Christopher Hardacre

List of Publications by Year
in descending order

466 papers	25,539 citations	7568 77 h-index	11939 134 g-index
488 all docs	488 docs citations	488 times ranked	20048 citing authors

#	Article	IF	Citations
1	Catalysis in Ionic Liquids. Chemical Reviews, 2007, 107, 2615-2665.	47.7	2,179
2	Effect of Water on the Electrochemical Window and Potential Limits of Room-Temperature Ionic Liquids. Journal of Chemical & Engineering Data, 2008, 53, 2884-2891.	1.9	486
3	Structure of molten 1,3-dimethylimidazolium chloride using neutron diffraction. Journal of Chemical Physics, 2003, 118, 273-278.	3.0	456
4	Small-Angle X-ray Scattering Studies of Liquid Crystalline 1-Alkyl-3-methylimidazolium Salts. Chemistry of Materials, 2002, 14, 629-635.	6.7	409
5	Use of Room Temperature Ionic Liquids in Gas Sensor Design. Analytical Chemistry, 2004, 76, 4583-4588.	6.5	376
6	Liquid clathrate formation in ionic liquidâ€“aromatic mixturesElectronic supplementary information (ESI) available: crystallographic information, CCDC 200588â€“200590. See http://www.rsc.org/suppdata/cc/b2/b212726a/ for crystallographic files in CIF or other electronic format.. Chemical Communications, 2003, , 476-477.	4.1	370
7	Structure and Solvation in Ionic Liquids. Accounts of Chemical Research, 2007, 40, 1146-1155.	15.6	314
8	Industrial Applications of Ionic Liquids. Molecules, 2020, 25, 5207.	3.8	274
9	Small angle neutron scattering from 1-alkyl-3-methylimidazolium hexafluorophosphate ionic liquids ([Cnmim][PF6], n=4, 6, and 8). Journal of Chemical Physics, 2010, 133, 074510.	3.0	273
10	Voltammetry of Oxygen in the Room-Temperature Ionic Liquids 1-Ethyl-3-methylimidazolium Bis((trifluoromethyl)sulfonyl)imide and Hexyltriethylammonium Bis((trifluoromethyl)sulfonyl)imide:â€‰ One-Electron Reduction To Form Superoxide. Steady-State and Transient Behavior in the Same Cyclic Voltammogram Resulting from Widely Different Diffusion Coefficients of Oxygen and Superoxide. Journal of Physical Chemistry A, 2003, 107, 8872-8878.	2.5	248
11	Quantification of Halide in Ionic Liquids Using Ion Chromatography. Analytical Chemistry, 2004, 76, 2118-2123.	6.5	242
12	Prediction of Ionic Liquid Properties. I. Volumetric Properties as a Function of Temperature at 0.1 MPa. Journal of Chemical & Engineering Data, 2008, 53, 716-726.	1.9	233
13	Voltammetric Characterization of the Ferrocene|Ferrocenium and Cobaltocenium|Cobaltocene Redox Couples in RTILs. Journal of Physical Chemistry C, 2008, 112, 2729-2735.	3.1	228
14	Thermal Properties of Ionic Liquids and IoNanofluids of Imidazolium and Pyrrolidinium Liquids. Journal of Chemical & Engineering Data, 2010, 55, 653-661.	1.9	217
15	Electroreduction of Oxygen in a Series of Room Temperature Ionic Liquids Composed of Group 15-Centered Cations and Anions. Journal of Physical Chemistry B, 2004, 108, 7878-7886.	2.6	216
16	Liquid Structure of the Ionic Liquid 1,3-Dimethylimidazolium Bis{(trifluoromethyl)sulfonyl}amide. Journal of Physical Chemistry B, 2006, 110, 12055-12061.	2.6	215
17	Influence of surface structures, subsurface carbon and hydrogen, and surface alloying on the activity and selectivity of acetylene hydrogenation on Pd surfaces: A density functional theory study. Journal of Catalysis, 2013, 305, 264-276.	6.2	214
18	Glucose Solvation by the Ionic Liquid 1,3-Dimethylimidazolium Chloride:â€‰ A Simulation Study. Journal of Physical Chemistry B, 2007, 111, 13765-13774.	2.6	205

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19	DFT and In Situ EXAFS Investigation of Gold/Ceriaâ^'Zirconia Low-Temperature Water Gas Shift Catalysts:â€‰Identification of the Nature of the Active Form of Gold. Journal of Physical Chemistry B, 2005, 109, 22553-22559.	2.6	197
20	Application of Static Charge Transfer within an Ionicâ€Liquid Force Field and Its Effect on Structure and Dynamics. ChemPhysChem, 2008, 9, 1548-1558.	2.1	190
21	Microwave Irradiation for the Facile Synthesis of Transitionâ€Metal Nanoparticles (NPs) in Ionic Liquids (ILs) from Metalâ€“Carbonyl Precursors and Ruâ€, Rhâ€, and Irâ€NP/IL Dispersions as Biphasic Liquidâ€“Liquid Hydrogenation Nanocatalysts for Cyclohexene. Chemistry - A European Journal, 2010, 16, 3849-3858.	3.3	184
22	Highly selective and efficient hydrogenation of carboxylic acids to alcohols using titania supported Pt catalysts. Chemical Communications, 2010, 46, 6279.	4.1	184
23	Thermodynamics, Structure, and Dynamics in Room Temperature Ionic Liquids:Â The Case of 1-Butyl-3-methyl Imidazolium Hexafluorophosphate ([bmim][PF6]). Journal of Physical Chemistry B, 2006, 110, 21357-21364.	2.6	180
24	Application of heterogeneous catalysts prepared by mechanochemical synthesis. Chemical Society Reviews, 2013, 42, 7701.	38.1	177
25	Quantitative analysis of the reactivity of formate species seen by DRIFTS over a Au/Ce(La)O2 waterâ€“gas shift catalyst: First unambiguous evidence of the minority role of formates as reaction intermediates. Journal of Catalysis, 2007, 247, 277-287.	6.2	174
26	Heat Capacities of Ionic Liquids as a Function of Temperature at 0.1 MPa. Measurement and Prediction. Journal of Chemical & Engineering Data, 2008, 53, 2148-2153.	1.9	173
27	Thermal Conductivities of Ionic Liquids over the Temperature Range from 293 K to 353 K. Journal of Chemical & Engineering Data, 2007, 52, 1819-1823.	1.9	167
28	Structure of Ionic Liquidâ^'Benzene Mixtures. Journal of Physical Chemistry B, 2005, 109, 1593-1598.	2.6	165
29	Origin of the Increase of Activity and Selectivity of Nickel Doped by Au, Ag, and Cu for Acetylene Hydrogenation. ACS Catalysis, 2012, 2, 1027-1032.	11.2	162
30	Metal Redispersion Strategies for Recycling of Supported Metal Catalysts: A Perspective. ACS Catalysis, 2015, 5, 3430-3445.	11.2	154
31	Extended Electrochemical Windows Made Accessible by Room Temperature Ionic Liquid/Organic Solvent Electrolyte Systems. ChemPhysChem, 2006, 7, 176-180.	2.1	153
32	Electrochemistry of Sulfur and Polysulfides in Ionic Liquids. Journal of Physical Chemistry B, 2011, 115, 13873-13879.	2.6	147
33	Prediction of Ionic Liquid Properties. II. Volumetric Properties as a Function of Temperature and Pressure. Journal of Chemical & Engineering Data, 2008, 53, 2133-2143.	1.9	139
34	A Comparative Electrochemical Study of Diffusion in Room Temperature Ionic Liquid Solvents versus Acetonitrile. ChemPhysChem, 2005, 6, 526-533.	2.1	137
35	Plasma-assisted catalytic dry reforming of methane (DRM) over metal-organic frameworks (MOFs)-based catalysts. Applied Catalysis B: Environmental, 2020, 260, 118195.	20.2	135
36	Reduction of Carbon Dioxide to Formate at Low Overpotential Using a Superbase Ionic Liquid. Angewandte Chemie - International Edition, 2015, 54, 14164-14168.	13.8	134

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37	Ensemble Effects in the Coupling of Acetylene to Benzene on a Bimetallic Surface:Â A Study with Pd{111}/Au. The Journal of Physical Chemistry, 1996, 100, 2189-2194.	2.9	133
38	Structural Studies of Crystalline 1-Alkyl-3-Methylimidazolium Chloride Salts. Chemistry of Materials, 2004, 16, 43-48.	6.7	131
39	Origin of Low CO₂ Selectivity on Platinum in the Direct Ethanol Fuel Cell. Angewandte Chemie - International Edition, 2012, 51, 1572-1575.	13.8	130
40	Oxidation of N,N,Nâ€²,Nâ€²-tetraalkyl-para-phenylenediamines in a series of room temperature ionic liquids incorporating the bis(trifluoromethylsulfonyl)imide anion. Journal of Electroanalytical Chemistry, 2003, 556, 179-188.	3.8	125
41	Sustaining metalâ€“organic frameworks for waterâ€“gas shift catalysis by non-thermal plasma. Nature Catalysis, 2019, 2, 142-148.	34.4	123
42	The Reduction of Oxygen in Various Room Temperature Ionic Liquids in the Temperature Range 293â^'318 K: Exploring the Applicability of the Stokesâ^'Einstein Relationship in Room Temperature Ionic Liquids. Journal of Physical Chemistry B, 2009, 113, 8953-8959.	2.6	121
43	Neutron diffraction, NMR and molecular dynamics study of glucose dissolved in the ionic liquid 1-ethyl-3-methylimidazolium acetate. Chemical Science, 2011, 2, 1594.	7.4	121
44	Molecular layering and local order in thin films of 1-alkyl-3-methylimidazolium ionic liquids using X-ray reflectivity. Molecular Physics, 2001, 99, 795-800.	1.7	119
45	Thermophysical Properties of Amino Acid-Based Ionic Liquids. Journal of Chemical & Engineering Data, 2010, 55, 1505-1515.	1.9	118
46	Structure and Dynamics of 1-Ethyl-3-methylimidazolium Acetate via Molecular Dynamics and Neutron Diffraction. Journal of Physical Chemistry B, 2010, 114, 7760-7768.	2.6	117
47	Electroanalytical Determination of Trace Chloride in Room-Temperature Ionic Liquids. Analytical Chemistry, 2004, 76, 1998-2003.	6.5	115
48	Structural Investigation of the Promotional Effect of Hydrogen during the Selective Catalytic Reduction of NOx with Hydrocarbons over Ag/Al2O3 Catalysts. Journal of Physical Chemistry B, 2005, 109, 4805-4807.	2.6	115
49	A Molecular Dynamics Study of Glucose Solvation in the Ionic Liquid 1,3-Dimethylimidazolium Chloride. ChemPhysChem, 2006, 7, 2279-2281.	2.1	115
50	Liquid structure of 1, 3-dimethylimidazolium salts. Journal of Physics Condensed Matter, 2003, 15, S159-S166.	1.8	111
51	Electrochemical reduction of nitrobenzene and 4-nitrophenol in the room temperature ionic liquid [C4dmim][N(Tf)2]. Journal of Electroanalytical Chemistry, 2006, 596, 131-140.	3.8	111
52	Quantitative DRIFTS investigation of possible reaction mechanisms for the waterâ€“gas shift reaction on high-activity Pt- and Au-based catalysts. Journal of Catalysis, 2007, 252, 18-22.	6.2	108
53	The effect of various treatment conditions on natural zeolites: Ion exchange, acidic, thermal and steam treatments. Journal of Colloid and Interface Science, 2012, 372, 130-140.	9.4	107
54	Transesterification of vegetable oils on basic large mesoporous alumina supported alkaline fluoridesâ€”Evidences of the nature of the active site and catalytic performances. Journal of Catalysis, 2009, 263, 56-66.	6.2	106

