , 2017, 7, 1498-1503.	1.7	36

#	ARTICLE	IF	CITATIONS
328	Selective Hydrogenation of Nitriles to Primary Amines by using a Cobalt Phosphine Catalyst. <i>ChemSusChem</i> , 2017, 10, 842-846.	3.6	90
329	Boosting Hydrogen Evolution Activities by Strong Interfacial Electronic Interaction in ZnO@Bi(NO ₃) ₃ Core-Shell Structures. <i>Journal of Physical Chemistry C</i> , 2017, 121, 4343-4351.	1.5	16
330	La ₂ O ₃ -modified highly dispersed AuPd alloy nanoparticles and their superior catalysis on the dehydrogenation of formic acid. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 9353-9360.	3.8	21
331	A General and Highly Selective Cobalt-Catalyzed Hydrogenation of N-Heteroarenes under Mild Reaction Conditions. <i>Angewandte Chemie</i> , 2017, 129, 3264-3268.	1.6	54
332	Tandem Nitrogen Functionalization of Porous Carbon: Toward Immobilizing Highly Active Palladium Nanoclusters for Dehydrogenation of Formic Acid. <i>ACS Catalysis</i> , 2017, 7, 2720-2724.	5.5	175
333	A Viewpoint on Chemical Reductions of Carbon-Oxygen Bonds in Renewable Feedstocks Including CO ₂ and Biomass. <i>ACS Catalysis</i> , 2017, 7, 2107-2115.	5.5	75
334	A General and Highly Selective Cobalt-Catalyzed Hydrogenation of N-Heteroarenes under Mild Reaction Conditions. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 3216-3220.	7.2	139
335	Atomic layer deposition-SiO ₂ layers protected PdCoNi nanoparticles supported on TiO ₂ nanopowders: Exceptionally stable nanocatalyst for the dehydrogenation of formic acid. <i>Applied Catalysis B: Environmental</i> , 2017, 210, 470-483.	10.8	52
336	Hydrogen generation from methanol reforming under unprecedented mild conditions. <i>Chinese Chemical Letters</i> , 2017, 28, 1353-1357.	4.8	34
337	Additive-Free, Robust H ₂ Production from H ₂ O and DMF by Dehydrogenation Catalyzed by Cu/Cu ₂ O Formed In Situ. <i>Angewandte Chemie</i> , 2017, 129, 8357-8361.	1.6	7
338	Additive-Free, Robust H ₂ Production from H ₂ O and DMF by Dehydrogenation Catalyzed by Cu/Cu ₂ O Formed In Situ. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 8245-8249.	7.2	32
339	Production of H ₂ -free CO by decomposition of formic acid over ZrO ₂ catalysts. <i>Applied Catalysis A: General</i> , 2017, 531, 13-20.	2.2	47
340	Energy Storage as Part of a Secure Energy Supply. <i>ChemBioEng Reviews</i> , 2017, 4, 144-210.	2.6	42
341	CO ₂ reduction or HCO ₂ ⁻ oxidation? Solvent-dependent thermochemistry of a nickel hydride complex. <i>Chemical Communications</i> , 2017, 53, 7405-7408.	2.2	30
342	High-density defects on PdAg nanowire networks as catalytic hot spots for efficient dehydrogenation of formic acid and reduction of nitrate. <i>Nanoscale</i> , 2017, 9, 9305-9309.	2.8	38
343	Highly Efficient Synthesis of Hydrogen Storage Material of Formate from Bicarbonate and Water with General Zn Powder. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 6349-6357.	1.8	14
344	Metal-Nanoparticle-Catalyzed Hydrogen Generation from Formic Acid. <i>Accounts of Chemical Research</i> , 2017, 50, 1449-1458.	7.6	270
345	A Bifunctional Iridium Catalyst Modified for Persistent Hydrogen Generation from Formic Acid: Understanding Deactivation via Cyclometalation of a 1,2-Diphenylethylenediamine Motif. <i>ACS Catalysis</i> , 2017, 7, 4479-4484.	5.5	44

#	ARTICLE	IF	CITATIONS
346	Iron-catalyzed dehydrogenation reactions and their applications in sustainable energy and catalysis. <i>Catalysis Science and Technology</i> , 2017, 7, 3177-3195.	2.1	68
347	One-step water splitting and NaHCO ₃ reduction into hydrogen storage material of formate with Fe as the reductant under hydrothermal conditions. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 17476-17487.	3.8	10
348	Quantification of Thermodynamic Hydricity of Hydride Complexes of Mn, Re, Mo, and W Using the Molecular Electrostatic Potential. <i>Journal of Physical Chemistry A</i> , 2017, 121, 2814-2819.	1.1	12
349	Carbon nitride supported AgPd alloy nanocatalysts for dehydrogenation of formic acid under visible light. <i>Journal of Materials Chemistry A</i> , 2017, 5, 6382-6387.	5.2	52
350	Cobalt-catalysed transfer hydrogenation of quinolines and related heterocycles using formic acid under mild conditions. <i>Catalysis Science and Technology</i> , 2017, 7, 1981-1985.	2.1	46
351	Reversible Hydrogenation of Carbon Dioxide to Formic Acid and Methanol: Lewis Acid Enhancement of Base Metal Catalysts. <i>Accounts of Chemical Research</i> , 2017, 50, 1049-1058.	7.6	207
352	Degradation of lignin in NaVO ₃ -H ₂ SO ₄ aqueous solution with oxygen. <i>Fuel Processing Technology</i> , 2017, 161, 295-303.	3.7	16
353	Visible-light-driven catalytic activity enhancement of Pd in AuPd nanoparticles for hydrogen evolution from formic acid at room temperature. <i>Applied Catalysis B: Environmental</i> , 2017, 204, 497-504.	10.8	63
354	Highly efficient visible-light-driven catalytic hydrogen evolution from ammonia borane using non-precious metal nanoparticles supported by graphitic carbon nitride. <i>Journal of Materials Chemistry A</i> , 2017, 5, 2288-2296.	5.2	66
355	Ruthenium(0) nanoparticles supported on nanohafnia: A highly active and long-lived catalyst in hydrolytic dehydrogenation of ammonia borane. <i>Molecular Catalysis</i> , 2017, 430, 29-35.	1.0	36
356	Formic Acid as a Hydrogen Energy Carrier. <i>ACS Energy Letters</i> , 2017, 2, 188-195.	8.8	596
357	Dehydrogenation of Formic Acid Catalyzed by a Ruthenium Complex with an <i>N,N</i> -Diimine Ligand. <i>Inorganic Chemistry</i> , 2017, 56, 438-445.	1.9	107
358	Production of Liquid Solar Fuels and Their Use in Fuel Cells. <i>Joule</i> , 2017, 1, 689-738.	11.7	149
359	Silylation of O-H bonds by catalytic dehydrogenative and decarboxylative coupling of alcohols with silyl formates. <i>Chemical Communications</i> , 2017, 53, 11697-11700.	2.2	18
360	CeO _x -modified NiFe nanodendrites grown on rGO for efficient catalytic hydrogen generation from alkaline solution of hydrazine. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 27165-27173.	3.8	35
361	Surface-Amine-Implanting Approach for Catalyst Functionalization: Prominently Enhancing Catalytic Hydrogen Generation from Formic Acid. <i>European Journal of Inorganic Chemistry</i> , 2017, 2017, 4808-4813.	1.0	18
362	Ir(III)-PC(sp ³) ₃ P Bifunctional Catalysts for Production of H ₂ by Dehydrogenation of Formic Acid: Experimental and Theoretical Study. <i>ACS Catalysis</i> , 2017, 7, 8139-8146.	5.5	46
363	Iron-Catalyzed Silylation of Alcohols by Transfer Hydrosilylation with Silyl Formates. <i>Synlett</i> , 2017, 28, 2473-2477.	1.0	11

