

Peter Wasserscheid

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457
papers

27,047
citations

79
h-index

152
g-index

505
ext. papers

29,662
ext. citations

6.6
avg, IF

7.32
L-index

#	Paper	IF	Citations
457	Ionic Liquids-New "Solutions" for Transition Metal Catalysis. <i>Angewandte Chemie - International Edition</i> , 2000 , 39, 3772-3789	16.4	4799
456	Ionische Flüssigkeiten [neue Lösungen] für die Übergangsmetallkatalyse. <i>Angewandte Chemie</i> , 2000 , 112, 3926-3945	3.6	561
455	Deep desulfurization of diesel fuel by extraction with ionic liquids. <i>Chemical Communications</i> , 2001 , 2494-5	5.5	496
454	Deep desulfurization of oil refinery streams by extraction with ionic liquids. <i>Green Chemistry</i> , 2004 , 6, 316-322	10	481
453	Liquid Organic Hydrogen Carriers (LOHCs): Toward a Hydrogen-free Hydrogen Economy. <i>Accounts of Chemical Research</i> , 2017 , 50, 74-85	24.3	383
452	Ethylene tetramerization: a new route to produce 1-octene in exceptionally high selectivities. <i>Journal of the American Chemical Society</i> , 2004 , 126, 14712-3	16.4	376
451	Measurement of Activity Coefficients at Infinite Dilution in Ionic Liquids Using the Dilutor Technique. <i>Journal of Chemical & Engineering Data</i> , 2002 , 47, 1411-1417	2.8	372
450	1-n-Butyl-3-methylimidazolium ([bmim]) octylsulfate – an even greener ionic liquid. <i>Green Chemistry</i> , 2002 , 4, 400-404	10	360
449	A future energy supply based on Liquid Organic Hydrogen Carriers (LOHC). <i>Energy and Environmental Science</i> , 2011 , 4, 2767	35.4	316
448	Supported ionic liquids: versatile reaction and separation media. <i>Topics in Catalysis</i> , 2006 , 40, 91-102	2.3	296
447	Supported Ionic Liquid Phase (SILP) Catalysis: An Innovative Concept for Homogeneous Catalysis in Continuous Fixed-Bed Reactors. <i>European Journal of Inorganic Chemistry</i> , 2006 , 2006, 695-706	2.3	291
446	Liquid Organic Hydrogen Carriers as an efficient vector for the transport and storage of renewable energy. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 18118-18132	6.7	285
445	Enzyme catalysis in ionic liquids: lipase catalysed kinetic resolution of 1-phenylethanol with improved enantioselectivity. <i>Chemical Communications</i> , 2001 , 425-426	5.8	285
444	Ionic liquids in chemical engineering. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2010 , 1, 203-30	8.9	256
443	Very stable and highly regioselective supported ionic-liquid-phase (SILP) catalysis: continuous-flow fixed-bed hydroformylation of propene. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 815-9	16.4	252
442	First Cr(III)-SNS complexes and their use as highly efficient catalysts for the trimerization of ethylene to 1-hexene. <i>Journal of the American Chemical Society</i> , 2003 , 125, 5272-3	16.4	248
441	The role of the C2 position in interionic interactions of imidazolium based ionic liquids: a vibrational and NMR spectroscopic study. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 14153-61	3.6	244