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55	Facile in situ synthesis of nanofluids based on ionic liquids and copper oxide clusters and nanoparticles. Dalton Transactions, 2012, 41, 219-227.	3.3	106
56	Catalytic hydrogenation of tertiary amides at low temperatures and pressures using bimetallic Pt/Re-based catalysts. Journal of Catalysis, 2011, 283, 89-97.	6.2	104
57	A mechanistic study of the electro-oxidation of bromide in acetonitrile and the room temperature ionic liquid, 1-butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide at platinum electrodes. Journal of Electroanalytical Chemistry, 2005, 575, 311-320.	3.8	103
58	Electrochemical studies of gold and chloride in ionic liquids. New Journal of Chemistry, 2006, 30, 1576-1583.	2.8	103
59	An Electrochemical Study of the Oxidation of Hydrogen at Platinum Electrodes in Several Room Temperature Ionic Liquidsâ€. Journal of Physical Chemistry B, 2007, 111, 5000-5007.	2.6	102
60	Mechanistic study of non-thermal plasma assisted CO2 hydrogenation over Ru supported on MgAl layered double hydroxide. Applied Catalysis B: Environmental, 2020, 268, 118752.	20.2	101
61	Evaluation of Gas Solubility Prediction in Ionic Liquids using COSMOthermX. Journal of Chemical & Engineering Data, 2009, 54, 2005-2022.	1.9	98
62	Deactivation Mechanism of a Au/CeZrO₄ Catalyst During a Low-Temperature Water Gas Shift Reaction. Journal of Physical Chemistry C, 2007, 111, 16927-16933.	3.1	92
63	Investigating the Mechanism and Electrode Kinetics of the Oxygen|Superoxide (O₂|O₂^{â€¢â^'}) Couple in Various Room-Temperature Ionic Liquids at Gold and Platinum Electrodes in the Temperature Range 298â^'318 K. Journal of Physical Chemistry C, 2009, 113, 17811-17823.	3.1	91
64	Double potential step chronoamperometry at microdisk electrodes: simulating the case of unequal diffusion coefficients. Journal of Electroanalytical Chemistry, 2004, 571, 211-221.	3.8	88
65	Liquid densities, heat capacities, refractive index and excess quantities for {protic ionic liquids+water} binary system. Journal of Chemical Thermodynamics, 2009, 41, 799-808.	2.0	88
66	Electrochemistry in Room-Temperature Ionic Liquids: Potential Windows at Mercury Electrodes. Journal of Chemical & Engineering Data, 2009, 54, 2049-2053.	1.9	88
67	Relaxation Processes in Room Temperature Ionic Liquids:Â The Case of 1-Butyl-3-Methyl Imidazolium Hexafluorophosphate. Journal of Physical Chemistry B, 2005, 109, 22061-22066.	2.6	86
68	Unusual Voltammetry of the Reduction of O₂ in [C₄dmim][N(Tf)₂] Reveals a Strong Interaction of O₂^{â€¢â^'} with the [C₄dmim]⁺ Cation. Journal of Physical Chemistry C, 2008, 112, 13709-13715.	3.1	85
69	New insight into mechanisms in water-gas-shift reaction on Au/CeO2(111): A density functional theory and kinetic study. Faraday Discussions, 2011, 152, 121.	3.2	85
70	Alternating copolymerisation of styrene and carbon monoxide in ionic liquids. Green Chemistry, 2002, 4, 143-146.	9.0	84
71	Preparation of nanoparticulate metal catalysts in porous supports using an ionic liquid route; hydrogenation and Câ€“C coupling. Inorganic Chemistry Communication, 2004, 7, 73-76.	3.9	84
72	An Electrochemical and ESR Spectroscopic Study on the Molecular Dynamics of TEMPO in Room Temperature Ionic Liquid Solvents. ChemPhysChem, 2005, 6, 1035-1039.	2.1	84

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73	Crystal and liquid crystalline polymorphism in 1-alkyl-3-methylimidazolium tetrachloropalladate(ii) salts. Journal of Materials Chemistry, 2001, 11, 346-350.	6.7	83
74	In situ XAFS investigation of palladium species present during the Heck reaction in room temperature ionic liquids. Green Chemistry, 2002, 4, 139-142.	9.0	82
75	The electrochemical oxidation of hydrogen at activated platinum electrodes in room temperature ionic liquids as solvents. Journal of Electroanalytical Chemistry, 2008, 618, 53-60.	3.8	82
76	Kinetic Analysis of the Reaction between Electrogenerated Superoxide and Carbon Dioxide in the Room Temperature Ionic Liquids 1-Ethyl-3-methylimidazolium Bis(trifluoromethylsulfonyl)imide and Hexyltriethylammonium Bis(trifluoromethylsulfonyl)imide. Journal of Physical Chemistry B, 2004, 108, 3947-3954.	2.6	81
77	Understanding the Optimal Adsorption Energies for Catalyst Screening in Heterogeneous Catalysis. ACS Catalysis, 2014, 4, 182-186.	11.2	81
78	On the complexity of the water-gas shift reaction mechanism over a Pt/CeO2 catalyst: Effect of the temperature on the reactivity of formate surface species studied by operando DRIFT during isotopic transient at chemical steady-state. Catalysis Today, 2007, 126, 143-147.	4.4	80
79	H ₂ production by the photocatalytic reforming of cellulose and raw biomass using Ni, Pd, Pt and Au on titania. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20160054.	2.1	80
80	Electrochemical Rate Constants in Room Temperature Ionic Liquids: The Oxidation of a Series of Ferrocene Derivatives. ChemPhysChem, 2006, 7, 1041-1045.	2.1	78
81	Nonâ€Thermal Plasma Activation of Goldâ€Based Catalysts for Lowâ€Temperature Waterâ€“Gas Shift Catalysis. Angewandte Chemie - International Edition, 2017, 56, 5579-5583.	13.8	77
82	Highly Selective and Solvent-Dependent Reduction of Nitrobenzene to N-Phenylhydroxylamine, Azoxybenzene, and Aniline Catalyzed by Phosphino-Modified Polymer Immobilized Ionic Liquid-Stabilized AuNPs. ACS Catalysis, 2019, 9, 4777-4791.	11.2	77
83	Temperature Dependence of the Primary Relaxation in 1-Hexyl-3-methylimidazolium bis{(trifluoromethyl)sulfonyl}imide. Journal of Physical Chemistry B, 2009, 113, 8469-8474.	2.6	76
84	Tetrahexahedral Pt Nanocrystal Catalysts Decorated with Ru Adatoms and Their Enhanced Activity in Methanol Electrooxidation. ACS Catalysis, 2012, 2, 708-715.	11.2	76
85	Heterogeneously catalysed selective hydrogenation reactions in ionic liquids. Green Chemistry, 2003, 5, 448.	9.0	75
86	Increased Dispersion of Supported Gold during Methanol Carbonylation Conditions. Journal of the American Chemical Society, 2009, 131, 6973-6975.	13.7	75
87	Interaction of water, hydrogen and their mixtures with SnO2 based materials: the role of surface hydroxyl groups in detection mechanisms. Physical Chemistry Chemical Physics, 2010, 12, 2639.	2.8	75
88	Shielding Protection by Mesoporous Catalysts for Improving Plasma-Catalytic Ambient Ammonia Synthesis. Journal of the American Chemical Society, 2022, 144, 12020-12031.	13.7	75
89	APPLICATION OF EXAFS TO MOLTEN SALTS AND IONIC LIQUID TECHNOLOGY. Annual Review of Materials Research, 2005, 35, 29-49.	9.3	74
90	Solubility of carbon dioxide and ethane in three ionic liquids based on the bis{(trifluoromethyl)sulfonyl}imide anion. Fluid Phase Equilibria, 2007, 257, 27-34.	2.5	74

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91	Probing a Non-Thermal Plasma Activated Heterogeneously Catalyzed Reaction Using in Situ DRIFTS-MS. ACS Catalysis, 2015, 5, 956-964.	11.2	74
92	Structural selectivity of supported Pd nanoparticles for catalytic NH3 oxidation resolved using combined operando spectroscopy. Nature Catalysis, 2019, 2, 157-163.	34.4	74
93	Redispersion of Gold Supported on Oxides. ACS Catalysis, 2012, 2, 552-560.	11.2	73
94	Pinning down the solid-state polymorphism of the ionic liquid [bmim][PF6]. Chemical Science, 2013, 4, 1270.	7.4	73
95	Role of Water and Adsorbed Hydroxyls on Ethanol Electrochemistry on Pd: New Mechanism, Active Centers, and Energetics for Direct Ethanol Fuel Cell Running in Alkaline Medium. Journal of Physical Chemistry C, 2014, 118, 5762-5772.	3.1	73
96	Marked enantioselectivity enhancements for Dielsâ€“Alder reactions in ionic liquids catalysed by platinum diphosphine complexes. Green Chemistry, 2004, 6, 63-67.	9.0	72
97	Electrochemical Oxidation of Nitrite and the Oxidation and Reduction of NO2 in the Room Temperature Ionic Liquid [C2mim][NTf2]. Journal of Physical Chemistry B, 2007, 111, 7778-7785.	2.6	72
98	Rheological and heat transfer behaviour of the ionic liquid, [C4mim][NTf2]. International Journal of Heat and Fluid Flow, 2008, 29, 149-155.	2.4	72
99	Ion Association in [bmim][PF₆]/Naphthalene Mixtures: An Experimental and Computational Study. Journal of the American Chemical Society, 2008, 130, 7032-7041.	13.7	72
100	Selective hydrogenation of fatty acids to alcohols over highly dispersed ReO /TiO2 catalyst. Journal of Catalysis, 2015, 328, 197-207.	6.2	72
101	Techno-Economic Feasibility of Selective CO₂ Capture Processes from Biogas Streams Using Ionic Liquids as Physical Absorbents. Energy & Fuels, 2016, 30, 5052-5064.	5.1	72
102	A Structural and Electrochemical Investigation of 1-Alkyl-3-methylimidazolium Salts of the Nitratodioxouranate(VI) Anions [{UO2(NO3)2}2(Î¼4-C2O4)]2-, [UO2(NO3)3]-, and [UO2(NO3)4]2-. Inorganic Chemistry, 2004, 43, 2503-2514.	4.0	71
103	Evolution and Enabling Capabilities of Spatially Resolved Techniques for the Characterization of Heterogeneously Catalyzed Reactions. ACS Catalysis, 2016, 6, 1356-1381.	11.2	70
104	Mechanistic Study of 1,3-Butadiene Formation in Acetylene Hydrogenation over the Pd-Based Catalysts Using Density Functional Calculations. Journal of Physical Chemistry C, 2014, 118, 1560-1567.	3.1	68
105	Coupling non-thermal plasma with Ni catalysts supported on BETA zeolite for catalytic CO₂ methanation. Catalysis Science and Technology, 2019, 9, 4135-4145.	4.1	68
106	Ionic liquidsâ€”media for unique phosphorus chemistry. Chemical Communications, 2006, , 72-74.	4.1	67
107	Atomically Dispersed Copper Sites in a Metalâ€“Organic Framework for Reduction of Nitrogen Dioxide. Journal of the American Chemical Society, 2021, 143, 10977-10985.	13.7	66
108	Supported and liquid phase task specific ionic liquids for base catalysed Knoevenagel reactions. Journal of Molecular Catalysis A, 2007, 269, 64-71.	4.8	65