#	ARTICLE	IF	CITATIONS
364	CO ₂ Hydrogenation Catalysts with Deprotonated Picolinamide Ligands. ACS Catalysis, 2017, 7, 6426-6429.	5.5	70
365	Non-Noble Metal Nanoparticles Supported by Postmodified Porous Organic Semiconductors: Highly Efficient Catalysts for Visible-Light-Driven On-Demand H ₂ Evolution from Ammonia Borane. ACS Applied Materials & Interfaces, 2017, 9, 32767-32774.	4.0	30
368	Highly-efficient and autocatalytic reduction of NaHCO ₃ into formate by in situ hydrogen from water splitting with metal/metal oxide redox cycle. Journal of Energy Chemistry, 2017, 26, 881-890.	7.1	8
369	Further Observations on the Mechanism of Formic Acid Decomposition by Homogeneous Ruthenium Catalyst. ChemistrySelect, 2017, 2, 5816-5823.	0.7	15
370	Catalytic Dehydrogenative Coupling of Hydrosilanes with Alcohols for the Production of Hydrogen On-demand: Application of a Silane/Alcohol Pair as a Liquid Organic Hydrogen Carrier. Chemistry - A European Journal, 2017, 23, 10815-10821.	1.7	46
371	Highly efficient hydrogen release from formic acid using a graphitic carbon nitride-supported AgPd nanoparticle catalyst. Applied Surface Science, 2017, 426, 605-611.	3.1	48
372	Efficient and Selective N-Methylation of Nitroarenes under Mild Reaction Conditions. Chemistry - A European Journal, 2017, 23, 13205-13212.	1.7	33
373	Molecular Iridium Complexes in Metal-Organic Frameworks Catalyze CO ₂ Hydrogenation via Concerted Proton and Hydride Transfer. Journal of the American Chemical Society, 2017, 139, 17747-17750.	6.6	135
376	Iron Dihydride Complexes: Synthesis, Reactivity, and Catalytic Applications. Israel Journal of Chemistry, 2017, 57, 1170-1203.	1.0	14
377	Promotion of iridium complex catalysts for HCOOH dehydrogenation by trace oxygen. Kinetics and Catalysis, 2017, 58, 499-505.	0.3	8
378	A Stable Nanocobalt Catalyst with Highly Dispersed CoN _x Active Sites for the Selective Dehydrogenation of Formic Acid. Angewandte Chemie, 2017, 129, 16843-16847.	1.6	33
379	A Stable Nanocobalt Catalyst with Highly Dispersed CoN _x Active Sites for the Selective Dehydrogenation of Formic Acid. Angewandte Chemie - International Edition, 2017, 56, 16616-16620.	7.2	135
380	Hydrogen Storage in Formic Acid: A Comparison of Process Options. Energy & Fuels, 2017, 31, 12603-12611.	2.5	94
381	Formic Acid as a Hydrogen Carrier for Fuel Cells Toward a Sustainable Energy System. Advances in Inorganic Chemistry, 2017, 70, 395-427.	0.4	48
382	Hydrogenation of CO ₂ into formic acid using a palladium catalyst on chitin. New Journal of Chemistry, 2017, 41, 9170-9177.	1.4	40
383	Formation of hydrogen-rich gas via conversion of lignocellulosic biomass and its decomposition products. , 2017, , 345-371.		0
384	Achieving efficient room-temperature catalytic H ₂ evolution from formic acid through atomically controlling the chemical environment of bimetallic nanoparticles immobilized by isorecticular amine-functionalized metal-organic frameworks. Applied Catalysis B: Environmental, 2017, 218, 460-469.	10.8	62
385	Size-dependent catalytic activity over carbon-supported palladium nanoparticles in dehydrogenation of formic acid. Journal of Catalysis, 2017, 352, 371-381.	3.1	132

#	ARTICLE	IF	CITATIONS
386	Surfactant-Free Synthesis of Carbon-Supported Palladium Nanoparticles and Size-Dependent Hydrogen Production from Formic Acid Formate Solution. ACS Applied Materials & Interfaces, 2017, 9, 24678-24687.	4.0	91
387	Photochemical water splitting mediated by a C1 shuttle. Dalton Transactions, 2017, 46, 49-54.	1.6	3
388	Heteroleptic Copper Photosensitizers: Why an Extended π -System Does Not Automatically Lead to Enhanced Hydrogen Production. Chemistry - A European Journal, 2017, 23, 312-319.	1.7	91
389	Synthesis and reactivity of silyl iron hydride via Si H bond activation. Inorganica Chimica Acta, 2017, 455, 112-117.	1.2	3
390	A high performance dual electrolyte microfluidic reactor for the utilization of CO ₂ . Applied Energy, 2017, 194, 549-559.	5.1	63
391	Efficient Hydrogen Storage and Production Using a Catalyst with an Imidazole-Based, Proton-Responsive Ligand. ChemSusChem, 2017, 10, 1071-1075.	3.6	57
392	FeO _x Coating on Pd/C Catalyst by Atomic Layer Deposition Enhances the Catalytic Activity in Dehydrogenation of Formic Acid. Chinese Journal of Chemical Physics, 2017, 30, 319-324.	0.6	3
394	Exploring Promising Catalysts for Chemical Hydrogen Storage in Ammonia Borane: A Density Functional Theory Study. Catalysts, 2017, 7, 140.	1.6	11
395	Dehydrogenation of Formic Acid over a Homogeneous Ru-TPPTS Catalyst: Unwanted CO Production and Its Successful Removal by PROX. Catalysts, 2017, 7, 348.	1.6	13
396	Iridium Catalysts with Diazole-containing Ligands for Hydrogen Generation by Formic Acid Dehydrogenation. Journal of the Japan Petroleum Institute, 2017, 60, 53-62.	0.4	5
397	A solvent-switched <i>in situ</i> confinement approach for immobilizing highly-active ultrafine palladium nanoparticles: boosting catalytic hydrogen evolution. Journal of Materials Chemistry A, 2018, 6, 5544-5549.	5.2	58
398	Carbon Dioxide Capturing for Purifying Hydrogen Generated by Formic Acid Decomposition. ChemistrySelect, 2018, 3, 2487-2491.	0.7	1
399	Formic acid powered reusable autonomous ferrobots for efficient hydrogen generation under ambient conditions. Journal of Materials Chemistry A, 2018, 6, 9209-9219.	5.2	11
400	Hydrogen production, storage, transportation and key challenges with applications: A review. Energy Conversion and Management, 2018, 165, 602-627.	4.4	957
401	Mechanistic Considerations on Homogeneously Catalyzed Formic Acid Dehydrogenation. European Journal of Inorganic Chemistry, 2018, 2018, 2125-2138.	1.0	56
402	Recent Advances in Catalysis with Transition-Metal Pincer Compounds. ChemCatChem, 2018, 10, 3136-3172.	1.8	193
403	Rationalizing the Reactivity of Bimetallic Molecular Catalysts for CO ₂ Hydrogenation. ACS Catalysis, 2018, 8, 4955-4968.	5.5	39
404	Large volume <i>in situ</i> H ₂ production on fixed bed reactor by concentrated formic acid aqueous solution. Fuel, 2018, 217, 106-110.	3.4	8

#	ARTICLE	IF	CITATIONS
405	Pd@PdO Interface as Active Site for HCOOH Selective Dehydrogenation at Ambient Condition. <i>Journal of Physical Chemistry C</i> , 2018, 122, 2081-2088.	1.5	75
406	Novel reduced graphene oxide wrapped-SrTiO ₃ flower-like nanostructure with Ti-C bond for free noble metal decomposition of formic acid to hydrogen. <i>Chemical Engineering Journal</i> , 2018, 334, 1886-1896.	6.6	46
407	Enhanced electron transfer and light absorption on imino polymer capped PdAg nanowire networks for efficient room-temperature dehydrogenation of formic acid. <i>Journal of Materials Chemistry A</i> , 2018, 6, 1979-1984.	5.2	43
408	Thermo-chemical conversion for production of levulinic and formic acids from glucosamine. <i>Fuel Processing Technology</i> , 2018, 172, 115-124.	3.7	31
409	Catalytic oxidation of carbohydrates into organic acids and furan chemicals. <i>Chemical Society Reviews</i> , 2018, 47, 1351-1390.	18.7	440
410	Catalytic Transformation of Cellulose and Its Derivatives into Functionalized Organic Acids. <i>ChemSusChem</i> , 2018, 11, 1995-2028.	3.6	71
411	DFT Study on the Mechanism of Hydrogen Storage Based on the Formate-Bicarbonate Equilibrium Catalyzed by an Ir-NHC Complex: An Elusive Intramolecular C-H Activation. <i>Inorganic Chemistry</i> , 2018, 57, 5903-5914.	1.9	5
412	Streamlined hydrogen production from biomass. <i>Nature Catalysis</i> , 2018, 1, 332-338.	16.1	105
413	Recent progress in hydrogen production from formic acid decomposition. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 7055-7071.	3.8	155
414	Single Pd atom and Pd dimer embedded graphene catalyzed formic acid dehydrogenation: A first-principles study. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 6997-7006.	3.8	36
415	Formic Acid Dehydrogenation: Phosphides Strike Again. <i>Joule</i> , 2018, 2, 379-380.	11.7	4
416	Heterogeneous Catalytic Reactor for Hydrogen Production from Formic Acid and Its Use in Polymer Electrolyte Fuel Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 6635-6643.	3.2	31
417	Hydrogen generation from formic acid decomposition on a highly efficient iridium catalyst bearing a diaminoglyoxime ligand. <i>Green Chemistry</i> , 2018, 20, 1835-1840.	4.6	67
418	Palladium-Catalyzed Selective Generation of CO from Formic Acid for Carbonylation of Alkenes. <i>Journal of the American Chemical Society</i> , 2018, 140, 5217-5223.	6.6	94
419	Mechanistic insights into formic acid dehydrogenation promoted by Cu-amino based systems. <i>Inorganica Chimica Acta</i> , 2018, 470, 290-294.	1.2	10
420	Homogeneous Catalysis for Sustainable Hydrogen Storage in Formic Acid and Alcohols. <i>Chemical Reviews</i> , 2018, 118, 372-433.	23.0	805
421	Metal-Organic Framework Templated Porous Carbon-Metal Oxide/Reduced Graphene Oxide as Superior Support of Bimetallic Nanoparticles for Efficient Hydrogen Generation from Formic Acid. <i>Advanced Energy Materials</i> , 2018, 8, 1701416.	10.2	99
422	Sub 1 nm aggregation-free AuPd nanocatalysts confined inside amino-functionalized organosilica nanotubes for visible-light-driven hydrogen evolution from formaldehyde. <i>Applied Catalysis B: Environmental</i> , 2018, 220, 303-313.	10.8	33