440	Towards a molecular understanding of cation-anion interactions--probing the electronic structure of imidazolium ionic liquids by NMR spectroscopy, X-ray photoelectron spectroscopy and theoretical calculations. <i>Chemistry - A European Journal</i> , 2010 , 16, 9018-33	4.8	241
439	Seasonal storage and alternative carriers: A flexible hydrogen supply chain model. <i>Applied Energy</i> , 2017 , 200, 290-302	10.7	231
438	Continuous fixed-bed gas-phase hydroformylation using supported ionic liquid-phase (SILP) Rh catalysts. <i>Journal of Catalysis</i> , 2003 , 219, 452-455	7.3	231
437	Reversible physical absorption of SO ₂ by ionic liquids. <i>Chemical Communications</i> , 2006 , 4027-9	5.8	226
436	Ionic Liquids in Catalysis. <i>Catalysis Letters</i> , 2015 , 145, 380-397	2.8	225
435	Synthesis and properties of ionic liquids derived from the 'chiral pool'. <i>Chemical Communications</i> , 2002 , 200-1	5.8	210
434	Evaluation of industrially applied heat-transfer fluids as liquid organic hydrogen carrier systems. <i>ChemSusChem</i> , 2014 , 7, 229-35	8.3	190
433	Oxidative depolymerization of lignin in ionic liquids. <i>ChemSusChem</i> , 2010 , 3, 719-23	8.3	189
432	Ionic liquids and their heating behaviour during microwave irradiation in a state of the art report and challenge to assessment. <i>Green Chemistry</i> , 2003 , 5, 296-299	10	189
431	Density and surface tension of ionic liquids. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 17025-36	3.4	187
430	Photonic crystal fibres for chemical sensing and photochemistry. <i>Chemical Society Reviews</i> , 2013 , 42, 8629-48	58.5	181
429	Novel Cr-PNP complexes as catalysts for the trimerisation of ethylene. <i>Chemical Communications</i> , 2003 , 334-5	5.8	177
428	Separation of 1-hexene and n-hexane with ionic liquids. <i>Fluid Phase Equilibria</i> , 2006 , 241, 290-299	2.5	173
427	Ionic Phosphine Ligands with Cobaltocenium Backbone: Novel Ligands for the Highly Selective, Biphasic, Rhodium-Catalyzed Hydroformylation of 1-Octene in Ionic Liquids. <i>Organometallics</i> , 2000 , 19, 3818-3823	3.8	172
426	Influence of different substituents on the surface composition of ionic liquids studied using ARXPS. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 2854-64	3.4	166
425	Use of Ionic Liquids to Increase the Yield and Enzyme Stability in the β -Galactosidase Catalysed Synthesis of N-Acetylglucosamine. <i>Organic Process Research and Development</i> , 2002 , 6, 553-557	3.9	166
424	Activation, Tuning, and Immobilization of Homogeneous Catalysts in an Ionic Liquid/Compressed CO Continuous-Flow System. <i>Angewandte Chemie - International Edition</i> , 2001 , 40, 2697-2699	16.4	165
423	Hydrogensulfate and tetrakis(hydrogensulfato)borate ionic liquids: synthesis and catalytic application in highly Brønsted-acidic systems for Friedel-Crafts alkylation. <i>Green Chemistry</i> , 2002 , 4, 134-138	10	162

4 ²²	Influence of different anions on the surface composition of ionic liquids studied using ARXPS. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 8682-8	3.4	158
4 ²¹	Ethylene Trimerization with Mixed-Donor Ligand (N,P,S) Chromium Complexes: Effect of Ligand Structure on Activity and Selectivity. <i>Organometallics</i> , 2005 , 24, 552-556	3.8	157
4 ²⁰	Surface science and model catalysis with ionic liquid-modified materials. <i>Advanced Materials</i> , 2011 , 23, 2571-87	24	154
4 ¹⁹	Nickel(II) Heterocyclic Carbene Complexes as Catalysts for Olefin Dimerization in an Imidazolium Chloroaluminate Ionic Liquid. <i>Organometallics</i> , 2002 , 21, 175-181	3.8	151
4 ¹⁸	The Prospect of Hydrogen Storage Using Liquid Organic Hydrogen Carriers. <i>Energy & Fuels</i> , 2019 , 33, 2778-2796	4.1	149
4 ¹⁷	Selective catalytic conversion of biobased carbohydrates to formic acid using molecular oxygen. <i>Green Chemistry</i> , 2011 , 13, 2759	10	146
4 ¹⁶	Ionic liquids: polar, but weakly coordinating solvents for the first biphasic oligomerisation of ethene to higher α -olefins with cationic Ni complexes. <i>Chemical Communications</i> , 2001 , 1186-1187	5.8	143
4 ¹⁵	Hydrogen Storage Technologies for Future Energy Systems. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2017 , 8, 445-471	8.9	141
4 ¹⁴	Energy storage in residential and commercial buildings via Liquid Organic Hydrogen Carriers (LOHC). <i>Energy and Environmental Science</i> , 2012 , 5, 9044	35.4	141
4 ¹³	Gallium-rich Pd-Ga phases as supported liquid metal catalysts. <i>Nature Chemistry</i> , 2017 , 9, 862-867	17.6	140
4 ¹²	Thermal Conductivity of Ionic Liquids: Measurement and Prediction. <i>International Journal of Thermophysics</i> , 2010 , 31, 2059-2077	2.1	140
4 ¹¹	Selective Trimerization of α -Olefins with Triazacyclohexane Complexes of Chromium as Catalysts. <i>Angewandte Chemie - International Edition</i> , 2000 , 39, 4337-4339	16.4	140
4 ¹⁰	Propene and 1-Octene Hydroformylation with Silica-Supported, Ionic Liquid-Phase (SILP) Rh-Phosphine Catalysts in Continuous Fixed-Bed Mode. <i>Catalysis Letters</i> , 2003 , 90, 149-153	2.8	139
4 ⁰⁹	Cellulose-Based Ionogels for Paper Electronics. <i>Advanced Functional Materials</i> , 2014 , 24, 625-634	15.6	137
4 ⁰⁸	Environmental and health impact assessment of Liquid Organic Hydrogen Carrier (LOHC) systems – challenges and preliminary results. <i>Energy and Environmental Science</i> , 2015 , 8, 1035-1045	35.4	134
4 ⁰⁷	Selective oxidation of complex, water-insoluble biomass to formic acid using additives as reaction accelerators. <i>Energy and Environmental Science</i> , 2012 , 5, 7956	35.4	131
4 ⁰⁶	Insights into the surface composition and enrichment effects of ionic liquids and ionic liquid mixtures. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 1905-15	3.6	127
4 ⁰⁵	Techno-economic analysis for the synthesis of liquid and gaseous fuels based on hydrogen production via electrolysis. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 11457-11464	6.7	126