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109	A highly efficient synthetic procedure for deuteriating imidazoles and imidazolium salts. Chemical Communications, 2001, , 367-368.	4.1	64
110	Determination of ammonia based on the electro-oxidation of hydroquinone in dimethylformamide or in the room temperature ionic liquid, 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide. Talanta, 2004, 62, 904-911.	5.5	64
111	Functionalised ionic liquids: synthesis of ionic liquids with tethered basic groups and their use in Heck and Knoevenagel reactions. New Journal of Chemistry, 2010, 34, 723.	2.8	64
112	Influence of Methyl Halide Treatment on Gold Nanoparticles Supported on Activated Carbon. Angewandte Chemie - International Edition, 2011, 50, 8912-8916.	13.8	64
113	Voltammetric Studies of Gold, Protons, and [HCl2]-in Ionic Liquids. Journal of Physical Chemistry C, 2007, 111, 8496-8503.	3.1	63
114	Liquidâ€“liquid miscibility and volumetric properties of aqueous solutions of ionic liquids as a function of temperature. Journal of Chemical Thermodynamics, 2009, 41, 1206-1214.	2.0	63
115	Efficient and selective hydrogen peroxide-mediated oxidation of sulfides in batch and segmented and continuous flow using a peroxometalate-based polymer immobilised ionic liquid phase catalyst. Green Chemistry, 2015, 17, 1559-1571.	9.0	63
116	Electrochemical Kinetics of Ag|Ag+ and TMPD|TMPD+â€¢ in the Room-Temperature Ionic Liquid [C4mpyrr][NTf2]; toward Optimizing Reference Electrodes for Voltammetry in RTILs. Journal of Physical Chemistry C, 2007, 111, 13957-13966.	3.1	62
117	An investigation of the thermal stability and sulphur tolerance of Ag/Î³-Al2O3 catalysts for the SCR of NOx with hydrocarbons and hydrogen. Applied Catalysis B: Environmental, 2007, 70, 36-44.	20.2	62
118	The use of short time-on-stream in situ spectroscopic transient kinetic isotope techniques to investigate the mechanism of hydrocarbon selective catalytic reduction (HC-SCR) of NO at low temperatures. Journal of Catalysis, 2011, 281, 98-105.	6.2	62
119	Selective Hydrogenation of Î±,Î²â€Unsaturated Aldehydes and Ketones using Novel Manganese Oxide and Platinum Supported on Manganese Oxide Octahedral Molecular Sieves as Catalysts. ChemCatChem, 2013, 5, 506-512.	3.7	62
120	Ambient Temperature Hydrocarbon Selective Catalytic Reduction of NO_x Using Atmospheric Pressure Nonthermal Plasma Activation of a Ag/Al₂O₃ Catalyst. ACS Catalysis, 2014, 4, 666-673.	11.2	62
121	A catalytic and mechanistic study of the Friedelâ€“Crafts benzoylation of anisole using zeolites in ionic liquids. Journal of Catalysis, 2004, 227, 44-52.	6.2	61
122	Effect of Acetonitrile on the Solubility of Carbon Dioxide in 1-Ethyl-3-methylimidazolium Bis(trifluoromethylsulfonyl)amide. Industrial & Engineering Chemistry Research, 2006, 45, 8180-8188.	3.7	61
123	Pulse-response TAP studies of the reverse waterâ€“gas shift reaction over a Pt/CeO2 catalyst. Journal of Catalysis, 2006, 237, 102-110.	6.2	61
124	A fast transient kinetic study of the effect of H2 on the selective catalytic reduction of NOx with octane using isotopically labelled 15NO. Journal of Catalysis, 2007, 246, 1-9.	6.2	61
125	Efficient Heterogeneous Asymmetric Catalysis of the Mukaiyama Aldol Reaction by Silicaâ€•and Ionic Liquidâ€Supported Lewis Acid Copper(II) Complexes of Bis(oxazolines). Advanced Synthesis and Catalysis, 2008, 350, 295-302.	4.3	61
126	Chloroindate(iii) ionic liquids: recyclable media for Friedelâ€“Crafts acylation reactions. Chemical Communications, 2005, , 903-905.	4.1	60

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127	SpaciMS: spatial and temporal operando resolution of reactions within catalytic monoliths. Analyst, The, 2010, 135, 2260.	3.5	60
128	Interfacial tensions of imidazolium-based ionic liquids with water and n-alkanes. Fluid Phase Equilibria, 2010, 294, 139-147.	2.5	59
129	A new insight into pure and water-saturated quaternary phosphonium-based carboxylate ionic liquids: Density, heat capacity, ionic conductivity, thermogravimetric analysis, thermal conductivity and viscosity. Journal of Chemical Thermodynamics, 2018, 121, 97-111.	2.0	59
130	CO Poisoning of Ru Catalysts in CO₂ Hydrogenation under Thermal and Plasma Conditions: A Combined Kinetic and Diffuse Reflectance Infrared Fourier Transform Spectroscopyâ€“Mass Spectrometry Study. ACS Catalysis, 2020, 10, 12828-12840.	11.2	59
131	CO2 Capture in Wet and Dry Superbase Ionic Liquids. Journal of Solution Chemistry, 2015, 44, 511-527.	1.2	58
132	Probing the Role of a Nonâ€Thermal Plasma (NTP) in the Hybrid NTP Catalytic Oxidation of Methane. Angewandte Chemie - International Edition, 2017, 56, 9351-9355.	13.8	58
133	Utilisation of ionic liquid solvents for the synthesis of Lily-of-the-Valley fragrance {Î²-LilialÂ®; 3-(4-t-butylphenyl)-2-methylpropanal}. Journal of Molecular Catalysis A, 2005, 231, 61-66.	4.8	57
134	Insight into the key aspects of the regeneration process in the NOx storage reduction (NSR) reaction probed using fast transient kinetics coupled with isotopically labelled 15NO over Pt and Rh-containing Ba/Al2O3 catalysts. Applied Catalysis B: Environmental, 2008, 81, 150-159.	20.2	57
135	The origin of high activity but low CO2 selectivity on binary PtSn in the direct ethanol fuel cell. Physical Chemistry Chemical Physics, 2014, 16, 9432-9440.	2.8	56
136	An efficient recyclable peroxometalate-based polymer-immobilised ionic liquid phase (PIILP) catalyst for hydrogen peroxide-mediated oxidation. Green Chemistry, 2012, 14, 925.	9.0	55
137	Low-Temperature Selective Catalytic Reduction (SCR) of NO_x with n-Octane Using Solvent-Free Mechanochemically Prepared Ag/Al₂O₃ Catalysts. ACS Catalysis, 2011, 1, 1257-1262.	11.2	54
138	Characterization of silica-supported dodecatungstic heteropolyacids as a function of their dehydroxylation temperature. Dalton Transactions, 2009, , 2235.	3.3	53
139	The effect of reaction conditions on the stability of Au/CeZrO4 catalysts in the low-temperature waterâ€“gas shift reaction. Journal of Catalysis, 2010, 273, 257-265.	6.2	53
140	In situ study of ozone and hybrid plasma Agâ€“Al catalysts for the oxidation of toluene: Evidence of the nature of the active sites. Applied Catalysis B: Environmental, 2011, 104, 84-90.	20.2	53
141	Selective hydrogenation of acetylene in ethylene rich feed streams at high pressure over ligand modified Pd/TiO2. Catalysis Science and Technology, 2012, 2, 632.	4.1	53
142	Recyclable Copper Catalysts Based on Imidazolium-Tagged Bis(oxazolines): A Marked Enhancement in Rate and Enantioselectivity for Dielsâ€“Alder Reactions in Ionic Liquid. Advanced Synthesis and Catalysis, 2007, 349, 951-963.	4.3	52
143	The First Continuous Flow Hydrogenation of Amides to Amines. ChemCatChem, 2013, 5, 2843-2847.	3.7	52
144	Non-thermal plasma catalysis for CO₂ conversion and catalyst design for the process. Journal Physics D: Applied Physics, 2021, 54, 233001.	2.8	52

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145	Selective Hydrogenation of Acetylene over Pdâ€“Boron Catalysts: A Density Functional Theory Study. Journal of Physical Chemistry C, 2014, 118, 3664-3671.	3.1	51
146	Combined EXAFS, XRD, DRIFTS, and DFT Study of Nano Copper-Based Catalysts for CO₂ Hydrogenation. ACS Catalysis, 2016, 6, 5823-5833.	11.2	51
147	Understanding the heat capacity enhancement in ionic liquid-based nanofluids (ionanofluids). Journal of Molecular Liquids, 2018, 253, 326-339.	4.9	51
148	Electrooxidation of the Iodides [C₄mim]I, LiI, NaI, KI, RbI, and CsI in the Room Temperature Ionic Liquid [C₄mim][NTf₂]. Journal of Physical Chemistry C, 2008, 112, 6551-6557.	3.1	50
149	Dissolved Argon Changes the Rate of Diffusion in Room Temperature Ionic Liquids: Effect of the Presence and Absence of Argon and Nitrogen on the Voltammetry of Ferrocene. Journal of Physical Chemistry C, 2009, 113, 7750-7754.	3.1	50
150	Investigating the mechanism of the H2-assisted selective catalytic reduction (SCR) of NOx with octane using fast cycling transient in situ DRIFTS-MS analysis. Journal of Catalysis, 2010, 276, 49-55.	6.2	50
151	Removal of naphthenic acids from crude oil using amino acid ionic liquids. Fuel, 2013, 108, 715-722.	6.4	50
152	Diffusion, Ion Pairing and Aggregation in 1â€Ethylâ€3â€Methylimidazoliumâ€Based Ionic Liquids Studied by ¹H and ¹⁹F PFG NMR: Effect of Temperature, Anion and Glucose Dissolution. ChemPhysChem, 2018, 19, 1081-1088.	2.1	50
153	Effect of solvent on the hydrogenation of 4-phenyl-2-butanone over Pt based catalysts. Journal of Catalysis, 2015, 330, 344-353.	6.2	49
154	Electrochemical Ammonia Gas Sensing in Nonaqueous Systems: A Comparison of Propylene Carbonate with Room Temperature Ionic Liquids. Electroanalysis, 2007, 19, 2194-2201.	2.9	48
155	Effect of metal dispersion and support structure of Ni/silicalite-1 catalysts on non-thermal plasma (NTP) activated CO2 hydrogenation. Applied Catalysis B: Environmental, 2020, 272, 119013.	20.2	48
156	Polymer-supported phosphoramidites: highly efficient and recyclable catalysts for asymmetric hydrogenation of dimethylitaconate and dehydroamino acids and esters. Tetrahedron: Asymmetry, 2003, 14, 1517-1527.	1.8	47
157	Elucidation of the Electrochemical Oxidation Pathway of Ammonia in Dimethylformamide and the Room Temperature Ionic Liquid, 1-Ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide. Electroanalysis, 2004, 16, 888-896.	2.9	47
158	Electroreduction of Sulfur Dioxide in Some Room-Temperature Ionic Liquids. Journal of Physical Chemistry C, 2008, 112, 3398-3404.	3.1	47
159	Extraction of Electrode Kinetic Parameters from Microdisc Voltammetric Data Measured under Transport Conditions Intermediate between Steady-State Convergent and Transient Linear Diffusion As Typically Applies to Room Temperature Ionic Liquids. Journal of Physical Chemistry B, 2008, 112, 7560-7565.	2.6	46
160	The Electrochemical Reduction of Hydrogen Sulfide on Platinum in Several Room Temperature Ionic Liquids. Journal of Physical Chemistry C, 2008, 112, 7725-7730.	3.1	46
161	TAP studies of CO oxidation over CuMnO and Au/CuMnO catalysts. Journal of Catalysis, 2010, 276, 38-48.	6.2	46
162	TAP studies of ammonia decomposition over Ru and Ir catalysts. Physical Chemistry Chemical Physics, 2011, 13, 12892.	2.8	46