#	ARTICLE	IF	CITATIONS
423	DFT study of CO ₂ hydrogenation catalyzed by a cobalt-based system: an unexpected formate anion-assisted deprotonation mechanism. <i>Catalysis Science and Technology</i> , 2018, 8, 656-666.	2.1	24
424	Remarkably boosting catalytic H ₂ evolution from ammonia borane through the visible-light-driven synergistic electron effect of non-plasmonic noble-metal-free nanoparticles and photoactive metal-organic frameworks. <i>Applied Catalysis B: Environmental</i> , 2018, 225, 424-432.	10.8	43
425	CoBP nanoparticles supported on three-dimensional nitrogen-doped graphene hydrogel and their superior catalysis for hydrogen generation from hydrolysis of ammonia borane. <i>Journal of Alloys and Compounds</i> , 2018, 735, 1271-1276.	2.8	41
426	Mechanistic Studies on NaHCO ₃ Hydrogenation and HCOOH Dehydrogenation Reactions Catalysed by a Fe ^{II} Linear Tetraphosphine Complex. <i>Chemistry - A European Journal</i> , 2018, 24, 5366-5372.	1.7	8
427	Zerovalent Nickel Compounds Supported by 1,2-Bis(diphenylphosphino)benzene: Synthesis, Structures, and Catalytic Properties. <i>Inorganic Chemistry</i> , 2018, 57, 374-391.	1.9	20
428	Recent progress for reversible homogeneous catalytic hydrogen storage in formic acid and in methanol. <i>Coordination Chemistry Reviews</i> , 2018, 373, 317-332.	9.5	173
429	Tandem catalysis induced by hollow PdO: highly efficient H ₂ generation coupled with organic dye degradation via sodium formate reforming. <i>Catalysis Science and Technology</i> , 2018, 8, 6217-6227.	2.1	5
430	A Performance Evaluation of a Microchannel Reactor for the Production of Hydrogen from Formic Acid for Electrochemical Energy Applications. <i>International Journal of Electrochemical Science</i> , 2018, 13, 485-497.	0.5	4
432	3. CO ₂ -based hydrogen storage “ formic acid dehydrogenation. , 2018, , 57-94.		1
433	Structural analysis of transient reaction intermediate in formic acid dehydrogenation catalysis using two-dimensional IR spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 12395-12400.	3.3	17
434	Fast Dehydrogenation of Formic Acid over Palladium Nanoparticles Immobilized in Nitrogen-Doped Hierarchically Porous Carbon. <i>ACS Catalysis</i> , 2018, 8, 12041-12045.	5.5	158
435	Conversion of Cellulose into Formic Acid by Iron(III)-Catalyzed Oxidation with O ₂ in Acidic Aqueous Solutions. <i>ACS Omega</i> , 2018, 3, 14910-14917.	1.6	16
436	A highly efficient Ir-catalyst for the solventless dehydrogenation of formic acid: the key role of an N-heterocyclic olefin. <i>Green Chemistry</i> , 2018, 20, 4875-4879.	4.6	29
437	Electrochemical Reduction of CO ₂ over Heterogeneous Catalysts in Aqueous Solution: Recent Progress and Perspectives. <i>Small Methods</i> , 2019, 3, 1800369.	4.6	168
438	CO ₂ -based hydrogen storage “ formic acid dehydrogenation. <i>Physical Sciences Reviews</i> , 2018, 3, .	0.8	6
439	Heterogeneous amino-functionalized particles boost hydrogen production from Formic Acid by a ruthenium complex. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 21386-21397.	3.8	11
440	Versatile Rh- and Ir-Based Catalysts for CO ₂ Hydrogenation, Formic Acid Dehydrogenation, and Transfer Hydrogenation of Quinolines. <i>Inorganic Chemistry</i> , 2018, 57, 14186-14198.	1.9	36
441	Water soluble new bimetallic catalyst [CuZn(bz) ₃ (bpy) ₂]PF ₆ in hydrogen peroxide mediated oxidation of alcohols to aldehydes/ketones and C-N functional groups. <i>Journal of Organometallic Chemistry</i> , 2018, 878, 48-59.	0.8	7

#	ARTICLE	IF	CITATIONS
442	Catalytic Formic Acid Dehydrogenation and CO ₂ Hydrogenation Using Iron Pincer Complexes with Isonitrile Ligands. <i>Organometallics</i> , 2018, 37, 3846-3853.	1.1	57
443	Liquid Phase Chemical Hydrogen Storage. , 2018, , 363-392.		1
444	Dehydrogenation of Formic Acid Promoted by a Trihydride-Hydroxo-Osmium(IV) Complex: Kinetics and Mechanism. <i>ACS Catalysis</i> , 2018, 8, 11314-11323.	5.5	40
445	Amine-functionalized graphene nanosheet-supported PdAuNi alloy nanoparticles: efficient nanocatalyst for formic acid dehydrogenation. <i>New Journal of Chemistry</i> , 2018, 42, 16103-16114.	1.4	25
446	Metal Nanoparticle-Catalyzed Hydrogen Generation from Liquid Chemical Hydrides. <i>Bulletin of the Chemical Society of Japan</i> , 2018, 91, 1606-1617.	2.0	40
447	Single-Site Ruthenium Pincer Complex Knitted into Porous Organic Polymers for Dehydrogenation of Formic Acid. <i>ChemSusChem</i> , 2018, 11, 3591-3598.	3.6	36
448	Conformational twisting of a formate-bridged diiridium complex enables catalytic formic acid dehydrogenation. <i>Dalton Transactions</i> , 2018, 47, 13559-13564.	1.6	6
449	Three-dimensional nitrogen-doped graphene hydrogel supported Co-CeO _x nanoclusters as efficient catalysts for hydrogen generation from hydrolysis of ammonia borane. <i>Chinese Chemical Letters</i> , 2018, 29, 1671-1674.	4.8	41
450	Photocatalytic hydrogen evolution from formate and aldehyde over molecular iridium complexes stabilized by bipyridine-bridging organosilica nanotubes. <i>Applied Catalysis B: Environmental</i> , 2018, 236, 466-474.	10.8	22
451	Photocatalytic Dehydrogenation of Formic Acid on CdS Nanorods through Ni and Co Redox Mediation under Mild Conditions. <i>ChemSusChem</i> , 2018, 11, 2587-2592.	3.6	44
452	Super Nanotetragonal ZrO ₂ Embedded in Carbon as Efficient Support of PdAg Nanoparticle for Boosting Hydrogen Generation from Formic Acid. <i>Energy Technology</i> , 2018, 6, 2120-2125.	1.8	11
453	Towards Hydrogen Storage through an Efficient Ruthenium-Catalyzed Dehydrogenation of Formic Acid. <i>ChemSusChem</i> , 2018, 11, 2077-2082.	3.6	29
454	Mechanistic Insights into Iridium Catalyzed Disproportionation of Formic Acid to CO ₂ and Methanol: A DFT Study. <i>Organometallics</i> , 2018, 37, 1519-1525.	1.1	17
455	Transfer hydrogenation of carbon dioxide and bicarbonate from glycerol under aqueous conditions. <i>Chemical Communications</i> , 2018, 54, 6184-6187.	2.2	30
456	Metal Pincer Catalysts in Aqueous Media. , 2018, , 273-294.		0
457	Successive C1-C2 bond cleavage: the mechanism of vanadium(v)-catalyzed aerobic oxidation of d-glucose to formic acid in aqueous solution. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 17942-17951.	1.3	23
458	Releasing Hydrogen at High Pressures from Liquid Carriers: Aspects for the H ₂ Delivery to Fueling Stations. <i>Energy & Fuels</i> , 2018, 32, 10008-10015.	2.5	25
459	Highly Efficient Base-Free Dehydrogenation of Formic Acid at Low Temperature. <i>ChemSusChem</i> , 2018, 11, 3092-3095.	3.6	22