404	Molecular reorientational dynamics of the neat ionic liquid 1-butyl-3-methylimidazolium hexafluorophosphate by measurement of ¹³ C nuclear magnetic relaxation data. <i>ChemPhysChem</i> , 2003 , 4, 588-94	3.2	123
403	Cationic phosphine ligands with phenylguanidinium modified xanthene moieties—successful concept for highly regioselective, biphasic hydroformylation of oct-1-ene in hexafluorophosphate ionic liquids. <i>Chemical Communications</i> , 2001 , 451-452	5.8	121
402	Physical vapor deposition of [EMIM][Tf2N]: a new approach to the modification of surface properties with ultrathin ionic liquid films. <i>ChemPhysChem</i> , 2008 , 9, 2185-90	3.2	120
401	First application of supported ionic liquid phase (SILP) catalysis for continuous methanol carbonylation. <i>Chemical Communications</i> , 2006 , 994-6	5.8	120
400	Stability and Kinetic Studies of Supported Ionic Liquid Phase Catalysts for Hydroformylation of Propene. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 9853-9859	3.9	120
399	Imidazolium dialkylphosphates—class of versatile, halogen-free and hydrolytically stable ionic liquids. <i>Green Chemistry</i> , 2007 , 9, 233-242	10	118
398	Linear dimerisation of but-1-ene in biphasic mode using buffered chloroaluminate ionic liquid solvents. <i>Chemical Communications</i> , 1999 , 337-338	5.8	118
397	Phosphines with 2-imidazolium and para-phenyl-2-imidazolium moieties—synthesis and application in two-phase catalysis. <i>Journal of Organometallic Chemistry</i> , 2001 , 630, 177-184	2.3	117
396	Comparison of electrochemical methods for triiodide diffusion coefficient measurements and observation of non-Stokesian diffusion behaviour in binary mixtures of two ionic liquids. <i>Electrochimica Acta</i> , 2006 , 52, 161-169	6.7	115
395	Surface characterization of functionalized imidazolium-based ionic liquids. <i>Langmuir</i> , 2008 , 24, 9500-7	4	112
394	Toward ionic-liquid-based model catalysis: growth, orientation, conformation, and interaction mechanism of the [Tf2N]- anion in [BMIM][Tf2N] thin films on a well-ordered alumina surface. <i>Langmuir</i> , 2010 , 26, 7199-207	4	105
393	Surface enrichment and depletion effects of ions dissolved in an ionic liquid: an X-ray photoelectron spectroscopy study. <i>Angewandte Chemie - International Edition</i> , 2006 , 45, 7778-80	16.4	105
392	Biomass oxidation to formic acid in aqueous media using polyoxometalate catalysts—boosting FA selectivity by in-situ extraction. <i>Energy and Environmental Science</i> , 2015 , 8, 2985-2990	35.4	102
391	Ionic Liquids for Electrolyte-Gating of ZnO Field-Effect Transistors. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 13536-13544	3.8	102
390	Viscosity, Interfacial Tension, Density, and Refractive Index of Ionic Liquids [EMIM][MeSO3], [EMIM][MeOHPO2], [EMIM][OcSO4], and [BBIM][NTf2] in Dependence on Temperature at Atmospheric Pressure. <i>Journal of Chemical & Engineering Data</i> , 2009 , 54, 2576-2583	2.8	102
389	Continuous Gas-Phase Hydroformylation of 1-Butene using Supported Ionic Liquid Phase (SILP) Catalysts. <i>Advanced Synthesis and Catalysis</i> , 2007 , 349, 425-431	5.6	101
388	Ethylene tetramerisation: Subtle effects exhibited by N-substituted diphosphinoamine ligands. <i>Journal of Catalysis</i> , 2007 , 249, 244-249	7.3	100
387	Effective chirality transfer in ionic liquids through ion-pairing effects. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 1293-5	16.4	97