#	Article	IF	Citations
163	Oxidative dehydrogenation of propane with N2O over Fe-ZSM-5 and Feâ€“SiO2: Influence of the iron species and acid sites. Applied Catalysis A: General, 2012, 441-442, 30-41.	4.3	46
164	Assessing the surface modifications following the mechanochemical preparation of a Ag/Al₂O₃ selective catalytic reduction catalyst. Catalysis Science and Technology, 2014, 4, 531-539.	4.1	46
165	Use of a batch rotating photocatalytic contactor for the degradation of organic pollutants in wastewater. Applied Catalysis B: Environmental, 2001, 30, 49-60.	20.2	45
166	Using XPS to determine solute solubility in room temperature ionic liquids. Analyst, The, 2007, 132, 196.	3.5	45
167	Liquid Structure of the Ionic Liquid, 1-Methyl-4-cyanopyridinium Bis{(trifluoromethyl)sulfonyl}imide Determined from Neutron Scattering and Molecular Dynamics Simulations. Journal of Physical Chemistry B, 2008, 112, 8049-8056.	2.6	45
168	Importance of surface carbide formation on the activity and selectivity of Pd surfaces in the selective hydrogenation of acetylene. Surface Science, 2016, 646, 45-49.	1.9	45
169	Further development of the predictive models for physical properties of pure ionic liquids: Thermal conductivity and heat capacity. Journal of Chemical Thermodynamics, 2018, 118, 1-15.	2.0	45
170	Deactivation and regeneration of ruthenium on silica in the liquid-phase hydrogenation of butan-2-one. Journal of Catalysis, 2009, 265, 80-88.	6.2	44
171	An efficient and flexible synthesis of model lignin oligomers. Green Chemistry, 2013, 15, 3031.	9.0	44
172	Significance of Î²-dehydrogenation in ethanol electro-oxidation on platinum doped with Ru, Rh, Pd, Os and Ir. Physical Chemistry Chemical Physics, 2014, 16, 13248-13254.	2.8	44
173	A novel methodology for assessing the environmental sustainability of ionic liquids used for CO₂ capture. Faraday Discussions, 2016, 192, 283-301.	3.2	44
174	Influence of Fluorination on the Solubilities of Carbon Dioxide, Ethane, and Nitrogen in 1-n-Fluoro-alkyl-3-methylimidazolium Bis(n-fluoroalkylsulfonyl)amide Ionic Liquids. Journal of Physical Chemistry B, 2017, 121, 426-436.	2.6	44
175	A Comparative Study on the Reactivity of Electrogenerated Bromine with Cyclohexene in Acetonitrile and the Room Temperature Ionic Liquid, 1-Butyl-3-methylimidazolium Bis[(trifluoromethyl)sulfonyl]imide. Journal of Physical Chemistry B, 2004, 108, 16322-16327.	2.6	43
176	Identifying critical factors in the regeneration of NOx-trap materials under realistic conditions using fast transient techniques. Applied Catalysis B: Environmental, 2007, 72, 178-186.	20.2	43
177	Biobutanol as Fuel for Direct Alcohol Fuel Cellsâ€”Investigation of Sn-Modified Pt Catalyst for Butanol Electro-oxidation. ACS Applied Materials & Interfaces, 2016, 8, 12859-12870.	8.0	43
178	Selective hydrogenation of acetylene over Cu(211), Ag(211) and Au(211): Horiutiâ€“Polanyi mechanism vs. non-Horiutiâ€“Polanyi mechanism. Catalysis Science and Technology, 2017, 7, 1508-1514.	4.1	43
179	Thermal Conductivity of [C<I>_n</I>mim] [(CF₃SO₂)₂ and [C₄mim] [BF₄] IoNanofluids with Carbon Nanotubesâ€”Measurement, Theory and Structural Characterization. Journal of Nanofluids, 2013, 2, 55-62.	2.7	43
180	Lewis Acid Platinum Complexes of Conformationally Flexible NUPHOS Diphosphines:Â Highly Efficient Catalysts for the Carbonylâ^'Ene Reaction. Organometallics, 2005, 24, 5945-5955.	2.3	42

#	Article	IF	Citations
181	Speciation of chloroindate(iii) ionic liquids. Dalton Transactions, 2010, 39, 8679.	3.3	42
182	A Comparative Study on the Thermophysical Properties for Two Bis[(trifluoromethyl)sulfonyl]imide-Based Ionic Liquids Containing the Trimethyl-Sulfonium or the Trimethyl-Ammonium Cation in Molecular Solvents. Journal of Physical Chemistry B, 2013, 117, 1389-1402.	2.6	42
183	Critical role of water in the direct oxidation of CO and hydrocarbons in diesel exhaust after treatment catalysis. Applied Catalysis B: Environmental, 2014, 147, 764-769.	20.2	42
184	CO multipulse TAP studies of 2% Pt/CeO2 catalyst: Influence of catalyst pretreatment and temperature on the number of active sites observed. Journal of Catalysis, 2008, 253, 303-311.	6.2	41
185	Neutron Scattering of Aromatic and Aliphatic Liquids. ChemPhysChem, 2016, 17, 2043-2055.	2.1	41
186	The use of binary mixtures of 1-butyl-1-methylpyrrolidinium bis{(trifluoromethyl)sulfonyl}imide and aliphatic nitrile solvents as electrolyte for supercapacitors. Electrochimica Acta, 2016, 220, 146-155.	5.2	41
187	Enhancing the activity and tuning the mechanism of formic acid oxidation at tetrahexahedral Pt nanocrystals by Au decoration. Physical Chemistry Chemical Physics, 2012, 14, 16415.	2.8	40
188	Steam reforming of ethanol over Co3O4â€“Fe2O3 mixed oxides. International Journal of Hydrogen Energy, 2013, 38, 8263-8275.	7.1	40
189	A Method for Studying the Structure of Low-Temperature Ionic Liquids by XAFS. Analytical Chemistry, 1999, 71, 4572-4574.	6.5	39
190	Electrochemistry of phenol in bis{(trifluoromethyl)sulfonyl}amide ([NTf2]â^') based ionic liquids. Journal of Electroanalytical Chemistry, 2006, 588, 27-31.	3.8	39
191	Mechanistic Studies of the Electro-oxidation Pathway of Ammonia in Several Room-Temperature Ionic Liquids. Journal of Physical Chemistry C, 2007, 111, 9562-9572.	3.1	39
192	Behavior of the Heterogeneous Electron-Transfer Rate Constants of Arenes and Substituted Anthracenes in Room-Temperature Ionic Liquids. Journal of Physical Chemistry C, 2008, 112, 1650-1657.	3.1	39
193	Solid and liquid charge-transfer complex formation between 1-methylnaphthalene and 1-alkyl-cyanopyridinium bis{(trifluoromethyl)sulfonyl}imide ionic liquids. Physical Chemistry Chemical Physics, 2010, 12, 1842.	2.8	39
194	Reaction Mechanisms of Crotonaldehyde Hydrogenation on Pt(111): Density Functional Theory and Microkinetic Modeling. Journal of Physical Chemistry C, 2011, 115, 19819-19827.	3.1	39
195	Effect of cation structure on the oxygen solubility and diffusivity in a range of bis{(trifluoromethyl)sulfonyl}imide anion based ionic liquids for lithiumâ€“air battery electrolytes. Physical Chemistry Chemical Physics, 2016, 18, 11251-11262.	2.8	39
196	Electrochemical Reduction of Benzoic Acid and Substituted Benzoic Acids in Some Room Temperature Ionic Liquids. Journal of Physical Chemistry C, 2008, 112, 12966-12973.	3.1	38
197	Speciation of Chlorometallate Ionic Liquids Based on Gallium(III) and Indium(III). Australian Journal of Chemistry, 2010, 63, 845.	0.9	38
198	Thermophysical and Electrochemical Properties of Ethereal Functionalised Cyclic Alkylammoniumâ€based Ionic Liquids as Potential Electrolytes for Electrochemical Applications. ChemPhysChem, 2017, 18, 2040-2057.	2.1	38

#	Article	IF	Citations
199	Recent advances in non-thermal plasma (NTP) catalysis towards C1 chemistry. Chinese Journal of Chemical Engineering, 2020, 28, 2010-2021.	3.5	38
200	Heterogeneous Oxidation of Pyrimidine and Alkyl Thioethers in Ionic Liquids over Mesoporous Ti or Ti/Ge Catalysts. Chemistry - A European Journal, 2004, 10, 4640-4646.	3.3	37
201	Overcoming hydrolytic sensitivity and low solubility of phosphitylation reagents by combining ionic liquids with mechanochemistry. Chemical Communications, 2011, 47, 5846.	4.1	37
202	Physicalâ€“Chemical Characterization of Binary Mixtures of 1-Butyl-1-methylpyrrolidinium Bis{(trifluoromethyl)sulfonyl}imide and Aliphatic Nitrile Solvents as Potential Electrolytes for Electrochemical Energy Storage Applications. Journal of Chemical & Engineering Data, 2017, 62, 376-390.	1.9	37
203	Aldol Condensation of 5-Hydroxymethylfurfural to Fuel Precursor over Novel Aluminum Exchanged-DTP@ZIF-8. ACS Sustainable Chemistry and Engineering, 2019, 7, 16215-16224.	6.7	37
204	Preparation of AgX (X = Cl, I) nanoparticles using ionic liquids. Nanotechnology, 2008, 19, 105603.	2.6	36
205	Multiple Evidence for Gold(I)â‹…â‹…â‹…Silver(I) Interactions in Solution. Chemistry - A European Journal, 2009, 15, 6222-6233.	3.3	36
206	Pretreatment Effect on Pt/CeO₂ Catalyst in the Selective Hydrodechlorination of Trichloroethylene. Journal of Physical Chemistry C, 2010, 114, 17675-17682.	3.1	36
207	Effect of Mass Transport on the Electrochemical Oxidation of Alcohols Over Electrodeposited Film and Carbon-Supported Pt Electrodes. Topics in Catalysis, 2018, 61, 240-253.	2.8	36
208	Electrode Kinetics and Mechanism of Iodine Reduction in the Room-Temperature Ionic Liquid [C4mim][NTf2]. Journal of Physical Chemistry C, 2008, 112, 10976-10981.	3.1	35
209	Voltammetric Currents in Room Temperature Ionic Liquids Can Reflect Solutes Other Than the Electroactive Species and Are Influenced by Carbon Dioxide. Journal of Physical Chemistry B, 2009, 113, 2805-2809.	2.6	35
210	An efficient Cu(<scp>ii</scp>)-bis(oxazoline)-based polymer immobilised ionic liquid phase catalyst for asymmetric carbonâ€“carbon bond formation. Green Chemistry, 2014, 16, 1470-1479.	9.0	35
211	Understanding the CO Oxidation on Pt Nanoparticles Supported on MOFs by Operando XPS. ChemCatChem, 2018, 10, 4238-4242.	3.7	35
212	One-Pot Multistep Synthetic Strategies for the Production of Fenpropimorph Using an Ionic Liquid Solvent. Organic Process Research and Development, 2006, 10, 94-102.	2.7	34
213	The electrochemical reduction of the purines guanine and adenine at platinum electrodes in several room temperature ionic liquids. Analytica Chimica Acta, 2010, 659, 115-121.	5.4	33
214	Are Alkyl Sulfate-Based Protic and Aprotic Ionic Liquids Stable with Water and Alcohols? A Thermodynamic Approach. Journal of Physical Chemistry B, 2013, 117, 1938-1949.	2.6	33
215	Inhibitory Effect of Phosphonium-Based Ionic Liquids on Coal Oxidation. Energy & Fuels, 2014, 28, 4333-4341.	5.1	33
216	Nonthermal plasma (NTP) activated metalâ€“organic frameworks (MOFs) catalyst for catalytic CO₂ hydrogenation. AICHE Journal, 2020, 66, e16853.	3.6	33