#	ARTICLE	IF	CITATIONS
460	Acceleration of CO ₂ insertion into metal hydrides: ligand, Lewis acid, and solvent effects on reaction kinetics. <i>Chemical Science</i> , 2018, 9, 6629-6638.	3.7	53
461	Iridium-based hydride transfer catalysts: from hydrogen storage to fine chemicals. <i>Chemical Communications</i> , 2018, 54, 7711-7724.	2.2	32
462	Continuous Production of Hydrogen from Formic Acid Decomposition Over Heterogeneous Nanoparticle Catalysts: From Batch to Continuous Flow. <i>ACS Catalysis</i> , 2019, 9, 9188-9198.	5.5	47
463	Phosphate-Mediated Immobilization of High-Performance AuPd Nanoparticles for Dehydrogenation of Formic Acid at Room Temperature. <i>Advanced Functional Materials</i> , 2019, 29, 1903341.	7.8	68
464	Environment-Controlled Postsynthetic Modifications of Iron Formate Frameworks. <i>Inorganic Chemistry</i> , 2019, 58, 11773-11781.	1.9	14
465	Immobilization of highly active bimetallic PdAu nanoparticles onto nanocarbons for dehydrogenation of formic acid. <i>Journal of Materials Chemistry A</i> , 2019, 7, 18835-18839.	5.2	45
466	First principles study of structural, electronic and mechanical properties of Rhodium monohydride RhH. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	0
467	Support-dependent rate-determining step of CO ₂ hydrogenation to formic acid on metal oxide supported Pd catalysts. <i>Journal of Catalysis</i> , 2019, 376, 57-67.	3.1	83
468	Scale-up biopolymer-chelated fabrication of cobalt nanoparticles encapsulated in N-enriched graphene shells for biofuel upgrade with formic acid. <i>Green Chemistry</i> , 2019, 21, 4732-4747.	4.6	26
469	CO ₂ -Mediated H ₂ Storage-Release with Nanostructured Catalysts: Recent Progresses, Challenges, and Perspectives. <i>Advanced Energy Materials</i> , 2019, 9, 1901158.	10.2	47
470	Immobilizing palladium nanoparticles on boron-oxygen-functionalized carbon nanospheres towards efficient hydrogen generation from formic acid. <i>Nano Research</i> , 2019, 12, 2966-2970.	5.8	28
471	Base-free hydrogen generation from formaldehyde and water catalyzed by copper nanoparticles embedded on carbon sheets. <i>Catalysis Science and Technology</i> , 2019, 9, 783-788.	2.1	18
472	Enhanced Activity of C ₂ N-Supported Single Co Atom Catalyst by Single Atom Promoter. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 7009-7014.	2.1	35
473	A PdAg-CeO ₂ nanocomposite anchored on mesoporous carbon: a highly efficient catalyst for hydrogen production from formic acid at room temperature. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21438-21446.	5.2	98
474	Hydrogen peroxide as an oxidant in biomass-to-chemical processes of industrial interest. <i>Green Chemistry</i> , 2019, 21, 5753-5780.	4.6	86
475	Palladium Supported on Porous Chitosan-Graphene Oxide Aerogels as Highly Efficient Catalysts for Hydrogen Generation from Formate. <i>Molecules</i> , 2019, 24, 3290.	1.7	19
476	Iridium(I) NHC-phosphine complex-catalyzed hydrogen generation and storage in aqueous formate/bicarbonate solutions using a flow reactor - Effective response to changes in hydrogen demand. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 28527-28532.	3.8	14
477	Effect of the amine group content on catalytic activity and stability of mesoporous silica supported Pd catalysts for additive-free formic acid dehydrogenation at room temperature. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 4737-4744.	3.8	37

#	ARTICLE	IF	CITATIONS
478	Pd ²⁺ -Initiated Formic Acid Decomposition: Plausible Pathways for C-H Activation of Formate. <i>ChemPhysChem</i> , 2019, 20, 1382-1391.	1.0	5
479	Highly active and stable porous polymer heterogenous catalysts for decomposition of formic acid to produce H ₂ . <i>Chinese Journal of Catalysis</i> , 2019, 40, 147-151.	6.9	15
480	Photocatalytic dehydrogenation of formic acid promoted by a superior PdAg@g-C ₃ N ₄ Mott-Schottky heterojunction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2022-2026.	5.2	116
481	Quasi-Catalytic Approach to N-Unprotected Lactams via Transfer Hydro-amination/Cyclization of Biobased Keto Acids. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 10207-10213.	3.2	18
482	Enhancing formic acid dehydrogenation for hydrogen production with the metal/organic interface. <i>Applied Catalysis B: Environmental</i> , 2019, 255, 117776.	10.8	40
483	Solvent effects on high-pressure hydrogen gas generation by dehydrogenation of formic acid using ruthenium complexes. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 28507-28513.	3.8	11
484	Understanding the Individual and Combined Effects of Solvent and Lewis Acid on CO ₂ Insertion into a Metal Hydride. <i>Journal of the American Chemical Society</i> , 2019, 141, 10520-10529.	6.6	40
485	Metal organic framework derived nitrogen-doped carbon anchored palladium nanoparticles for ambient temperature formic acid decomposition. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 28402-28408.	3.8	38
486	Manganese-Mediated Formic Acid Dehydrogenation. <i>Chemistry - A European Journal</i> , 2019, 25, 10557-10560.	1.7	31
487	Effect of iron content on the hydrogen production kinetics of electroless-deposited Co Ni Fe P alloy catalysts from the hydrolysis of sodium borohydride, and a study of its feasibility in a new hydrolysis using magnesium and calcium borohydrides. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 15228-15238.	3.8	17
488	Synergistic Cu ₂ Catalysts for Formic Acid Dehydrogenation. <i>Journal of the American Chemical Society</i> , 2019, 141, 8732-8736.	6.6	48
489	Ethylene glycol as an efficient and reversible liquid-organic hydrogen carrier. <i>Nature Catalysis</i> , 2019, 2, 415-422.	16.1	102
490	Sustainable Recycling of Formic Acid by Bio-Catalytic CO ₂ Capture and Re-Hydrogenation. <i>Journal of Carbon Research</i> , 2019, 5, 22.	1.4	5
491	Highly Efficient Hydrogen Evolution System of Melamine/BH ₃ without Using Any Catalyst. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 7987-7996.	3.2	3
492	Novel NiPt alloy nanoparticle decorated 2D layered g-C ₃ N ₄ nanosheets: a highly efficient catalyst for hydrogen generation from hydrous hydrazine. <i>Journal of Materials Chemistry A</i> , 2019, 7, 8798-8804.	5.2	68
493	Plasmonic AuPd-based Mott-Schottky photocatalyst for synergistically enhanced hydrogen evolution from formic acid and aldehyde. <i>Applied Catalysis B: Environmental</i> , 2019, 252, 24-32.	10.8	72
494	A Precious Catalyst: Rhodium-Catalyzed Formic Acid Dehydrogenation in Water. <i>European Journal of Inorganic Chemistry</i> , 2019, 2019, 2381-2387.	1.0	20
495	Trimetallic nanoparticles: Synthesis, characterization and catalytic degradation of formic acid for hydrogen generation. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 11503-11513.	3.8	34