- 386 Carbon dioxide capture by an amine functionalized ionic liquid: fundamental differences of surface and bulk behavior. *Journal of the American Chemical Society*, **2014**, 136, 436-41 16.4 95
- 385 Surface Studies on the Ionic Liquid 1-Ethyl-3-Methylimidazolium Ethylsulfate Using X-Ray Photoelectron Spectroscopy (XPS). *Zeitschrift Fur Physikalische Chemie*, **2006**, 220, 1439-1453 3.1 95
- 384 Rhodium-phosphite SILP catalysis for the highly selective hydroformylation of mixed C4 feedstocks. *Angewandte Chemie - International Edition*, **2011**, 50, 4492-5 16.4 88
- 383 Mechanistic studies on the formation of Pt(II) hydroformylation catalysts in imidazolium-based ionic liquids. *Journal of Organometallic Chemistry*, **2005**, 690, 3567-3576 2.3 88
- 382 Spectroscopic and electrochemical characterization of heteropoly acids for their optimized application in selective biomass oxidation to formic acid. *Green Chemistry*, **2014**, 16, 226-237 10 85
- 381 Ionic liquids in regioselective platinum-catalysed hydroformylation. *Journal of Molecular Catalysis A*, **2000**, 164, 61-67 84
- 380 Model Catalytic Studies of Liquid Organic Hydrogen Carriers: Dehydrogenation and Decomposition Mechanisms of Dodecahydro-ethylcarbazole on Pt(111). *ACS Catalysis*, **2014**, 4, 657-665 13.1 82
- 379 Hydrogen storage using a hot pressure swing reactor. *Energy and Environmental Science*, **2017**, 10, 1652-1659 39.4 79
- 378 N-substituted diphosphinoamines: Toward rational ligand design for the efficient tetramerization of ethylene. *Journal of Catalysis*, **2007**, 245, 279-284 7.3 79
- 377 Dehydrogenation of dodecahydro-N-ethylcarbazole on Pd/Al₂O₃ model catalysts. *Chemistry - A European Journal*, **2011**, 17, 11542-52 4.8 76
- 376 ¹³C NMR relaxation rates in the ionic liquid 1-methyl-3-nonylimidazolium hexafluorophosphate. *Journal of Physical Chemistry A*, **2005**, 109, 6676-82 2.8 76
- 375 Selection of entrainers in the 1-hexene/n-hexane system with a limited solubility. *Fluid Phase Equilibria*, **2007**, 260, 29-35 2.5 73
- 374 Enhanced enantioselectivity of lipase from *Pseudomonas* sp. at high temperatures and fixed water activity in the ionic liquid, 1-butyl-3-methylimidazolium bis[(trifluoromethyl)sulfonyl]amide. *Biotechnology Letters*, **2002**, 24, 763-767 3 73
- 373 Ligand effects in SCILL model systems: site-specific interactions with Pt and Pd nanoparticles. *Advanced Materials*, **2011**, 23, 2617-21 24 72
- 372 Chemical utilization of hydrogen from fluctuating energy sources [Catalytic transfer hydrogenation from charged Liquid Organic Hydrogen Carrier systems. *International Journal of Hydrogen Energy*, **2016**, 41, 1010-1017 6.7 70
- 371 Ionic liquid based model catalysis: interaction of [BMIM][Tf₂N] with Pd nanoparticles supported on an ordered alumina film. *Physical Chemistry Chemical Physics*, **2010**, 12, 10610-21 3.6 70
- 370 New Method to Recycle Homogeneous Catalysts from Monophasic Reaction Mixtures by Using an Ionic Liquid Exemplified for the Rh-Catalysed Hydroformylation of Methyl-3-pentenoate. *Journal of Catalysis*, **1999**, 186, 481-484 7.3 69
- 369 A new class of double alkyl-substituted, liquid crystalline imidazolium ionic liquids—a unique combination of structural features, viscosity effects, and thermal properties. *Chemical Communications*, **2009**, 7405-7 5.8 68

