Priv Doz Martin H G Prechtl

List of Publications by Year
in descending order

67 papers	3,146 citations	159358 30 h-index	155451 55 g-index
91 all docs	91 docs citations	91 times ranked	3830 citing authors

#	Article	IF	Citations
1	Metal-organic framework (MOF)-derived catalysts for fine chemical production. Coordination Chemistry Reviews, 2020, 416, 213319.	9.5	427
2	Base promoted hydrogenolysis of lignin model compounds and organosolv lignin over metal catalysts in water. Chemical Engineering Science, 2015, 123, 155-163.	1.9	153
3	Selective and mild hydrogen production using water and formaldehyde. Nature Communications, 2014, 5, 3621.	5.8	147
4	Carbon-Carbon Cross Coupling Reactions in Ionic Liquids Catalysed by Palladium Metal Nanoparticles. Molecules, 2010, 15, 3441-3461.	1.7	137
5	Ionic Liquid Surface Composition Controls the Size of Gold Nanoparticles Prepared by Sputtering Deposition. Journal of Physical Chemistry C, 2010, 114, 11764-11768.	1.5	134
6	H/D Exchange at Aromatic and Heteroaromatic Hydrocarbons Using D2O as the Deuterium Source and Ruthenium Dihydrogen Complexes as the Catalyst. Angewandte Chemie - International Edition, 2007, 46, 2269-2272.	7.2	129
7	Nanoscale Ru(0) Particles: Arene Hydrogenation Catalysts in Imidazolium Ionic Liquids. Inorganic Chemistry, 2008, 47, 8995-9001.	1.9	128
8	Future perspectives for formaldehyde: pathways for reductive synthesis and energy storage. Green Chemistry, 2017, 19, 2347-2355.	4.6	115
9	Palladium nanoparticle catalysts in ionic liquids: synthesis, characterisation and selective partial hydrogenation of alkynes to Z-alkenes. Journal of Materials Chemistry, 2011, 21, 3030.	6.7	105
10	Stereoselective iron-catalyzed alkyne hydrogenation in ionic liquids. Chemical Communications, 2014, 50, 2261-2264.	2.2	84
11	Selective conversion of alcohols in water to carboxylic acids by in situ generated ruthenium trans dihydrido carbonyl PNP complexes. Dalton Transactions, 2014, 43, 17248-17254.	1.6	84
12	Imidazolium ionic liquids as promoters and stabilising agents for the preparation of metal(0) nanoparticles by reduction and decomposition of organometallic complexes. Nanoscale, 2010, 2, 2601.	2.8	80
13	Tuneable Hydrogenation of Nitriles into Imines or Amines with a Ruthenium Pincer Complex under Mild Conditions. ChemCatChem, 2015, 7, 1023-1028.	1.8	69
14	Tuning the selectivity of ruthenium nanoscale catalysts with functionalised ionic liquids: Hydrogenation of nitriles. Journal of Molecular Catalysis A, 2009, 313, 74-78.	4.8	67
15	Coupling of Vinylic Tellurides with Alkynes Catalyzed by Palladium Dichloride:Â Evaluation of Synthetic and Mechanistic Details. Organometallics, 2004, 23, 3990-3996.	1.1	64
16	Synthesis and Characterisation of Nonclassical Ruthenium Hydride Complexes Containing Chelating Bidentate and Tridentate Phosphine Ligands. Chemistry - A European Journal, 2007, 13, 1539-1546.	1.7	64
17	On the formation of anisotropic gold nanoparticles by sputtering onto a nitrile functionalised ionic liquid. Physical Chemistry Chemical Physics, 2011, 13, 13552.	1.3	55
18	Selective hydrogenation of N-heterocyclic compounds using Ru nanocatalysts in ionic liquids. Green Chemistry, 2017, 19, 2762-2767.	4.6	55