#	ARTICLE	IF	CITATIONS
496	Developing Bicyclic Cascade Reactions: Ruthenium-catalyzed Hydrogen Generation From Methanol. <i>Chemistry - A European Journal</i> , 2019, 25, 9345-9349.	1.7	15
497	Porous oxygen vacancy-rich V_2O_5 nanosheets as superior semiconducting supports of nonprecious metal nanoparticles for efficient on-demand H_2 evolution from ammonia borane under visible light irradiation. <i>Journal of Materials Chemistry A</i> , 2019, 7, 10543-10551.	5.2	34
498	Cobalt-catalyzed Aqueous Dehydrogenation of Formic Acid. <i>Chemistry - A European Journal</i> , 2019, 25, 8459-8464.	1.7	54
499	One catalyst, multiple processes: ligand effects on chemoselective control in Ru-catalyzed anti-Markovnikov reductive hydration of terminal alkynes. <i>Catalysis Science and Technology</i> , 2019, 9, 2315-2327.	2.1	4
500	Computationally guided design of a new Rh catalyst for selective formic acid dehydrogenation: Validation with caution. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 28421-28429.	3.8	7
501	Interfacing Formate Dehydrogenase with Metal Oxides for the Reversible Electrocatalysis and Solar-driven Reduction of Carbon Dioxide. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 4601-4605.	7.2	115
502	Interfacing Formate Dehydrogenase with Metal Oxides for the Reversible Electrocatalysis and Solar-driven Reduction of Carbon Dioxide. <i>Angewandte Chemie</i> , 2019, 131, 4649-4653.	1.6	34
503	N-formyl-stabilizing quasi-catalytic species afford rapid and selective solvent-free amination of biomass-derived feedstocks. <i>Nature Communications</i> , 2019, 10, 699.	5.8	69
504	Catalytic Dehydrogenation of Formic Acid with Ruthenium-Pincer Complexes: Comparing N-methylated and NH ligands. <i>ChemCatChem</i> , 2019, 11, 1910-1914.	1.8	32
505	Fuelling the hydrogen economy: Scale-up of an integrated formic acid-to-power system. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 28533-28541.	3.8	78
506	General and selective deoxygenation by hydrogen using a reusable earth-abundant metal catalyst. <i>Science Advances</i> , 2019, 5, eaav3680.	4.7	37
507	Two-step catalytic dehydrogenation of formic acid to CO_2 via formaldehyde. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 1534-1543.	3.8	4
508	General synthesis of primary amines via reductive amination employing a reusable nickel catalyst. <i>Nature Catalysis</i> , 2019, 2, 71-77.	16.1	178
509	First-Row Transition Metal (De)Hydrogenation Catalysis Based On Functional Pincer Ligands. <i>Chemical Reviews</i> , 2019, 119, 2681-2751.	23.0	608
510	Dehydrogenation of Formic Acid Catalyzed by Water-soluble Ruthenium Complexes: X-ray Crystal Structure of a Diruthenium Complex. <i>European Journal of Inorganic Chemistry</i> , 2019, 2019, 1046-1053.	1.0	21
511	Metal-Organic Frameworks in Solid-gas Phase Catalysis. <i>ACS Catalysis</i> , 2019, 9, 130-146.	5.5	229
512	Challenges arising from the use of $TiO_2/rGO/Pt$ photocatalysts to produce hydrogen from crude glycerol compared to synthetic glycerol. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 28494-28506.	3.8	27
513	Carbon Dioxide Hydrogenation and Formic Acid Dehydrogenation Catalyzed by Iridium Complexes Bearing Pyridyl-pyrazole Ligands: Effect of an Electron-donating Substituent on the Pyrazole Ring on the Catalytic Activity and Durability. <i>Advanced Synthesis and Catalysis</i> , 2019, 361, 289-296.	2.1	52

#	ARTICLE	IF	CITATIONS
514	Base-Free Dehydrogenation of Aqueous and Neat Formic Acid with Iridium(III) Cp*(dipyridylamine) Catalysts. <i>ChemSusChem</i> , 2019, 12, 179-184.	3.6	45
515	Katalytische reduktive N-Alkylierungen unter Verwendung von CO ₂ und Carbonsäurederivaten: Aktuelle Entwicklungen. <i>Angewandte Chemie</i> , 2019, 131, 12950-12968.	1.6	17
516	Enhanced formic acid dehydrogenation by the synergistic alloying effect of PdCo catalysts supported on graphitic carbon nitride. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 28483-28493.	3.8	46
517	Iron Catalysis in Reduction and Hydrometalation Reactions. <i>Chemical Reviews</i> , 2019, 119, 2550-2610.	23.0	338
518	Core-Shell Engineering of Pd-Ag Bimetallic Catalysts for Efficient Hydrogen Production from Formic Acid Decomposition. <i>ACS Catalysis</i> , 2019, 9, 819-826.	5.5	88
519	Formic Acid Dehydrogenation by Ruthenium Catalyst - Computational and Kinetic Analysis with the Energy Span Model. <i>European Journal of Organic Chemistry</i> , 2019, 2019, 591-597.	1.2	9
520	NiPt nanoparticles supported on CeO ₂ nanospheres for efficient catalytic hydrogen generation from alkaline solution of hydrazine. <i>Chinese Chemical Letters</i> , 2019, 30, 634-637.	4.8	41
521	Hydrogen Production via Efficient Formic Acid Decomposition: Engineering the Surface Structure of Pd-Based Alloy Catalysts by Design. <i>ACS Catalysis</i> , 2019, 9, 781-790.	5.5	62
522	Catalytic Reductive N-Alkylations Using CO ₂ and Carboxylic Acid Derivatives: Recent Progress and Developments. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 12820-12838.	7.2	101
523	Comment on: Co-catalytic enhancement of H ₂ production by SiO ₂ nanoparticles. <i>Catalysis Today</i> , 2020, 353, 216-217.	2.2	0
524	Answer to the comment by Petrou & A.Terzaki on Co-catalytic Enhancement of H ₂ production by SiO ₂ Nanoparticles. <i>Catalysis Today</i> , 2020, 353, 218-219.	2.2	0
525	Surface interaction between Pd and nitrogen derived from hyperbranched polyamide towards highly effective formic acid dehydrogenation. <i>Journal of Energy Chemistry</i> , 2020, 40, 212-216.	7.1	31
526	Mesoporous silica-supported V-substituted heteropoly acid for efficient selective conversion of glycerol to formic acid. <i>Journal of Saudi Chemical Society</i> , 2020, 24, 1-8.	2.4	10
528	Enhanced production of γ -valerolactone from levulinic acid hydrogenation-cyclization over ZrxCe _{1-x} O ₂ based Cu catalysts. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 26445-26457.	3.8	19
529	Cooperative Reactivity in Carbometalated Pincer-Type Complexes Possessing an Appended Functionality. <i>ACS Catalysis</i> , 2020, 10, 1246-1255.	5.5	32
530	A spin-coated TiO _x /Pt nanolayered anodic catalyst for the direct formic acid fuel cells. <i>Arabian Journal of Chemistry</i> , 2020, 13, 4703-4711.	2.3	15
531	An amine-functionalized mesoporous silica-supported PdIr catalyst: boosting room-temperature hydrogen generation from formic acid. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 709-717.	3.0	60
532	1-Hydroxyethylidene-1,1-diphosphonic acid used as pH-dependent switch to depress and activate fluorite flotation I: Depressing behavior and mechanism. <i>Chemical Engineering Science</i> , 2020, 214, 115369.	1.9	61

#	ARTICLE	IF	CITATIONS
533	Theoretical Investigations on the Effect of the Functional Group of Pd@UiO-66 for Formic Acid Dehydrogenation. <i>Journal of Physical Chemistry C</i> , 2020, 124, 23738-23744.	1.5	6
534	The potential of d ⁶ non-noble metal NHC catalysts for carbon dioxide hydrogenation: group and row effects. <i>Catalysis Science and Technology</i> , 2020, 10, 5443-5447.	2.1	15
535	Tuning the Activity and Stability of Platinum Nanoparticles Toward the Catalysis of the Formic Acid Electrooxidation. <i>International Journal of Electrochemical Science</i> , 2020, , 5597-5608.	0.5	6
536	Recent Progress with Pincer Transition Metal Catalysts for Sustainability. <i>Catalysts</i> , 2020, 10, 773.	1.6	71
537	Cooperative Effects of Heterodinuclear Ir ^{III} –M ^{II} Complexes on Catalytic H ₂ Evolution from Formic Acid Dehydrogenation in Water. <i>Inorganic Chemistry</i> , 2020, 59, 11976-11985.	1.9	19
538	Synergistic Effect of Pendant N Moieties for Proton Shuttling in the Dehydrogenation of Formic Acid Catalyzed by Biomimetic Ir ^{III} Complexes. <i>ChemSusChem</i> , 2020, 13, 5015-5022.	3.6	20
539	Zinc Oxide Morphology-Dependent Pd/ZnO Catalysis in Base-Free CO ₂ Hydrogenation into Formic Acid. <i>ChemCatChem</i> , 2020, 12, 5540-5547.	1.8	24
540	Air-mediated construction of O, N-rich carbon: An efficient support of palladium nanoparticles toward catalytic formic acid dehydrogenation and 4-nitrophenol reduction. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 29034-29045.	3.8	19
541	Modulating oxygen coverage of Ti ₃ C ₂ T _x MXenes to boost catalytic activity for HCOOH dehydrogenation. <i>Nature Communications</i> , 2020, 11, 4251.	5.8	81
542	Efficient transfer hydrogenation of carbonate salts from glycerol using water-soluble iridium N-heterocyclic carbene catalysts. <i>Green Chemistry</i> , 2020, 22, 6093-6104.	4.6	29
543	Carbonic Anhydrases: Versatile and Useful Biocatalysts in Chemistry and Biochemistry. <i>Catalysts</i> , 2020, 10, 1008.	1.6	38
544	Catalytic and Atom-Economic Glycosylation using Glycosyl Formates and Cheap Metal Salts. <i>ChemSusChem</i> , 2020, 13, 3166-3171.	3.6	8
545	Manganese(ⁱ) ²⁺ - ⁱ NN complex-catalyzed formic acid dehydrogenation. <i>Catalysis Science and Technology</i> , 2020, 10, 3931-3937.	2.1	19
546	Homogeneous Molecular Iron Catalysts for Direct Photocatalytic Conversion of Formic Acid to Syngas (CO+H ₂). <i>Angewandte Chemie - International Edition</i> , 2020, 59, 14818-14824.	7.2	42
547	Catalytic oxidations by dehydrogenation of alkanes, alcohols and amines with defined (non)-noble metal pincer complexes. <i>Catalysis Science and Technology</i> , 2020, 10, 3825-3842.	2.1	38
548	Activating the Pd-Based catalysts via tailoring reaction interface towards formic acid dehydrogenation. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 17575-17582.	3.8	20
549	Cobalt Single-Atom Catalysts with High Stability for Selective Dehydrogenation of Formic Acid. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 15849-15854.	7.2	156
550	Effect of the Electrodeposition Potential of Platinum on the Catalytic Activity of a Pt/GC Catalyst Toward Formic Acid Electro-Oxidation. <i>International Journal of Electrochemical Science</i> , 2020, , 4005-4014.	0.5	3