#	Article	IF	Citations
217	Oxidation of Severalp-Phenylenediamines in Room Temperature Ionic Liquids:â€‰ Estimation of Transport and Electrode Kinetic Parameters. Journal of Physical Chemistry C, 2008, 112, 6993-7000.	3.1	32
218	SO2 Saturation of the Room Temperature Ionic Liquid [C2mim][NTf2] Much Reduces the Activation Energy for Diffusion. Journal of Physical Chemistry B, 2009, 113, 1007-1011.	2.6	32
219	Regeneration mechanism of a Lean NOx Trap (LNT) catalyst in the presence of NO investigated using isotope labelling techniques. Journal of Catalysis, 2012, 285, 177-186.	6.2	32
220	Use of Short Time-on-Stream Attenuated Total Internal Reflection Infrared Spectroscopy To Probe Changes in Adsorption Geometry for Determination of Selectivity in the Hydrogenation of Citral. ACS Catalysis, 2014, 4, 2470-2478.	11.2	32
221	Naphthenic acid extraction and speciation from Doba crude oil using carbonate-based ionic liquids. Fuel, 2015, 146, 60-68.	6.4	32
222	Microelectrode Voltammetry of Dioxygen Reduction in a Phosphonium Cation-Based Room-Temperature Ionic Liquid: Quantitative Studies. Journal of Physical Chemistry C, 2015, 119, 2716-2726.	3.1	32
223	Assessing the effect of reducing agents on the selective catalytic reduction of NO_x over Ag/Al₂O₃ catalysts. Catalysis Science and Technology, 2016, 6, 1661-1666.	4.1	32
224	Two-Dimensional Covalent Crystals by Chemical Conversion of Thin van der Waals Materials. Nano Letters, 2019, 19, 6475-6481.	9.1	32
225	Use of a rotating disc reactor to investigate the heterogeneously catalysed oxidation of cinnamyl alcohol in toluene and ionic liquids. Journal of Catalysis, 2005, 232, 355-365.	6.2	31
226	A Comparative Study of the Synthesis of 3-Substituted Catechols using an Enzymatic and a Chemoenzymatic Method. Advanced Synthesis and Catalysis, 2007, 349, 727-739.	4.3	31
227	Volumetric properties and enthalpies of solution of alcohols CkH2k+1OH (k=1, 2, 6) in 1-methyl-3-alkylimidazolium bis(trifluoromethylsulfonyl)imide {[C1Cnlm][NTf2] n=2, 4, 6, 8, 10} ionic liquids. Journal of Chemical Thermodynamics, 2011, 43, 1708-1718.	2.0	31
228	HfN Nanoparticles: An Unexplored Catalyst for the Electrocatalytic Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2019, 58, 15464-15470.	13.8	31
229	Understanding the Dehydrogenation Mechanism of Tetrahydrocarbazole over Palladium Using a Combined Experimental and Density Functional Theory Approach. Journal of Physical Chemistry C, 2007, 111, 6434-6439.	3.1	30
230	The waterâ€“gas shift reaction over CeO2/CuO: Operando SSITKAâ€“DRIFTSâ€“mass spectrometry study of low temperature mechanism. International Journal of Hydrogen Energy, 2014, 39, 4095-4101.	7.1	30
231	Synthesis and Thermophysical Properties of Etherâ€Functionalized Sulfonium Ionic Liquids as Potential Electrolytes for Electrochemical Applications. ChemPhysChem, 2016, 17, 3992-4002.	2.1	30
232	Dry reforming of methane on bimetallic Ptâ€“Ni@CeO₂catalyst: ain situDRIFTS-MS mechanistic study. Catalysis Science and Technology, 2021, 11, 5260-5272.	4.1	30
233	First EXAFS studies on aurophilic interactions in solution. Chemical Communications, 2005, , 4970.	4.1	29
234	Ionic liquid characteristics of 1-alkyl-n-cyanopyridinium and 1-alkyl-n-(trifluoromethyl)pyridinium salts. New Journal of Chemistry, 2008, 32, 1953.	2.8	29

#	Article	IF	Citations
235	Gold imidazolium-based ionic liquids, efficient catalysts for cycloisomerization of Î³-acetylenic carboxylic acids. New Journal of Chemistry, 2009, 33, 102-106.	2.8	29
236	Investigation of the effect of the preparation method on the activity and stability of Au/CeZrO4 catalysts for the low temperature water gas shift reaction. Catalysis Today, 2012, 180, 131-138.	4.4	29
237	Structure and dynamics of aqueous 2-propanol: a THz-TDS, NMR and neutron diffraction study. Physical Chemistry Chemical Physics, 2015, 17, 30481-30491.	2.8	29
238	Ionic liquid-based nanofluids (ionanofluids) for thermal applications: an experimental thermophysical characterization. Pure and Applied Chemistry, 2019, 91, 1309-1340.	1.9	29
239	Investigating the Effect of NO on the Capture of CO2 Using Superbase Ionic Liquids for Flue Gas Applications. ACS Sustainable Chemistry and Engineering, 2019, 7, 3567-3574.	6.7	29
240	Electroreduction of N-methylphthalimide in room temperature ionic liquids under insonated and silent conditions. Ultrasonics Sonochemistry, 2005, 12, 423-428.	8.2	28
241	Electroreduction of Chlorine Gas at Platinum Electrodes in Several Room Temperature Ionic Liquids: Evidence of Strong Adsorption on the Electrode Surface Revealed by Unusual Voltammetry in Which Currents Decrease with Increasing Voltage Scan Rates. Journal of Physical Chemistry C, 2008, 112, 19477-19483.	3.1	28
242	Effect of the Presence of MEA on the CO₂ Capture Ability of Superbase Ionic Liquids. Journal of Chemical & Engineering Data, 2016, 61, 1092-1100.	1.9	28
243	Defects-healing of SAPO-34 membrane by post-synthesis modification using organosilica for selective CO2 separation. Journal of Membrane Science, 2019, 575, 80-88.	8.2	28
244	Surfactant-free Synthesis of Spiky Hollow Agâ€“Au Nanostars with Chemically Exposed Surfaces for Enhanced Catalysis and Single-Particle SERS. Jacs Au, 2022, 2, 178-187.	7.9	28
245	Liquid-phase oxidation of a pyrimidine thioether on Ti-SBA-15 and UL-TS-1 catalysts in ionic liquids. Journal of Catalysis, 2005, 232, 60-67.	6.2	27
246	Evaluation of a Microfluidic Device for the Electrochemical Determination of Halide Content in Ionic Liquids. Analytical Chemistry, 2009, 81, 1628-1637.	6.5	27
247	Evaluation of Pt and Re oxidation state in a pressurized reactor: difference in reduction between gas and liquid phase. Chemical Communications, 2011, 47, 6590.	4.1	27
248	An ether-functionalised cyclic sulfonium based ionic liquid as an electrolyte for electrochemical double layer capacitors. Journal of Power Sources, 2016, 326, 549-559.	7.8	27
249	Effect of the carburization of MoO3-based catalysts on the activity for butane hydroisomerization. Applied Catalysis A: General, 2008, 344, 30-35.	4.3	26
250	The electrochemical oxidation of catechol and dopamine on platinum in 1-Ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide ([C2mim][NTf2]) and 1-Butyl-3-methylimidazolium tetrafluoroborate ([C4mim][BF4]): Adsorption effects in ionic liquid voltammetry. Journal of Electroanalytical Chemistry, 2010, 646, 11-17.	3.8	26
251	Application of halohydrocarbons for the re-dispersion of gold particles. Catalysis Science and Technology, 2014, 4, 729.	4.1	26
252	Combined In Situ XAFS/DRIFTS Studies of the Evolution of Nanoparticle Structures from Molecular Precursors. Chemistry of Materials, 2017, 29, 7515-7523.	6.7	26

#	Article	IF	Citations
253	Kinetic Study of the Metal Triflate Catalyzed Benzoylation of Anisole in an Ionic Liquid. Industrial & Engineering Chemistry Research, 2006, 45, 6640-6647.	3.7	25
254	The electrochemical oxidation and reduction of nitrate ions in the room temperature ionic liquid [C2mim][NTf2]; the latter behaves as a â€˜meltâ€™ rather than an â€˜organic solventâ€™. New Journal of Chemistry, 2007, 31, 966-972.	2.8	25
255	Solvent-modulated reactivity of PCl3 with amines. Green Chemistry, 2008, 10, 660.	9.0	25
256	Novel rutheniumâ€“terpyridyl complex for direct oxidation of amines to nitriles. Catalysis Science and Technology, 2013, 3, 2646.	4.1	25
257	Liquidâ€“Liquid Equilibria of Ionic Liquidsâ€“Waterâ€“Acetic Acid Mixtures. Journal of Chemical & Engineering Data, 2017, 62, 653-664.	1.9	25
258	Heterocyclic bismuth(<scp>iii</scp>) compounds with transannular Nâ†’Bi interactions as catalysts for the oxidation of thiophenol to diphenyldisulfide. Catalysis Science and Technology, 2017, 7, 5343-5353.	4.1	25
259	Low-temperature oxidation reactions of ethane over a Pt/Al2O3 catalyst. Journal of Catalysis, 2003, 219, 206-213.	6.2	24
260	Comparative Study of Diastereoisomer Interconversion in Chiral BINOL-ate and Diamine Platinum Complexes of Conformationally Flexible NUPHOS Diphosphines. Organometallics, 2004, 23, 1055-1064.	2.3	24
261	Asymmetric Carbonâ€Carbon Bond Forming Reactions Catalysed by Metal(II) Bis(oxazoline) Complexes Immobilized using Supported Ionic Liquids. Advanced Synthesis and Catalysis, 2011, 353, 995-1004.	4.3	24
262	An in situ spatially resolved method to probe gas phase reactions through a fixed bed catalyst. Catalysis Science and Technology, 2012, 2, 1811.	4.1	24
263	Phase Behaviour, Interactions, and Structural Studies of (Amines+Ionic Liquids) Binary Mixtures. ChemPhysChem, 2012, 13, 1825-1835.	2.1	24
264	High energy resolution fluorescence detection XANES â€“ an in situ method to study the interaction of adsorbed molecules with metal catalysts in the liquid phase. Catalysis Science and Technology, 2013, 3, 1497.	4.1	24
265	Evaluation of an in situ spatial resolution instrument for fixed beds through the assessment of the invasiveness of probes and a comparison with a micro-kinetic model. Journal of Catalysis, 2014, 319, 239-246.	6.2	24
266	Structured silicaliteâ€1 encapsulated Ni catalyst supported on <scp>SiC</scp> foam for dry reforming of methane. AICHE Journal, 2021, 67, e17126.	3.6	24
267	Plasma Polymerization of 2-Iodothiophene. Chemistry of Materials, 1996, 8, 916-921.	6.7	23
268	Bimetallic effects in the liquid-phase hydrogenation of 2-butanone. Journal of Catalysis, 2005, 236, 270-281.	6.2	23
269	An Electrochemical Study of PCl3and POCl3in the Room Temperature Ionic Liquid [C4mpyrr][N(Tf)2]. Journal of Physical Chemistry B, 2006, 110, 22035-22042.	2.6	23
270	Electrochemical Oxidation of Hydrogen Sulfide at Platinum Electrodes in Room Temperature Ionic Liquids: Evidence for Significant Accumulation of H2S at the Pt/1-Butyl-3-methylimidazolium Trifluoromethylsulfonate Interface. Journal of Physical Chemistry C, 2009, 113, 10997-11002.	3.1	23