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19	Decomposition of Formic Acid Catalyzed by a Phosphineâ€Free Ruthenium Complex in a Taskâ€Specific Ionic Liquid. ChemCatChem, 2010, 2, 1265-1270.	1.8	53
20	Hydrogen storage in amine boranes: Ionic liquid supported thermal dehydrogenation of ethylene diamine bisborane. International Journal of Hydrogen Energy, 2013, 38, 3283-3290.	3.8	51
21	Direct coupling of alcohols to form esters and amides with evolution of H2 using in situ formed ruthenium catalysts. Catalysis Science and Technology, 2012, 2, 2039.	2.1	50
22	New insights into the catalytic cleavage of the lignin Î²-O-4 linkage in multifunctional ionic liquid media. Catalysis Science and Technology, 2016, 6, 1882-1891.	2.1	50
23	Application of Chiral Ionic Liquids for Asymmetric Induction in Catalysis. Current Organic Chemistry, 2009, 13, 1259-1277.	0.9	48
24	Selective partial hydrogenation of alkynes to (Z)-alkenes with ionic liquid-doped nickel nanocatalysts at near ambient conditions. Chemical Communications, 2016, 52, 9129-9132.	2.2	47
25	Catalytic Cï¿½H Bond Activation at Nanoscale Lewis Acidic Aluminium Fluorides: H/D Exchange Reactions at Aromatic and Aliphatic Hydrocarbons. Chemistry - A European Journal, 2011, 17, 14385-14388.	1.7	46
26	Bioinduced Roomâ€Temperature Methanol Reforming. Angewandte Chemie - International Edition, 2015, 54, 10308-10312.	7.2	45
27	Ruthenium Dihydrogen Complex for Câ€“H Activation: Catalytic H/D Exchange under Mild Conditions. European Journal of Inorganic Chemistry, 2008, 2008, 3493-3500.	1.0	39
28	Ruthenium Nanoparticles in Ionic Liquids â€“ A Saga. Current Organic Chemistry, 2013, 17, 414-429.	0.9	39
29	Can [M(H)2(H2)(PXP)] Pincer Complexes (M=Fe, Ru, Os; X=N, O, S) Serve as Catalyst Lead Structures for NH3 Synthesis from N2 and H2?. Chemistry - A European Journal, 2007, 13, 6636-6643.	1.7	37
30	Water decontamination with hydrogen production using microwave-formed minute-made ruthenium catalysts. Green Chemistry, 2016, 18, 1469-1474.	4.6	33
31	Challenging Thermodynamics: Hydrogenation of Benzene to 1,3â€Cyclohexadiene by Ru@Pt Nanoparticles. ChemCatChem, 2017, 9, 204-211.	1.8	30
32	Metal oxide and bimetallic nanoparticles in ionic liquids: synthesis and application in multiphase catalysis. Nanotechnology Reviews, 2013, 2, 577-595.	2.6	29
33	Ligand-free copper(<scp>i</scp>) oxide nanoparticle-catalysed amination of aryl halides in ionic liquids. Catalysis Science and Technology, 2014, 4, 102-108.	2.1	29
34	Non-Covalent Interactions in Enantioselective Organocatalysis: Theoretical and Mechanistic Studies of Reactions Mediated by Dual H-Bond Donors, Bifunctional Squaramides, Thioureas and Related Catalysts. Catalysts, 2021, 11, 569.	1.6	29
35	Synthesis and characterisation of ruthenium dihydrogen complexes and their reactivity towards Bâ€“H bonds. Dalton Transactions, 2014, 43, 290-299.	1.6	24
36	Recyclable nanoscale copper(i) catalysts in ionic liquid media for selective decarboxylative Câ€“C bond cleavage. Catalysis Science and Technology, 2013, 3, 992.	2.1	23