#	ARTICLE	IF	CITATIONS
551	Cobalt Single-Atom Catalysts with High Stability for Selective Dehydrogenation of Formic Acid. <i>Angewandte Chemie</i> , 2020, 132, 15983-15988.	1.6	13
552	Double-ligand Fe, Ru catalysts: A novel route for enhanced H ₂ production from Formic Acid. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 17367-17377.	3.8	14
553	Bimetallic Ni-Pt nanoparticles immobilized on mesoporous N-doped carbon as a highly efficient catalyst for complete hydrogen evolution from hydrazine borane. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13694-13701.	5.2	50
554	Immobilized iridium complexes for hydrogen evolution from formic acid dehydrogenation. <i>Sustainable Energy and Fuels</i> , 2020, 4, 2519-2526.	2.5	11
555	Nickel-catalyzed carboxylation of aryl iodides with lithium formate through catalytic CO recycling. <i>Chemical Communications</i> , 2020, 56, 4067-4069.	2.2	13
556	Mechanistic Insight into Bis(amino) Copper Formate Thermochemistry for Conductive Molecular Ink Design. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 33039-33049.	4.0	14
557	An Update on Formic Acid Dehydrogenation by Homogeneous Catalysis. <i>Chemistry - an Asian Journal</i> , 2020, 15, 937-946.	1.7	68
558	Formic Acid Dehydrogenation by a Cyclometalated Ir^{III} -CNN Ruthenium Complex. <i>European Journal of Inorganic Chemistry</i> , 2020, 2020, 1293-1299.	1.0	7
559	From Homogeneous to Heterogenized Molecular Catalysts for H ₂ Production by Formic Acid Dehydrogenation: Mechanistic Aspects, Role of Additives, and Co-Catalysts. <i>Energies</i> , 2020, 13, 733.	1.6	27
560	Facile synthesis of PdAu/C by cold plasma for efficient dehydrogenation of formic acid. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 9624-9634.	3.8	39
561	Crafting Porous Carbon for Immobilizing Pd Nanoparticles with Enhanced Catalytic Activity for Formic Acid Dehydrogenation. <i>ChemNanoMat</i> , 2020, 6, 533-537.	1.5	11
562	Catalytic dehydrogenation of formic acid-triethanolamine mixture using copper nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 4606-4624.	3.8	12
563	Recent advances in liquid-phase chemical hydrogen storage. <i>Energy Storage Materials</i> , 2020, 26, 290-312.	9.5	142
564	Reversible interconversion between methanol-diamine and diamide for hydrogen storage based on manganese catalyzed (de)hydrogenation. <i>Nature Communications</i> , 2020, 11, 591.	5.8	75
565	Anchoring IrPdAu Nanoparticles on NH ₂ -SBA-15 for Fast Hydrogen Production from Formic Acid at Room Temperature. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 8082-8090.	4.0	128
566	Hydrogen production from formic acid catalyzed by a phosphine free manganese complex: investigation and mechanistic insights. <i>Green Chemistry</i> , 2020, 22, 913-920.	4.6	59
567	Metal-Organic Framework-Based Catalysts with Single Metal Sites. <i>Chemical Reviews</i> , 2020, 120, 12089-12174.	23.0	692
568	Boosting visible-light-driven hydrogen evolution from formic acid over AgPd/2D g-C ₃ N ₄ nanosheets Mott-Schottky photocatalyst. <i>Chemical Engineering Journal</i> , 2020, 396, 125229.	6.6	141

#	ARTICLE	IF	CITATIONS
569	Electrons and Hydroxyl Radicals Synergistically Boost the Catalytic Hydrogen Evolution from Ammonia Borane over Single Nickel Phosphides under Visible Light Irradiation. <i>ChemistryOpen</i> , 2020, 9, 366-373.	0.9	5
570	Nitric oxide monooxygenation (NOM) reaction of cobalt-nitrosyl {Co(NO)} ₈ to Coll-nitrito {Coll(NO ₂ ⁺)}: base induced hydrogen gas (H ₂) evolution. <i>Chemical Science</i> , 2020, 11, 5037-5042.	3.7	11
571	Catalytic Oxidation of Biomass to Formic Acid Using O ₂ as an Oxidant. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 16899-16910.	1.8	39
572	The Synthesis of Primary Amines through Reductive Amination Employing an Iron Catalyst. <i>ChemSusChem</i> , 2020, 13, 3110-3114.	3.6	47
573	Heterogeneous iron-containing nanocatalysts – promising systems for selective hydrogenation and hydrogenolysis. <i>Catalysis Science and Technology</i> , 2020, 10, 3160-3174.	2.1	23
574	Synergistic catalysis of Pd–Ni(OH) ₂ hybrid anchored on porous carbon for hydrogen evolution from the dehydrogenation of formic acid. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 12849-12858.	3.8	20
575	Insight into decomposition of formic acid to syngas required for Rh-catalyzed hydroformylation of olefins. <i>Journal of Catalysis</i> , 2021, 394, 406-415.	3.1	14
576	Spongy ball-like copper oxide nanostructure modified by reduced graphene oxide for enhanced photocatalytic hydrogen production. <i>Materials Research Bulletin</i> , 2021, 133, 111026.	2.7	52
577	Formate–Bicarbonate Cycle as a Vehicle for Hydrogen and Energy Storage. <i>ChemSusChem</i> , 2021, 14, 1258-1283.	3.6	31
578	Facile synthesis of agglomerated Ag–Pd bimetallic dendrites with performance for hydrogen generation from formic acid. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 6395-6403.	3.8	15
579	Manganese-Catalyzed Hydroboration of Terminal Olefins and Metal-Dependent Selectivity in Internal Olefin Isomerization–Hydroboration. <i>Inorganic Chemistry</i> , 2021, 60, 494-504.	1.9	17
580	Alkylamine-Crafted Organic Semiconductors with Plasma-Induced Defects as Electron Promoters of CO-Resistant Pd-Based Nanoparticles for Efficient Light-Driven On-Demand H ₂ Generation. <i>ACS Applied Energy Materials</i> , 2021, 4, 704-713.	2.5	8
581	Photochemical reduction of carbon dioxide to formic acid. <i>Green Chemistry</i> , 2021, 23, 2553-2574.	4.6	61
582	Metal-Organic Frameworks for Catalytic Applications. , 2021, , 228-259.		2
583	Total- and semi-bare noble metal nanoparticles@silica core@shell catalysts for hydrogen generation by formic acid decomposition. <i>Emergent Materials</i> , 2021, 4, 483-491.	3.2	6
584	Formic acid dehydrogenation over single atom Pd-deposited carbon nanocones for hydrogen production: a mechanistic DFT study. <i>Molecular Systems Design and Engineering</i> , 2021, 6, 609-626.	1.7	4
585	Additive-Free Formic Acid Dehydrogenation Catalyzed by a Cobalt Complex. <i>Organometallics</i> , 2021, 40, 565-569.	1.1	18
586	Catalysts with single metal atoms for the hydrogen production from formic acid. <i>Catalysis Reviews - Science and Engineering</i> , 2022, 64, 835-874.	5.7	33