#	Article	IF	Citations
271	Selective hydrogenation of halogenated arenes using porous manganese oxide (OMS-2) and platinum supported OMS-2 catalysts. Faraday Discussions, 2016, 188, 451-466.	3.2	23
272	Research Progress in the Selective Catalytic Reduction of NOx by H2 in the Presence of O2. Catalysis Surveys From Asia, 2018, 22, 146-155.	2.6	23
273	Thermal Conductivity Enhancement Phenomena in Ionic Liquid-Based Nanofluids (Ionanofluids). Australian Journal of Chemistry, 2019, 72, 21.	0.9	23
274	Dehydrochlorination of PVC in multi-layered blisterpacks using ionic liquids. Green Chemistry, 2020, 22, 5132-5142.	9.0	23
275	Ionic Liquids for the Nuclear Industry: A Radiochemical, Structural, and Electrochemical Investigation. ACS Symposium Series, 2002, , 162-177.	0.5	22
276	Green photochemistry: photo-Friedelâ€“Crafts acylations of 1,4-naphthoquinone in room temperature ionic liquids. Green Chemistry, 2009, 11, 1867.	9.0	22
277	Abatement of nitrous oxide over natural and iron modified natural zeolites. Applied Catalysis A: General, 2011, 407, 67-75.	4.3	22
278	Friedelâ€“Crafts Alkylation of Aromatics with Benzyl Alcohol over Goldâ€Modified Silica. ChemCatChem, 2011, 3, 119-121.	3.7	22
279	The electroreduction of benzoic acid: voltammetric observation of adsorbed hydrogen at a platinum microelectrode in room temperature ionic liquids. Physical Chemistry Chemical Physics, 2013, 15, 2031-2036.	2.8	22
280	An in situ spatially resolved analytical technique to simultaneously probe gas phase reactions and temperature within the packed bed of a plug flow reactor. Analyst, The, 2013, 138, 2858.	3.5	22
281	Continuous flow gas phase photoreforming of methanol at elevated reaction temperatures sensitised by Pt/TiO₂. Reaction Chemistry and Engineering, 2016, 1, 649-657.	3.7	22
282	Understanding the Competitive Gas Absorption of CO₂ and SO₂ in Superbase Ionic Liquids. Industrial & Engineering Chemistry Research, 2018, 57, 17033-17042.	3.7	22
283	Effect of Ball-Milling Pretreatment of Cellulose on Its Photoreforming for H₂ Production. ACS Sustainable Chemistry and Engineering, 2022, 10, 4862-4871.	6.7	22
284	Ruthenium Complexes of the 1,4-Bis(diphenylphosphino)-1,3-butadiene-Bridged Diphosphine 1,2,3,4-Me4-NUPHOS:â€‰ Solvent-Dependent Interconversion of Four- and Six-Electron Donor Coordination and Transfer Hydrogenation Activity. Organometallics, 2003, 22, 1452-1462.	2.3	21
285	Highly Efficient Asymmetric Hetero-Dielsâ^'Alder Reactions of Carbonyl Compounds Catalyzed by Lewis Acid Platinum Complexes of Conformationally Flexible NUPHOS-Type Diphosphines. Organometallics, 2004, 23, 6127-6133.	2.3	21
286	Comparison of mass transfer effects in the heterogeneously catalysed hydrogenation of phenyl acetylene in heptane and an ionic liquid. Chemical Engineering Science, 2006, 61, 6995-7006.	3.8	21
287	Remarkable stability of ionic gold supported on sulfated lanthanum oxide. Chemical Communications, 2009, , 4889.	4.1	21
288	Nano-structural investigation of Ag/Al2O3 catalyst for selective removal of O2 with excess H2 in the presence of C2H4. Applied Catalysis A: General, 2011, 391, 187-193.	4.3	21

#	Article	IF	Citations
289	Probing chemistry and kinetics of reactions in heterogeneous catalysts. Chemical Science, 2013, 4, 3484.	7.4	21
290	Chiral supported ionic liquid phase (CSILP) catalysts for greener asymmetric hydrogenation processes. Catalysis Today, 2013, 200, 63-73.	4.4	21
291	CO2 capture and electrochemical conversion using superbasic [P66614][124Triz]. Faraday Discussions, 2015, 183, 389-400.	3.2	21
292	Confinement Effects on the Benzene Orientational Structure. Angewandte Chemie - International Edition, 2018, 57, 4565-4570.	13.8	21
293	Ionic Liquid Effect on the Reversal of Configuration for the Magnesium(II) and Copper(II) Bis(oxazoline)â€Catalysed Enantioselective Dielsâ€“Alder Reaction. Advanced Synthesis and Catalysis, 2008, 350, 2473-2476.	4.3	20
294	Thermochemistry of Ionic Liquid-Catalyzed Reactions. Experimental and Theoretical Study of Chemical Equilibria of Isomerization and Transalkylation of tert-Butylbenzenes. Journal of Physical Chemistry A, 2008, 112, 11273-11282.	2.5	20
295	Evaluation of a simple disposable microband electrode device for amperometric gas sensing. Sensors and Actuators B: Chemical, 2013, 188, 978-987.	7.8	20
296	The addition of CO₂to four superbase ionic liquids: a DFT study. Physical Chemistry Chemical Physics, 2015, 17, 28674-28682.	2.8	20
297	Selective oxidation of a pyrimidine thioether using supported tantalum catalysts. Journal of Catalysis, 2005, 235, 184-194.	6.2	19
298	Synthesis of 3-(4-tert-butylphenyl)-2-propen-1-one, a precursor to LilialÂ®, via an aldol condensation in an ionic liquid. Green Chemistry, 2005, 7, 224-229.	9.0	19
299	Palladium-catalyzed liquid-phase hydrogenation/hydrogenolysis of disulfides. Journal of Catalysis, 2007, 249, 93-101.	6.2	19
300	Friedelâ€'Crafts Benzoylation of Anisole in Ionic Liquids: Catalysis, Separation, and Recycle Studies. Organic Process Research and Development, 2008, 12, 1156-1163.	2.7	19
301	Development of a QSPR correlation for the parachor of 1,3-dialkyl imidazolium based ionic liquids. Fluid Phase Equilibria, 2009, 283, 31-37.	2.5	19
302	Small volume laboratory on a chip measurements incorporating the quartz crystal microbalance to measure the viscosity-density product of room temperature ionic liquids. Biomicrofluidics, 2010, 4, 14107.	2.4	19
303	Unraveling the H₂ Promotional Effect on Palladium-Catalyzed CO Oxidation Using a Combination of Temporally and Spatially Resolved Investigations. ACS Catalysis, 2018, 8, 8255-8262.	11.2	19
304	Combined spatially resolved operando spectroscopy: New insights into kinetic oscillations of CO oxidation on Pd/Î³-Al2O3. Journal of Catalysis, 2019, 373, 201-208.	6.2	19
305	Integration of Membrane Separation with Nonthermal Plasma Catalysis: A Proof-of-Concept for CO₂ Capture and Utilization. Industrial & Engineering Chemistry Research, 2020, 59, 8202-8211.	3.7	19
306	Small-Angle Scattering from Long-Chain Alkylimidazolium-Based Ionic Liquids. ACS Symposium Series, 2002, , 400-412.	0.5	18

#	Article	IF	Citations
307	Three primary kinetic characteristics observed in a pulse-response TAP experiment. Catalysis Today, 2007, 121, 255-260.	4.4	18
308	Selective synthesis of chlorophosphoramidites using ionic liquids. Green Chemistry, 2009, 11, 1391.	9.0	18
309	Acetaldehyde Production in the Direct Ethanol Fuel Cell: Mechanistic Elucidation by Density Functional Theory. Journal of Physical Chemistry C, 2012, 116, 7185-7188.	3.1	18
310	Tuning solute redox potentials by varying the anion component of room temperature ionic liquids. Chemical Communications, 2012, 48, 5784.	4.1	18
311	New methods in biomass depolymerisation: catalytic hydrogenolysis of barks. RSC Advances, 2013, 3, 21552.	3.6	18
312	Direct oxidation of amines to nitriles in the presence of ruthenium-terpyridyl complex immobilized on ILs/SILP. Catalysis Science and Technology, 2015, 5, 2696-2704.	4.1	18
313	Insights into the mechanism of electrochemical ozone production via water splitting on the Ni and Sb doped SnO₂ catalyst. Physical Chemistry Chemical Physics, 2017, 19, 3800-3806.	2.8	18
314	Self-Limiting Growth of Two-Dimensional Palladium between Graphene Oxide Layers. Nano Letters, 2019, 19, 4678-4683.	9.1	18
315	Thioethers oxidation on dispersed Ta-silica mesoporous catalysts in ionic liquids. Catalysis Today, 2006, 117, 126-132.	4.4	17
316	1,2-Cyclic sulfite and sulfate furanoside diesters: improved syntheses and stability. Tetrahedron, 2009, 65, 6341-6347.	1.9	17
317	DRIFTS/MS/Isotopic Labeling Study on the NO-Moderated Decomposition of a Silica-Supported Nickel Nitrate Catalyst Precursor. Journal of Physical Chemistry C, 2010, 114, 7839-7845.	3.1	17
318	Activation of Alkanes by Goldâ€Modified Lanthanum Oxide. ChemCatChem, 2011, 3, 394-398.	3.7	17
319	Investigating the promotional effect of methanol on the low temperature SCR reaction on Ag/Al2O3. Applied Catalysis B: Environmental, 2014, 160-161, 356-364.	20.2	17
320	Catalytic depolymerisation of suberin rich biomass with precious metal catalysts. Green Chemistry, 2018, 20, 2702-2705.	9.0	17
321	Non-thermal-plasma-activated de-NO _x catalysis. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170054.	3.4	17
322	Systematic study of H2 production from catalytic photoreforming of cellulose over Pt catalysts supported on TiO2. Chinese Journal of Chemical Engineering, 2020, 28, 2084-2091.	3.5	17
323	A design of a fixed bed plasma DRIFTS cell for studying the NTP-assisted heterogeneously catalysed reactions. Catalysis Science and Technology, 2020, 10, 1458-1466.	4.1	17
324	Dramatic liquid-phase dehydrogenation rate enhancements using gas-phase hydrogen acceptors. Journal of Catalysis, 2007, 251, 338-344.	6.2	16

#	Article	IF	Citations
325	Thermochemistry of Ionic Liquid-Catalyzed Reactions: Theoretical and Experimental Study of the Beckmann Rearrangementâ€"Kinetic or Thermodynamic Control?â€. Industrial & Engineering Chemistry Research, 2009, 48, 9809-9816.	3.7	16
326	Application of Asymmetric Marcusâ€"Hush Theory to Voltammetry in Room-Temperature Ionic Liquids. Journal of Physical Chemistry C, 2015, 119, 7360-7370.	3.1	16
327	Investigation of the oxygen storage capacity behaviour of three way catalysts using spatio-temporal analysis. Applied Catalysis B: Environmental, 2019, 258, 117918.	20.2	16
328	Microwave-assisted catalyst-free hydrolysis of fibrous cellulose for deriving sugars and biochemicals. Frontiers of Chemical Science and Engineering, 2019, 13, 718-726.	4.4	16
329	Photocatalytic Reforming of Biomass: What Role Will the Technology Play in Future Energy Systems. Topics in Current Chemistry, 2022, 380, .	5.8	16
330	Liquid Structure and Dynamics of Aqueous Isopropanol over Î³-Alumina. Journal of Physical Chemistry C, 2009, 113, 21342-21352.	3.1	15
331	Synthesis and Reactions of Enantiopure Substituted Benzene cisâ€Hexahydroâ€1,2â€diols. Advanced Synthesis and Catalysis, 2010, 352, 855-868.	4.3	15
332	Nucleoside phosphitylation using ionic liquid stabilised phosphorodiamidites and mechanochemistry. Chemical Communications, 2012, 48, 11969.	4.1	15
333	WC@meso-Pt coreâ€"shell nanostructures for fuel cells. Chemical Communications, 2013, 49, 11677.	4.1	15
334	Pressure effect on vibrational frequency and dephasing of 1-alkyl-3-methylimidazolium hexafluorophosphate ionic liquids. Journal of Chemical Physics, 2013, 139, 054510.	3.0	15
335	Structured Ni@<scp>NaA</scp> zeolite supported on silicon carbide foam catalysts for catalytic carbon dioxide methanation. AIChE Journal, 2020, 66, e17007.	3.6	15
336	Kinetic Study of Nonthermal Plasma Activated Catalytic CO2 Hydrogenation over Ni Supported on Silica Catalyst. Industrial & Engineering Chemistry Research, 2020, 59, 9478-9487.	3.7	15
337	Hydrogenation of benzoic acid to benzyl alcohol over Pt/SnO2. Applied Catalysis A: General, 2020, 593, 117420.	4.3	15
338	Negative apparent kinetic order in steady-state kinetics of the water-gas shift reaction over a Ptâ€"CeO2 catalyst. Catalysis Today, 2008, 138, 216-221.	4.4	14
339	Thermochemistry of Ionic Liquid Catalyzed Reactions. Experimental and Theoretical Study of Chemical Equilibria of Izomerization and Transalkylation of tert-Amylbenzenes. Journal of Physical Chemistry B, 2009, 113, 12704-12710.	2.6	14
340	Aromatic hydrocarbons and sulfur based catalyst deactivation for selective catalytic reduction of NOx. Catalysis Today, 2011, 164, 515-519.	4.4	14
341	The use of Short Time on Stream (STOS) transient kinetics to investigate the role of hydrogen in enhancing NOx reduction over silver catalysts. Journal of Catalysis, 2012, 295, 223-231.	6.2	14
342	Phase Equilibria of Binary and Ternary Systems Containing ILs, Dodecane, and Cyclohexanecarboxylic Acid. Separation Science and Technology, 2012, 47, 312-324.	2.5	14