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37	Palladium Catalysed Aerobic Dehydrogenation of Cï£¿H Bonds in Cyclohexanones. ChemCatChem, 2012, 4, 326-327.	1.8	21
38	The Role of Ionic Liquids in Hydrogen Storage. Chemistry - A European Journal, 2014, 20, 8934-8941.	1.7	21
39	Rutheniumâ€Catalyzed Methylation of Amines with Paraformaldehyde in Water under Mild Conditions. ChemSusChem, 2016, 9, 2343-2347.	3.6	21
40	De novo synthesis of Cr-embedded MOF-199 and derived porous CuO/CuCr₂O₄ composites for enhanced phenol hydroxylation. Green Chemistry, 2019, 21, 1889-1894.	4.6	21
41	Hydrogen Storage Using Ionic Liquid Media. Current Organic Chemistry, 2013, 17, 220-228.	0.9	20
42	Single step synthesis of metallic nanoparticles using dihydroxyl functionalized ionic liquids as reductive agent. RSC Advances, 2013, 3, 20324.	1.7	19
43	Fast track to nanomaterials: microwave assisted synthesis in ionic liquid media. RSC Advances, 2014, 4, 14149-14156.	1.7	19
44	Amide versus amine ligand paradigm in the direct amination of alcohols with Ru-PNP complexes. Catalysis Science and Technology, 2018, 8, 3969-3976.	2.1	18
45	Nitrile hydrogenation using nickel nanocatalysts in ionic liquids. New Journal of Chemistry, 2017, 41, 9594-9597.	1.4	17
46	Molecular Palladium Precursors for Pd⁰ Nanoparticle Preparation by Microwave Irradiation: Synthesis, Structural Characterization and Catalytic Activity. European Journal of Inorganic Chemistry, 2012, 2012, 6027-6033.	1.0	16
47	Copperâ€Catalyzed Formylation of Amines by using Methanol as the C1 Source. ChemSusChem, 2020, 13, 882-887.	3.6	16
48	Selfâ€Sufficient Formaldehydeâ€toâ€Methanol Conversion by Organometallic Formaldehyde Dismutase Mimic. Chemistry - A European Journal, 2016, 22, 11568-11573.	1.7	15
49	Rutheniumâ€Catalyzed Eâ€Selective Partial Hydrogenation of Alkynes under Transferâ€Hydrogenation Conditions using Paraformaldehyde as Hydrogen Source. ChemCatChem, 2021, 13, 1317-1325.	1.8	15
50	Advancement in Molecular Hydrogen Storage Systems. ChemCatChem, 2011, 3, 1257-1259.	1.8	14
51	Cascade Catalysis Through Bifunctional Lipase Metal Biohybrids for the Synthesis of Enantioenriched Oâ€Heterocycles from Allenes. ChemCatChem, 2022, 14, .	1.8	11
52	Simple, expedient methods for the determination of water and electrolyte contents of cellulose solvent systems. Cellulose, 2006, 13, 581-592.	2.4	10
53	Transfer Hydrogenation Employing Ethylene Diamine Bisborane in Water and Pd- and Ru-Nanoparticles in Ionic Liquids. Molecules, 2015, 20, 17058-17069.	1.7	8
54	Bimetallic RuPd nanoparticles in ionic liquids: selective catalysts for the hydrogenation of aromatic compounds. New Journal of Chemistry, 2021, 45, 98-103.	1.4	8

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55	The Prospecting Shortcut to an Old Molecule: Formaldehyde Synthesis at Low Temperature in Solution. ChemSusChem, 2016, 9, 2905-2907.	3.6	7
56	Chemoenzymatic Hydrogen Production from Methanol through the Interplay of Metal Complexes and Biocatalysts. Chemistry - A European Journal, 2019, 25, 6474-6481.	1.7	7
57	CO2-based hydrogen storage â€“ Hydrogen generation from formaldehyde/water. ChemistrySelect, 2018, 3, .	0.7	5
58	The reductive deaminative conversion of nitriles to alcohols using para-formaldehyde in aqueous solution. Catalysis Science and Technology, 2019, 9, 6092-6101.	2.1	3
59	Methanol-Driven Oxidative Rearrangement of Biogenic Furans â€“ Enzyme Cascades vs. Photobiocatalysis. Frontiers in Chemistry, 2021, 9, 635883.	1.8	2
60	Palladium Nanoscale Catalysts in Ionic Liquids: Coupling and Hydrogenation Reactions. , 2011, , .		1
61	Metal Catalysts Immobilized in Ionic Liquids: A Couple with Opportunities for Fine Chemicals Derived from Biomass. , 2013, , 243-264.		1
62	4. CO2-based hydrogen storage â€“ Hydrogen generation from formaldehyde/water. , 2018, , 95-124.		1
63	Toward electrocatalytic chemoenzymatic hydrogen evolution and beyond. Cell Reports Physical Science, 2021, 2, 100626.	2.8	1
64	Coupling of Vinylic Tellurides with Alkynes Catalyzed by Palladium Dichloride: Evaluation of Synthetic and Mechanistic Details.. ChemInform, 2004, 35, no.	0.1	0
65	Metal Pincer Catalysts in Aqueous Media. , 2018, , 273-294.		0
66	Frontispiece: Chemoenzymatic Hydrogen Production from Methanol through the Interplay of Metal Complexes and Biocatalysts. Chemistry - A European Journal, 2019, 25, .	1.7	0
67	Editorial (Hot Topic: Nanoscale Catalysts as Tools for Synthesis). Current Organic Chemistry, 2013, 17, 325-325.	0.9	0