#	ARTICLE	IF	CITATIONS
587	Efficient Iridium Catalysts for Formic Acid Dehydrogenation: Investigating the Electronic Effect on the Elementary $\text{I}^2\text{-Hydride}$ Elimination and Hydrogen Formation Steps. <i>Inorganic Chemistry</i> , 2021, 60, 3410-3417.	1.9	16
589	Progress in Catalytic Hydrogen Production from Formic Acid over Supported Metal Complexes. <i>Energies</i> , 2021, 14, 1334.	1.6	25
590	Bioelectrocatalytic Activity of W-Formate Dehydrogenase Covalently Immobilized on Functionalized Gold and Graphite Electrodes. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 11891-11900.	4.0	28
591	Line profile analysis of synchrotron X-ray diffraction data of iron powder with bimodal microstructural profile parameters. <i>Journal of Applied Crystallography</i> , 2021, 54, 498-512.	1.9	3
592	Insights into Formate Oxidation by a Series of Cobalt Piano-Stool Complexes Supported by Bis(phosphino)amine Ligands. <i>Inorganic Chemistry</i> , 2021, 60, 7372-7380.	1.9	3
593	Access to Metal Centers and Fluxional Hydride Coordination Integral for CO_2 Insertion into $[\text{Fe}_3(\text{I}^{1/4}\text{-H})_3]^{3+}$ Clusters. <i>Inorganic Chemistry</i> , 2021, 60, 7228-7239.	1.9	4
595	Robust Hydrogen Production from Additive-Free Formic Acid via Mesoporous Silica-Confined Pd-ZrO ₂ Nanoparticles at Room Temperature. <i>ACS Applied Energy Materials</i> , 2021, 4, 4945-4954.	2.5	24
597	CdS Nanorods Anchored with Crystalline FeP Nanoparticles for Efficient Photocatalytic Formic Acid Dehydrogenation. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 23751-23759.	4.0	35
598	Theoretical study on CO ₂ hydrogenation mediated by Ru-PNP pincer complexes: An implication towards rational catalyst design. <i>Journal of Organometallic Chemistry</i> , 2021, 943, 121842.	0.8	0
599	Formic Acid as a Potential On-board Hydrogen Storage Method: Development of Homogeneous Noble Metal Catalysts for Dehydrogenation Reactions. <i>ChemSusChem</i> , 2021, 14, 2655-2681.	3.6	33
600	Highly Efficient Dehydrogenation of Formic Acid over Binary Palladium-Phosphorous Alloy Nanoclusters on N-Doped Carbon. <i>Inorganic Chemistry</i> , 2021, 60, 10707-10714.	1.9	6
601	Iron-catalysed regioselective thienyl C-H/C-H coupling. <i>Nature Catalysis</i> , 2021, 4, 631-638.	16.1	33
602	NHC-Iridium-Catalyzed Deoxygenative Coupling of Primary Alcohols Producing Alkanes Directly: Synergistic Hydrogenation with Sodium Formate Generated in Situ. <i>ACS Catalysis</i> , 2021, 11, 10796-10801.	5.5	16
603	Utilization of renewable formic acid from lignocellulosic biomass for the selective hydrogenation and/or N-methylation. <i>ChemCatChem</i> , 2021, 13, 4724-4728.	1.8	12
604	Interfacing with Fe-N-C Sites Boosts the Formic Acid Dehydrogenation of Palladium Nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 46749-46755.	4.0	21
605	Impact of Green Cosolvents on the Catalytic Dehydrogenation of Formic Acid: The Case of Iridium Catalysts Bearing NHC-phosphane Ligands. <i>Inorganic Chemistry</i> , 2021, 60, 15497-15508.	1.9	11
606	Toward efficient single-atom catalysts for renewable fuels and chemicals production from biomass and CO ₂ . <i>Applied Catalysis B: Environmental</i> , 2021, 292, 120162.	10.8	114
607	Homogeneous first-row transition metal catalyst for sustainable hydrogen production and organic transformation from methanol, formic acid, and bio-alcohols. <i>Tetrahedron</i> , 2021, 99, 132473.	1.0	9

#	ARTICLE	IF	CITATIONS
608	Cold plasma enhanced preparation of high performance PdRu/C formic acid dehydrogenation catalysts. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 37836-37846.	3.8	8
609	Reversible hydrogenation and dehydrogenation of N-ethylcarbazole over bimetallic Pd-Rh catalyst for hydrogen storage. <i>Chemical Engineering Journal</i> , 2021, 421, 127781.	6.6	40
610	Effects of rare earth metal doping on Au/ReZrO ₂ catalysts for efficient hydrogen generation from formic acid. <i>New Journal of Chemistry</i> , 2021, 45, 5704-5711.	1.4	5
611	A Use-Store-Reuse (USR) Concept in Catalytic HCOOH Dehydrogenation: Case-Study of a Ru-Based Catalytic System for Long-Term USR under Ambient O ₂ . <i>Energies</i> , 2021, 14, 481.	1.6	6
612	Advances on Transition-Metal Catalyzed CO ₂ Hydrogenation. <i>Chinese Journal of Organic Chemistry</i> , 2021, 41, 3914.	0.6	7
613	HCOOH disproportionation to MeOH promoted by molybdenum PNP complexes. <i>Chemical Science</i> , 2021, 12, 13101-13119.	3.7	11
614	Hydrogenation of CO ₂ to methanol catalyzed by a manganese pincer complex: insights into the mechanism and solvent effect. <i>Dalton Transactions</i> , 2021, 50, 7348-7355.	1.6	19
615	Homogeneous Molecular Iron Catalysts for Direct Photocatalytic Conversion of Formic Acid to Syngas (CO+H ₂). <i>Angewandte Chemie</i> , 2020, 132, 14928-14934.	1.6	2
616	Iridium Complexes with Proton-Responsive Azole-Type Ligands as Effective Catalysts for CO ₂ Hydrogenation. <i>ChemSusChem</i> , 2017, 10, 4535-4543.	3.6	41
617	Conversion of Carbon Dioxide into Formic Acid. <i>Environmental Chemistry for A Sustainable World</i> , 2020, , 91-110.	0.3	3
618	Organometallics for Hydrogen Storage Applications. <i>Green Chemistry and Sustainable Technology</i> , 2015, , 469-495.	0.4	3
619	Bifunctional aliphatic PNP pincer catalysts for hydrogenation: Mechanisms and scope. <i>Advances in Inorganic Chemistry</i> , 2019, 73, 323-384.	0.4	13
620	Facile synthesis of controllable graphene-co-shelled reusable Ni/NiO nanoparticles and their application in the synthesis of amines under mild conditions. <i>Green Chemistry</i> , 2020, 22, 7387-7397.	4.6	40
621	Formate Cycle: The Third Way in Green Energy. <i>International Journal of Chemical Engineering and Applications (IJCEA)</i> , 2019, 10, 189-194.	0.3	3
622	Selection of Suitable Micellar Catalyst for 1,10-Phenanthroline Promoted Chromic Acid Oxidation of Formic Acid in Aqueous Media at Room Temperature. <i>Journal of the Korean Chemical Society</i> , 2013, 57, 703-711.	0.2	2
623	Alternative Conceptual Approach to the Design of Bifunctional Catalysts: An Osmium Germylene System for the Dehydrogenation of Formic Acid. <i>Inorganic Chemistry</i> , 2021, 60, 16860-16870.	1.9	17
624	Carbon Dioxide Reduction with Dihydrogen and Silanes at Low-Valent Molybdenum Terphenyl Diphosphine Complexes: Reductant Identity Dictates Mechanism. <i>ACS Catalysis</i> , 2021, 11, 13294-13302.	5.5	4
625	Recent Researches on Hydrogen Generation Reaction Catalyzed by Group 8 Transition-Metal Complex. <i>Bulletin of Japan Society of Coordination Chemistry</i> , 2013, 62, 23-26.	0.1	0