368	1-Vinylimidazole is a versatile building block for the synthesis of cationic phosphines useful in ionic liquid biphasic catalysis. <i>Journal of Molecular Catalysis A</i> , 2001 , 175, 285-288		68
367	Dehydrogenation mechanism of liquid organic hydrogen carriers: dodecahydro-N-ethylcarbazole on Pd(111). <i>Chemistry - A European Journal</i> , 2013 , 19, 10854-65	4.8	67
366	Trialkylsulfonium dicyanamides--a new family of ionic liquids with very low viscosities. <i>Chemical Communications</i> , 2005 , 5080-2	5.8	67
365	Extraction Coupled Oxidative Desulfurization of Fuels to Sulfate and Water-Soluble Sulfur Compounds Using Polyoxometalate Catalysts and Molecular Oxygen. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 4110-4118	8.3	65
364	Screening of Supported Ionic Liquid Phase (SILP) catalysts for the very low temperature water-gas-shift reaction. <i>Applied Catalysis A: General</i> , 2010 , 377, 70-75	5.1	65
363	Ionic Liquids: Media for Better Molecular Catalysis. <i>Topics in Catalysis</i> , 2004 , 29, 139-143	2.3	65
362	Dynamic power supply by hydrogen bound to a liquid organic hydrogen carrier. <i>Applied Energy</i> , 2017 , 194, 1-8	10.7	63
361	Viscosity, Interfacial Tension, Self-Diffusion Coefficient, Density, and Refractive Index of the Ionic Liquid 1-Ethyl-3-methylimidazolium Tetracyanoborate as a Function of Temperature at Atmospheric Pressure. <i>Journal of Chemical & Engineering Data</i> , 2012 , 57, 828-835	2.8	63
360	Ultra-Low-Temperature Water-Gas Shift Catalysis using Supported Ionic Liquid Phase (SILP) Materials*. <i>ChemCatChem</i> , 2010 , 2, 1399-1402	5.2	63
359	Molecular structure, reorientational dynamics, and intermolecular interactions in the neat ionic liquid 1-butyl-3-methylimidazolium hexafluorophosphate. <i>Pure and Applied Chemistry</i> , 2004 , 76, 255-261	2.1	63
358	Ionic Liquids, 3. Synthesis and Utilisation of Protic Imidazolium Salts in Homogeneous Catalysis. <i>Advanced Synthesis and Catalysis</i> , 2003 , 345, 959-962	5.6	62
357	Influence of Elevated Temperature and Pressure on the Chromium-Catalysed Tetramerisation of Ethylene. <i>Advanced Synthesis and Catalysis</i> , 2006 , 348, 1200-1206	5.6	61
356	Homogeneous ruthenium-based water-gas shift catalysts via supported ionic liquid phase (SILP) technology at low temperature and ambient pressure. <i>Physical Chemistry Chemical Physics</i> , 2009 , 11, 10817-9	3.6	60
355	The use of bis(diphenylphosphino)amines with N-aryl functionalities in selective ethylene tri- and tetramerisation. <i>Journal of Molecular Catalysis A</i> , 2007 , 270, 214-218		60
354	Transesterification of methylsulfate and ethylsulfate ionic liquids--an environmentally benign way to synthesize long-chain and functionalized alkylsulfate ionic liquids. <i>Green Chemistry</i> , 2006 , 8, 887-894	10	60
353	Halide-Free Synthesis and Tribological Performance of Oil-Miscible Ammonium and Phosponium-Based Ionic Liquids. <i>ACS Sustainable Chemistry and Engineering</i> , 2015 , 3, 797-808	8.3	59
352	New, highly acidic ionic liquid systems and their application in the carbonylation of toluene. <i>Chemical Communications</i> , 2004 , 1552-3	5.8	58
351	New, functionalised ionic liquids from Michael-type reactions--a chance for combinatorial ionic liquid development. <i>Chemical Communications</i> , 2003 , 2038-9	5.8	58