#	Article	IF	Citations
343	The potential of electron beam radiation for simultaneous surface modification and bioresorption control of PLLA. Journal of Biomedical Materials Research - Part A, 2012, 100A, 2223-2229.	4.0	14
344	Time-Resolved DRIFTS, MS, and Resistance Study of SnO2 Materials: The Role of Surface Hydroxyl Groups in Formation of Donor States. Journal of Physical Chemistry C, 2013, 117, 4158-4167.	3.1	14
345	Activity Enhancement of Tetrahexahedral Pd Nanocrystals by Bi Decoration towards Ethanol Electrooxidation in Alkaline Media. Electrochimica Acta, 2015, 162, 290-299.	5.2	14
346	Development of a diffuse reflectance infrared fourier transform spectroscopy (DRIFTS) cell for the in situ analysis of co-electrolysis in a solid oxide cell. Faraday Discussions, 2015, 182, 97-111.	3.2	14
347	Mercury capture on a supported chlorocuprate(<scp>ii</scp>) ionic liquid adsorbent studied using operando synchrotron X-ray absorption spectroscopy. Dalton Transactions, 2016, 45, 18946-18953.	3.3	14
348	Effects of heat treatment atmosphere on the structure and activity of Pt₃Sn nanoparticle electrocatalysts: a characterisation case study. Faraday Discussions, 2018, 208, 555-573.	3.2	14
349	Thermophysical Properties of 1-Butyl-3-methylimidazolium tris(pentafluoroethyl)trifluorophosphate, [C₄mim][(C₂F₅)₃PF₃], and of Its IoNanofluid with Multi-Walled Carbon Nanotubes. Journal of Chemical & Engineering Data, 2021, 66, 1717-1729.	1.9	14
350	Gas-Phase Photocatalytic Oxidation of Dichlorobutenes. Environmental Science & Technology, 2001, 35, 2823-2827.	10.0	13
351	Visualization of water vapour flow in a packed bed adsorber by near-infrared diffused transmittance tomography. Chemical Engineering Science, 2011, 66, 6407-6423.	3.8	13
352	A simultaneous voltammetric temperature and humidity sensor. Analyst, The, 2012, 137, 4951.	3.5	13
353	A Combined Raman Spectroscopic and Thermogravimetric Analysis Study on Oxidation of Coal with Different Ranks. Journal of Analytical Methods in Chemistry, 2015, 2015, 1-8.	1.6	13
354	Aqueous-phase tandem catalytic conversion of xylose to furfuryl alcohol over [Al]-SBA-15 molecular sieves. Catalysis Science and Technology, 2019, 9, 5350-5358.	4.1	13
355	Scale-up of cluster beam deposition to the gram scale with the matrix assembly cluster source for heterogeneous catalysis (propylene combustion). AIP Advances, 2020, 10, 025314.	1.3	13
356	Correlating the strength of reducing agent adsorption with Ag/Al2O3 catalyst performances in selective catalytic reduction (SCR) of NOx. Catalysis Today, 2022, 384-386, 274-278.	4.4	13
357	Chloride Determination in Ionic Liquids. ACS Symposium Series, 2005, , 244-258.	0.5	12
358	Dimerisation of cyclooctene using Grubbsâ€™ catalysts. Applied Catalysis A: General, 2011, 408, 54-62.	4.3	12
359	Mechanochemical preparation of Ag catalysts for the n-octane-SCR de-NOx reaction: Structural and reactivity effects. Catalysis Today, 2015, 246, 198-206.	4.4	12
360	A kinetic analysis methodology to elucidate the roles of metal, support and solvent for the hydrogenation of 4-phenyl-2-butanone over Pt/TiO2. Journal of Catalysis, 2015, 330, 362-373.	6.2	12

#	Article	IF	Citations
361	Acyclic and Cyclic Alkyl and Etherâ€Functionalised Sulfonium Ionic Liquids Based on the [TFSI]^{â^'} and [FSI]^{â^'} Anions as Potential Electrolytes for Electrochemical Applications. ChemPhysChem, 2018, 19, 3226-3236.	2.1	12
362	Novelty of iron-exchanged heteropolyacid encapsulated inside ZIF-8 as an active and superior catalyst in the esterification of furfuryl alcohol and acetic acid. Reaction Chemistry and Engineering, 2019, 4, 1790-1802.	3.7	12
363	Catalytic Hydrogenation of Short Chain Carboxylic Acids Typical of Model Compound Found in Bio-Oils. Industrial & Engineering Chemistry Research, 2019, 58, 7998-8008.	3.7	12
364	The enhanced adsorption of cadmium on hydrous aluminium(III) hydroxide by ethylenediaminetetraacetate. Physical Chemistry Chemical Physics, 2000, 2, 1273-1279.	2.8	11
365	Formation of Ammonia during the NOâ^'H₂ Reaction over Pt/ZrO₂. Journal of Physical Chemistry C, 2008, 112, 18157-18163.	3.1	11
366	Measuring the solubility of benzoic acid in room temperature ionic liquids using chronoamperometric techniques. Journal of Physical Organic Chemistry, 2009, 22, 69-76.	1.9	11
367	Density Functional Theory Study on the Cleavage Mechanism of the Carbonyl Bond in Amides on Flat and Stepped Ru Surfaces: Hydrogen-Induced or Direct Câ€“O Bond Breaking?. Journal of Physical Chemistry C, 2012, 116, 18713-18721.	3.1	11
368	Exploiting the use of ionic liquids to access phosphorodiamidites. RSC Advances, 2012, 2, 2988.	3.6	11
369	Combined studies of DFT atomistic modelling and in situ FTIR spectroscopy on surface oxidants and CO oxidation at Ru electrodes. Journal of Electroanalytical Chemistry, 2013, 688, 216-223.	3.8	11
370	Nonâ€Thermal Plasma Activation of Goldâ€Based Catalysts for Lowâ€Temperature Waterâ€“Gas Shift Catalysis. Angewandte Chemie, 2017, 129, 5671-5675.	2.0	11
371	Complex Oxides Based on Silver, Bismuth, and Tungsten: Syntheses, Characterization, and Photoelectrochemical Behavior. Journal of Physical Chemistry C, 2018, 122, 13473-13480.	3.1	11
372	SCILLs as selective catalysts for the oxidation of aromatic alcohols. Catalysis Today, 2019, 333, 140-146.	4.4	11
373	Kinetics of Water Gas Shift Reaction on Au/CeZrO4: A Comparison Between Conventional Heating and Dielectric Barrier Discharge (DBD) Plasma Activation. Topics in Catalysis, 2020, 63, 363-369.	2.8	11
374	Arc Synthesis, Crystal Structure, and Photoelectrochemistry of Copper(I) Tungstate. ACS Applied Materials & Interfaces, 2021, 13, 32865-32875.	8.0	11
375	Factors affecting bubble size in ionic liquids. Physical Chemistry Chemical Physics, 2017, 19, 14306-14318.	2.8	11
376	The energetics of tetrahydrocarbazole aromatization over Pd(111): A computational analysis. Journal of Chemical Physics, 2008, 128, 105104.	3.0	10
377	An investigation of the role of surface nitrate species in the oxidation of propene on a Pt-based diesel oxidation catalyst. Catalysis Science and Technology, 2013, 3, 2349.	4.1	10
378	Changed reactivity of the 1-bromo-4-nitrobenzene radical anion in a room temperature ionic liquid. Physical Chemistry Chemical Physics, 2013, 15, 6382.	2.8	10

#	Article	IF	Citations
379	The electrochemical reduction of 1-bromo-4-nitrobenzene at zinc electrodes in a room-temperature ionic liquid: a facile route for the formation of arylzinc compounds. Physical Chemistry Chemical Physics, 2014, 16, 4478.	2.8	10
380	Enhancement of whole cell dioxygenase biotransformations of haloarenes by toxic ionic liquids. RSC Advances, 2014, 4, 19916-19924.	3.6	10
381	Comment on â€œThe Critical evaluation of in situ probe techniques for catalytic honeycomb monolithsâ€• by Hettel et al.. Catalysis Today, 2014, 236, 206-208.	4.4	10
382	The effects of stepped sites and ruthenium adatom decoration on methanol dehydrogenation over platinum-based catalyst surfaces. Catalysis Today, 2015, 242, 230-239.	4.4	10
383	Using chiral ionic liquid additives to enhance asymmetric induction in a Dielsâ€“Alder reaction. Dalton Transactions, 2017, 46, 1704-1713.	3.3	10
384	The Structure of Ethylbenzene, Styrene and Phenylacetylene Determined by Total Neutron Scattering. ChemPhysChem, 2017, 18, 2541-2548.	2.1	10
385	Spatially-resolved investigation of the water inhibition of methane oxidation over palladium. Catalysis Science and Technology, 2020, 10, 1858-1874.	4.1	10
386	Catalytic decomposition of NO2 over a copper-decorated metalâ€“organic framework by non-thermal plasma. Cell Reports Physical Science, 2021, 2, 100349.	5.6	10
387	Combined Experimental and Theoretical Study of the Competitive Absorption of CO₂ and NO₂ by a Superbase Ionic Liquid. ACS Sustainable Chemistry and Engineering, 2021, 9, 7578-7586.	6.7	10
388	Near-Ambient Pressure XPS and NEXAFS Study of a Superbasic Ionic Liquid with CO₂. Journal of Physical Chemistry C, 2021, 125, 22778-22785.	3.1	10
389	Hydrogenation/hydrogenolysis of disulfides using sulfided Ni/Mo catalysts. Applied Catalysis A: General, 2008, 340, 162-168.	4.3	9
390	Time of flight mass spectrometry for quantitative data analysis in fast transient studies using a Temporal Analysis of Products (TAP) reactor. Analyst, The, 2011, 136, 155-163.	3.5	9
391	Transient distributions of composition and temperature in a gasâ€“solid packed bed reactor by near-infrared tomography. Chemical Engineering Journal, 2012, 189-190, 383-392.	12.7	9
392	Electrooxidation of methanol in an alkaline fuel cell: determination of the nature of the initial adsorbate. Physical Chemistry Chemical Physics, 2013, 15, 20170.	2.8	9
393	Using temporal analysis of products and flux response technology to determine diffusion coefficients in catalytic monoliths. Chemical Engineering Science, 2013, 87, 224-233.	3.8	9
394	Development of a PtSn bimetallic catalyst for direct fuel cells using bio-butanol fuel. Chemical Communications, 2015, 51, 13412-13415.	4.1	9
395	Physical and Electrochemical Investigations into Blended Electrolytes Containing a Glyme Solvent and Two Bis{(trifluoromethyl)sulfonyl}imide-Based Ionic Liquids. Journal of the Electrochemical Society, 2017, 164, H5124-H5134.	2.9	9
396	HfN Nanoparticles: An Unexplored Catalyst for the Electrocatalytic Oxygen Evolution Reaction. Angewandte Chemie, 2019, 131, 15610-15616.	2.0	9