#	ARTICLE	IF	CITATIONS
645	Iridium-Catalyzed Dehydrogenation in a Continuous Flow Reactor for Practical On-Board Hydrogen Generation From Liquid Organic Hydrogen Carriers. <i>ChemSusChem</i> , 2022, 15, .	3.6	11
646	Catalysis in Liquid Organic Hydrogen Storage: Recent Advances, Challenges, and Perspectives. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 6067-6105.	1.8	28
647	Pd-WO heterostructures immobilized by MOFs-derived carbon cage for formic acid dehydrogenation. <i>Applied Catalysis B: Environmental</i> , 2022, 309, 121278.	10.8	59
648	Aluminum-Ligand Cooperative O-H Bond Activation Initiates Catalytic Transfer Hydrogenation. <i>ChemCatChem</i> , 2022, 14, .	1.8	4
649	Dehydrogenase-Functionalized Interfaced Materials in Electroenzymatic and Photoelectroenzymatic CO ₂ Reduction. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 6141-6156.	3.2	7
650	Dehydrogenation of formic acid mediated by a Phosphorus-Nitrogen PN3P-manganese pincer complex: Catalytic performance and mechanistic insights. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 26559-26567.	3.8	3
651	Manganese-catalyzed hydrogenation, dehydrogenation, and hydroelementation reactions. <i>Chemical Society Reviews</i> , 2022, 51, 4386-4464.	18.7	90
652	Synergy between homogeneous and heterogeneous catalysis. <i>Catalysis Science and Technology</i> , 2022, 12, 6623-6649.	2.1	29
654	Distributions of Ni in MCM-41 for the hydrogenation of N-ethylcarbazole. <i>Fuel</i> , 2022, 324, 124405.	3.4	12
655	Modification of Pd Nanoparticles with Lower Work Function Elements for Enhanced Formic Acid Dehydrogenation and Trichloroethylene Dechlorination. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 30735-30745.	4.0	5
656	Iron Dihydride Complex Stabilized by an All-Phosphorus-Based Pincer Ligand and Carbon Monoxide. <i>Inorganic Chemistry</i> , 2022, 61, 11143-11155.	1.9	7
657	Asymmetric Coordination of Single-Atom Co Sites Achieves Efficient Dehydrogenation Catalysis. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	36
658	Integration of plasmonic AgPd alloy nanoparticles with single-layer graphitic carbon nitride as Mott-Schottky junction toward photo-promoted H ₂ evolution. <i>Scientific Reports</i> , 2022, 12, .	1.6	17
659	Exploring the conversion mechanism of formaldehyde to CO ₂ and H ₂ catalyzed by bifunctional ruthenium catalysts: A DFT study. <i>Molecular Catalysis</i> , 2022, 530, 112630.	1.0	0
660	Monitoring of catalytic dehydrogenation of formic acid by a ruthenium (II) complex through manometry. <i>Inorganic Chemistry Communication</i> , 2022, 144, 109898.	1.8	1
661	Formic acid dehydrogenation by [Ru(⁶ -benzene)(L)Cl] catalysts: L = 2-methylquinolin-8-olate and quinolin-8-olate. <i>New Journal of Chemistry</i> , 2022, 46, 15723-15731.	1.4	4
662	<i>In situ</i> formic acid dehydrogenation observation using a UV-vis-diffuse-reflectance spectroscopy system. <i>Chemical Communications</i> , 2022, 58, 11079-11082.	2.2	2
663	Sterically and Electronically Flexible Pyridylidene Amine Dinitrogen Ligands at Palladium: Hemilabile <i>cis</i> / <i>trans</i> Coordination and Application in Dehydrogenation Catalysis. <i>Chemistry - A European Journal</i> , 2022, 28, .	1.7	6

#	ARTICLE	IF	CITATIONS
664	Selective Photocatalytic Dehydrogenation of Formic Acid by an <i>In Situ</i> -Restructured Copper-Postmetalated Metal-Organic Framework under Visible Light. <i>Journal of the American Chemical Society</i> , 2022, 144, 16433-16446.	6.6	26
665	A Low-Coordinate Iridium Complex with a Donor-Flexible <i>O,N</i> -Ligand for Highly Efficient Formic Acid Dehydrogenation. <i>ACS Catalysis</i> , 2022, 12, 12627-12631.	5.5	20
666	Development of functionalized carbon nanofibers with integrated palladium nanoparticles for catalytic hydrogen generation. <i>Results in Chemistry</i> , 2022, 4, 100554.	0.9	0
667	Catalytic reversible (de)hydrogenation to rotate a chemically fueled molecular switch. <i>Angewandte Chemie - International Edition</i> , 0, , .	7.2	2
668	Base-Free Catalytic Hydrogen Production from Formic Acid Mediated by a Cubane-Type Mo_3S_4 Cluster Hydride. <i>Inorganic Chemistry</i> , 2022, 61, 16730-16739.	1.9	2
669	Catalytic Reversible (De)hydrogenation To Rotate a Chemically Fueled Molecular Switch. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	1
670	Interheteromolecular Hyperconjugation Boosts (De)hydrogenation for Reversible H_2 Storage. <i>ChemSusChem</i> , 2023, 16, .	3.6	3
671	Amine-Functionalized Carbon Bowl-Supported $\text{Pd-La}(\text{OH})_3$ for Formic Acid Dehydrogenation. <i>Inorganic Chemistry</i> , 2022, 61, 18102-18111.	1.9	14
672	Advancements and Challenges in Reductive Conversion of Carbon Dioxide via Thermo-/Photocatalysis. <i>Journal of Organic Chemistry</i> , 2023, 88, 4942-4964.	1.7	16
673	Additive-free photocatalyzed Hydrogen production from formic acid aqueous solution on molybdenum carbides. <i>Research on Chemical Intermediates</i> , 0, , .	1.3	0
674	TiO_2 nanoparticle-supported Ni catalyst for the dehydrogenation of hydrazine hydrate. <i>Chemosphere</i> , 2023, 313, 137608.	4.2	4
676	Methyl Effects on the Stereochemistry and Reactivity of PPP-Ligated Iron Hydride Complexes. <i>Inorganic Chemistry</i> , 2023, 62, 967-978.	1.9	1
677	Selective glucose oxidation to organic acids over synthesized bimetallic oxides at low temperatures. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 0, , .	0.8	1
678	Hybrid Phosphine/Amino Acid Ligands Built on Phenyl and Ferrocenyl Platforms: Application in the Suzuki Coupling of <i>o</i> -Dibromobenzene with Fluorophenylboronic Acid. <i>ChemistryOpen</i> , 2023, 12, .	0.9	0
679	Stepwise photoassisted decomposition of carbohydrates to H_2 . <i>Joule</i> , 2023, 7, 333-349.	11.7	11
680	Hydrogen Production from Formic Acid by In Situ Generated Ni/Cds Photocatalytic System under Visible Light Irradiation. <i>ChemSusChem</i> , 2023, 16, .	3.6	4
681	Electro-enzyme coupling systems for selective reduction of CO_2 . <i>Journal of Energy Chemistry</i> , 2023, 80, 140-162.	7.1	10
682	Single Rh_1Co catalyst enabling reversible hydrogenation and dehydrogenation of N-ethylcarbazole for hydrogen storage. <i>Applied Catalysis B: Environmental</i> , 2023, 327, 122453.	10.8	13

#	ARTICLE	IF	CITATIONS
683	Cost Efficiency Analysis of H ₂ Production from Formic Acid by Molecular Catalysts. <i>Energies</i> , 2023, 16, 1723.	1.6	6
684	Metal Ion Substitution in a Pentanuclear Scaffold Provides an Efficient Catalyst for a HCOOH/CO ₂ Cycle. <i>Chemistry Letters</i> , 2023, 52, 211-214.	0.7	1
685	Highly Selective and Practical Iron-Catalyzed Formal Hydrogenation of Epoxides to Primary Alcohols Using Formic Acid. <i>European Journal of Organic Chemistry</i> , 2023, 26, .	1.2	3
686	AuPd Nanocatalysts Supported on Citric Acid-Modified Boron Nitride to Boost Hydrogen Generation from Formic Acid Dehydrogenation. <i>ACS Applied Nano Materials</i> , 2023, 6, 3285-3292.	2.4	3
687	Ruthenium-Catalyzed Transformation of Ethylene Glycol for Selective Hydrogen Gas Production in Water. <i>ACS Sustainable Chemistry and Engineering</i> , 2023, 11, 3999-4008.	3.2	2
688	Photocatalytic hydrogen production from biomass via preferential C−C bond cleavage. <i>Chinese Science Bulletin</i> , 2023, , .	0.4	0
689	Versatile CO ₂ Hydrogenation-Dehydrogenation Catalysis with a Ru-PNP/Ionic Liquid System. <i>Journal of the American Chemical Society</i> , 2023, 145, 5655-5663.	6.6	14
690	Designing a Robust Palladium Catalyst for Formic Acid Dehydrogenation. <i>ACS Catalysis</i> , 2023, 13, 4835-4841.	5.5	10
691	Base-Free Reversible Hydrogen Storage Using a Tethered η^5 -Coordinated-Phenoxy Ruthenium-Dimer Precatalyst. <i>ACS Catalysis</i> , 2023, 13, 5787-5794.	5.5	8
706	Recent Advances of Cp*Ir Complexes for Transfer Hydrogenation: Focus on Formic Acid/Formate as Hydrogen Donors. <i>Organic and Biomolecular Chemistry</i> , 0, , .	1.5	0
713	A Mechanistic Analysis of Dehydrogenation Reactions with First-Row Transition Metal Complexes. <i>Topics in Organometallic Chemistry</i> , 2023, , .	0.7	0
720	Recent progress of heterogeneous catalysts for transfer hydrogenation under the background of carbon neutrality. <i>Nanoscale</i> , 0, , .	2.8	0