350	Selective dimerisation of 1-butene in biphasic mode using buffered chloroaluminate ionic liquid solvents Design and application of a continuous loop reactor. <i>Catalysis Today</i> , 2001 , 66, 309-316	5.3	58
349	Ionic liquids in refinery desulfurization: comparison between biphasic and supported ionic liquid phase suspension processes. <i>ChemSusChem</i> , 2009 , 2, 969-77	8.3	57
348	Synthesis of [EMIM]OH via bipolar membrane electro dialysis Precursor production for the combinatorial synthesis of [EMIM]-based ionic liquids. <i>Green Chemistry</i> , 2007 , 9, 935	10	56
347	Revealing the influence of the strength of coulomb interactions on the viscosity and interfacial tension of ionic liquid cosolvent mixtures. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 12817-22	3.4	56
346	Dehydrogenation of dodecahydro-N-ethylcarbazole on Pt(111). <i>ChemSusChem</i> , 2013 , 6, 974-7	8.3	55
345	Expanding the scope of biogenic substrates for the selective production of formic acid from water-insoluble and wet waste biomass. <i>Green Chemistry</i> , 2015 , 17, 5164-5171	10	54
344	Material development for dye solar modules: results from an integrated approach. <i>Progress in Photovoltaics: Research and Applications</i> , 2008 , 16, 489-501	6.8	54
343	Efficient hydrogen release from perhydro-N-ethylcarbazole using catalyst-coated metallic structures produced by selective electron beam melting. <i>Energy and Environmental Science</i> , 2015 , 8, 641-649	3.4	53
342	Hydrogenation of the liquid organic hydrogen carrier compound dibenzyltoluene Reaction pathway determination by ¹ H NMR spectroscopy. <i>Reaction Chemistry and Engineering</i> , 2016 , 1, 313-320	4.9	53
341	Size and Structure Effects Controlling the Stability of the Liquid Organic Hydrogen Carrier Dodecahydro-N-ethylcarbazole during Dehydrogenation over Pt Model Catalysts. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 1498-504	6.4	53
340	Hydrogen Storage: Thermochemical Studies of N-Alkylcarbazoles and Their Derivatives as a Potential Liquid Organic Hydrogen Carriers. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 26381-26389	3.8	53
339	Continuous gas-phase desulfurisation using supported ionic liquid phase (SILP) materials. <i>Green Chemistry</i> , 2010 , 12, 979	10	51
338	Development of a Supported Ionic Liquid Phase (SILP) Catalyst for Slurry-Phase Friedel-Crafts Alkylations of Cumene. <i>Advanced Synthesis and Catalysis</i> , 2009 , 351, 423-431	5.6	51
337	Characterisation of DSSC-electrolytes based on 1-ethyl-3-methylimidazolium dicyanamide: Measurement of triiodide diffusion coefficient, viscosity, and photovoltaic performance. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2008 , 197, 25-33	4.7	51
336	Operando DRIFTS and DFT Study of Propane Dehydrogenation over Solid- and Liquid-Supported Ga Pt Catalysts. <i>ACS Catalysis</i> , 2019 , 9, 2842-2853	13.1	50
335	CO ₂ Capture by Novel Supported Ionic Liquid Phase Systems Consisting of Silica Nanoparticles Encapsulating Amine-Functionalized Ionic Liquids. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 24437-24451	3.8	50
334	KOH-promoted Pt/Al ₂ O ₃ catalysts for water gas shift and methanol steam reforming: An operando DRIFTS-MS study. <i>Applied Catalysis B: Environmental</i> , 2017 , 201, 169-181	21.8	50
333	Catalytic production of hydrogen from glucose and other carbohydrates under exceptionally mild reaction conditions. <i>Green Chemistry</i> , 2010 , 12, 1150	10	50

332	Acrylate dimerisation under ionic liquid/supercritical carbon dioxide conditions. <i>Green Chemistry</i> , 2003 , 5, 232-235	10	50
331	Continuous Gas-Phase Hydroformylation of a Highly Diluted Technical C4 Feed using Supported Ionic Liquid Phase Catalysts. <i>ChemCatChem</i> , 2011 , 3, 1822-1827	5.2	49
330	Challenging the scope of continuous, gas-phase reactions with supported ionic liquid phase (SILP) catalysts: Asymmetric hydrogenation of methyl acetoacetate. <i>Applied Catalysis A: General</i> , 2011 , 399, 35-41	5.1	49
329	Ionic Liquids for Propene-Propane Separation. <i>Chemical Engineering and Technology</i> , 2010 , 33, 63-73	2	49
328	Transition-state effects of ionic liquids in substitution reactions of Pt(II) complexes. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 6033-8	16.4	49
327	Langzeitstabile und hoch regioselektive Supported-Ionic-Liquid-Phase (SILP) Katalysatoren: Kontinuierliche Hydroformylierung von Propen im Festbettreaktor. <i>Angewandte Chemie</i> , 2005 , 117, 826-830	3.6	49
326	Quasi-solid state polymer electrolytes for dye-sensitized solar cells: Effect of the electrolyte components variation on the triiodide ion diffusion properties and charge-transfer resistance at platinum electrode. <i>Solid State Ionics</i> , 2006 , 177, 3141-3146	3.3	48
325	Carbon nanohorn-based electrolyte for dye-sensitized solar cells. <i>Energy and Environmental Science</i> , 2015 , 8, 241-246	35.4	47
324	Ionic Liquids as Operating Fluids in High Pressure Applications. <i>Chemical Engineering and Technology</i> , 2007 , 30, 1475-1480	2	47
323	Quantitative analysis of alpha-D-glucose in an ionic liquid by using infrared spectroscopy. <i>ChemPhysChem</i> , 2008 , 9, 1317-22	3.2	47
322	Beneficial Effects of Liquid Crystalline Phases in Solid-State Dye-Sensitized Solar Cells. <i>Advanced Energy Materials</i> , 2013 , 3, 657-665	21.8	46
321	Solid-State Structures of Double-Long-Chain Imidazolium Ionic Liquids: Influence of Anion Shape on Cation Geometry and Crystal Packing. <i>Crystal Growth and Design</i> , 2011 , 11, 1974-1988	3.5	45
320	An Ionic Liquid as Catalyst Medium for Stereoselective Hydrogenations of Sorbic Acid with Ruthenium Complexes. <i>Journal für Praktische Chemie</i> , 2000 , 342, 348-354		44
319	Experimental assessment of the degree of hydrogen loading for the dibenzyl toluene based LOHC system. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 22097-22103	6.7	43
318	Supported ionic liquid phase (SILP) catalyzed hydroformylation of 1-butene in a gradient-free loop reactor. <i>Journal of Catalysis</i> , 2009 , 263, 321-327	7.3	43
317	Boosting the activity of hydrogen release from liquid organic hydrogen carrier systems by sulfur-additives to Pt on alumina catalysts. <i>Catalysis Science and Technology</i> , 2019 , 9, 3537-3547	5.5	41
316	Analysis of reaction mixtures of perhydro-dibenzyltoluene using two-dimensional gas chromatography and single quadrupole gas chromatography. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 5620-5636	6.7	41
315	Organic reactions in ionic liquids studied by in situ XPS. <i>ChemPhysChem</i> , 2012 , 13, 1725-35	3.2	41

314	Ionic liquids as weakly-coordinating solvents for the biphasic ethylene oligomerization to α -olefins using cationic Ni-complexes. <i>Journal of Molecular Catalysis A</i> , 2004 , 214, 83-90		41
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