#	Article	IF	Citations
397	Kinetics of Hydrogenation of Acetic Acid over Supported Platinum Catalyst. Energy & Fuels, 2019, 33, 5551-5560.	5.1	9
398	High-Ionic-Strength Wastewater Treatment via Catalytic Wet Oxidation over a MnCeO_x Catalyst. ACS Catalysis, 2022, 12, 7598-7608.	11.2	9
399	Stabilization of Ti-molecular sieve catalysts used in selective sulfoxidation reactions by ionic liquids. Green Chemistry, 2005, 7, 326.	9.0	8
400	Correction for a possible reversible adsorption over an â€œinertâ€•material. Catalysis Science and Technology, 2011, 1, 760.	4.1	8
401	Thermal conductivity measurement of liquids in a microfluidic device. Microfluidics and Nanofluidics, 2011, 10, 123-132.	2.2	8
402	Cycloalkenyl Halide Substitution Reactions of Enantiopure Arene cisâ€Tetrahydrodiols with Boron, Nitrogen and Phosphorus Nucleophiles. Advanced Synthesis and Catalysis, 2011, 353, 2455-2465.	4.3	8
403	TAP studies on 2% Ag/Î³â€“Al2O3 catalyst for selective reduction of oxygen in a H2-rich ethylene feed. Catalysis Science and Technology, 2012, 2, 2128.	4.1	8
404	Threeâ€“Dimensional Water Vapor Visualization in Porous Packing by Near-Infrared Diffuse Transmittance Tomography. Industrial & Engineering Chemistry Research, 2012, 51, 8875-8882.	3.7	8
405	Arene cisâ€Diol Dehydrogenaseâ€Catalysed Regioâ€•and Stereoselective Oxidation of Areneâ€; Cycloalkaneâ€•and Cycloalkeneâ€cisâ€diols to Yield Catechols and Chiral Îâ€Ketols. Advanced Synthesis and Catalysis, 2015, 357, 1881-1894.	4.3	8
406	An integrated total neutron scattering â€“ NMR approach for the study of heterogeneous catalysis. Chemical Communications, 2018, 54, 10191-10194.	4.1	8
407	Probing the dynamics and structure of confined benzene in MCM-41 based catalysts. Physical Chemistry Chemical Physics, 2020, 22, 11485-11489.	2.8	8
408	Exploring lignin valorisation: the application of photocatalysis for the degradation of the Î²-5 linkage. JPhys Energy, 2021, 3, 035002.	5.3	8
409	Selective Hydrogenation of Stearic Acid Using Mechanochemically Prepared Titania-Supported Pt and Ptâ€“Re Bimetallic Catalysts. ACS Sustainable Chemistry and Engineering, 2022, 10, 6934-6941.	6.7	8
410	Modulating the Selectivity for CO and Butane Oxidation over Heterogeneous Catalysis through Amorphous Catalyst Coatings. Journal of Physical Chemistry C, 2008, 112, 10968-10975.	3.1	7
411	Determination of the Physical Properties of Room Temperature Ionic Liquids Using a Love Wave Device. Analytical Chemistry, 2011, 83, 6717-6721.	6.5	7
412	Synthesis, Properties and Physical Applications of IoNanofluids. , 0, , .		7
413	Origin of double dinitrogen release feature during fast switching between lean and rich cycles for NO storage reduction catalysts. Journal of Catalysis, 2014, 317, 91-98.	6.2	7
414	Determining adsorbate configuration on alumina surfaces with ¹³C nuclear magnetic resonance relaxation time analysis. Physical Chemistry Chemical Physics, 2015, 17, 20830-20839.	2.8	7

#	Article	IF	Citations
415	Determination of toluene hydrogenation kinetics with neutron diffraction. Physical Chemistry Chemical Physics, 2016, 18, 17237-17243.	2.8	7
416	Acylation of sulfonamines using silica grafted 1-butyl-3-(3-triethoxysilylpropyl)-4,5-dihydroimidazolium ionic liquids as catalysts. Catalysis Today, 2008, 131, 98-103.	4.4	6
417	Separate density and viscosity determination of room temperature ionic liquids using dual Quartz Crystal Microbalances. , 2009, , .		6
418	Thermophysical properties of ionic liquids. ACS Symposium Series, 2010, , 43-60.	0.5	6
419	Using a Systematic Approach To Develop a Chemistry Course Introducing Students to Instrumental Analysis. Journal of Chemical Education, 2013, 90, 726-730.	2.3	6
420	Synthesis of Î±,Î²-unsaturated aldehydes and nitriles via cross-metathesis reactions using Grubbsâ€™ catalysts. Applied Catalysis A: General, 2014, 486, 94-104.	4.3	6
421	One-Electron Reduction of 2-Nitrotoluene, Nitrocyclopentane, and 1-Nitrobutane in Room Temperature Ionic Liquids: A Comparative Study of Butlerâ€“Volmer and Symmetric Marcusâ€“Hush Theories Using Microdisk Electrodes. Journal of Physical Chemistry C, 2015, 119, 3634-3647.	3.1	6
422	Catalysis making the world a better place: satellite meeting. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150358.	3.4	6
423	Life cycle thinking case study for catalytic wet air oxidation of lignin in bamboo biomass for vanillin production. Green Chemistry, 2021, 23, 1847-1860.	9.0	6
424	Bulk and Confined Benzene-Cyclohexane Mixtures Studied by an Integrated Total Neutron Scattering and NMR Method. Topics in Catalysis, 2021, 64, 722-734.	2.8	6
425	Highly efficient and selective aqueous phase hydrogenation of aryl ketones, aldehydes, furfural and levulinic acid and its ethyl ester catalyzed by phosphine oxide-decorated polymer immobilized ionic liquid-stabilized ruthenium nanoparticles. Catalysis Science and Technology, 0, , .	4.1	6
426	Reactivity of 1,2-cyclic sulfite xylosides towards nucleophiles. Tetrahedron, 2009, 65, 8858-8862.	1.9	5
427	Selecting Room-Temperature Ionic Liquids to Optimize Voltammetric Responses: The Oxidation of NADH. Journal of the Electrochemical Society, 2010, 157, F49.	2.9	5
428	Expansion of pulse responses from temporal analysis of products (TAP) for more accurate data analysis. Catalysis Science and Technology, 2014, 4, 3665-3671.	4.1	5
429	Impact of SCILL catalysts for the Sâ€“S coupling of thiols to disulfides. Faraday Discussions, 2018, 206, 535-547.	3.2	5
430	Elucidating the role of H2O in promoting the formation of methacrylic acid during the oxidation of methacrolein over heteropolyacid compounds. Faraday Discussions, 2021, 229, 443-457.	3.2	5
431	Investigations into the synthesis of a nucleotide dimer via mechanochemical phosphoramidite chemistry. Royal Society Open Science, 2021, 8, 201703.	2.4	5
432	Comparison between the thermal and plasma (NTP) assisted palladium catalyzed oxidation of CH4 using AC or nanopulse power supply. Catalysis Today, 2022, 384-386, 177-186.	4.4	5

#	Article	IF	Citations
433	The effect of co-precipitation on cadmium(ii) adsorption on hydrous aluminium(iii) hydroxide in the presence of a range of chelates. Physical Chemistry Chemical Physics, 2002, 4, 3828-3834.	2.8	4
434	High-surface thermally stable mesoporous gallium phosphates constituted by nanoparticles as primary building blocks. Journal of Catalysis, 2011, 278, 111-122.	6.2	4
435	Reversible Reaction of CO₂ with Superbasic Ionic Liquid [P₆₆₆₁₄][benzim] Studied with in Situ Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 7134-7141.	3.1	4
436	A Simple and Ligandâ€Free Synthesis of Light and Durable Metalâ€TiO₂ Polymer Films with Enhanced Photocatalytic Properties. Advanced Materials Interfaces, 2021, 8, .	3.7	4
437	A more direct way to make catalysts: one-pot ligand-assisted aerobic stripping and electrodeposition of copper on graphite. Green Chemistry, 2012, 14, 1643.	9.0	3
438	Controlling chlorination versus cyclosulfonation of cis-diols using ionic liquid solvents. New Journal of Chemistry, 2012, 36, 2316.	2.8	3
439	Re-dispersion of gold supported on a â€˜mixedâ€™ oxide support. Journal of Lithic Studies, 2015, 1, 120-124.	0.5	3
440	Preliminary Investigation on the Electrochemical Activity of Butanol Isomers as Potential Fuel for Direct Alcohol Fuel Cell. ECS Transactions, 2015, 69, 809-816.	0.5	3
441	Probing the Role of a Nonâ€Thermal Plasma (NTP) in the Hybrid NTP Catalytic Oxidation of Methane. Angewandte Chemie, 2017, 129, 9479-9483.	2.0	3
442	Confinement Effects on the Benzene Orientational Structure. Angewandte Chemie, 2018, 130, 4655-4660.	2.0	3
443	Contrasting the EXAFS obtained under air and H₂ environments to reveal details of the surface structure of Ptâ€“Sn nanoparticles. Physical Chemistry Chemical Physics, 2021, 23, 11738-11745.	2.8	3
444	Applications of Mechanochemistry for the Synthesis of DNA on Ionic Liquid Supports. Chemistry Methods, 2021, 1, 382-388.	3.8	3
445	Liquid and Solid-State Structures of 1,3-Dimethylimidazolium Salts. ACS Symposium Series, 2003, , 151-161.	0.5	2
446	Electrochemical Determination of Manganese Solubility in Mercury via Amalgamation and Stripping in the Room Temperature Ionic Liquid nâ€Hexyltriethylammonium Bis(trifluoromethanesulfonyl)imide, [N_{6,2,2,2}][NTf₂]. Electroanalysis, 2008, 20, 2603-2607.	2.9	2
447	Prediction of Gas Solubility using COSMOthermX. ACS Symposium Series, 2010, , 359-383.	0.5	2
448	Electrochemistry of Hg(II) Salts in Room-Temperature Ionic Liquids. Journal of Physical Chemistry B, 2011, 115, 2574-2581.	2.6	2
449	Controlling the Sulfur Poisoning of Ag/Al2O3 Catalysts for the Hydrocarbon SCR Reaction by Using a Regenerable SOx Trap. Topics in Catalysis, 2013, 56, 243-248.	2.8	2
450	In-Situ Monitoring of Solid Oxide Electrolysis Cells. ECS Transactions, 2013, 58, 207-216.	0.5	2

#	Article	IF	Citations
451	Solubility study of tobramycin in room temperature ionic liquids: an experimental and computational based study. RSC Advances, 2016, 6, 107214-107218.	3.6	2
452	Performance of Ionic Liquid-Water Mixtures in an Acetone Cooling Application. Sustainability, 2021, 13, 2949.	3.2	2
453	Combined Superbase Ionic Liquid Approach to Separate CO₂ from Flue Gas. ACS Sustainable Chemistry and Engineering, 2022, 10, 9453-9459.	6.7	2
454	Short-Chain Alkane Activation. ACS Symposium Series, 1996, , 394-408.	0.5	1
455	(Invited) Controlled Chemistry of Moisture Sensitive Reagents in Ionic Liquids. ECS Transactions, 2010, 33, 63-72.	0.5	1
456	Effect of hydrophobic nanopatches within an ionic surface on the structure of liquids. Physical Chemistry Chemical Physics, 2011, 13, 582-585.	2.8	1
457	Preface to Special Issue on 5th UK Catalysis Conference (UKCC 2019). Topics in Catalysis, 2020, 63, 255-255.	2.8	1
458	Synchrotron Radiation and Catalytic Science. Synchrotron Radiation News, 2020, 33, 10-14.	0.8	1
459	CHAPTER 5. Heterogeneous Catalysis in Ionic Liquids. RSC Catalysis Series, 0, , 345-390.	0.1	1
460	Optimization of Non-thermal Plasma-Assisted Catalytic Oxidation for Methane Emissions Abatement as an Exhaust Aftertreatment Technology. Plasma Chemistry and Plasma Processing, 2022, 42, 709-730.	2.4	1
461	Polymer-Supported Phosphoramidites: Highly Efficient and Recyclable Catalysts for Asymmetric Hydrogenation of Dimethylitaconate and Dehydroamino Acids and Esters.. ChemInform, 2003, 34, no.	0.0	0
462	Chloroindate(III) Ionic Liquids: Recyclable Media for Friedelâ€"Crafts Acylation Reactions.. ChemInform, 2005, 36, no.	0.0	0
463	Application of EXAFS to Molten Salts and Ionic Liquid Technology. ChemInform, 2006, 37, no.	0.0	0
464	Controlled Chemistry of Moisture Sensitive Reagents in Ionic Liquids. ECS Meeting Abstracts, 2010, , .	0.0	0
465	A Neutron Diffraction and Molecular Dynamics Investigation of Acetate-Based Ionic Liquids as Solvents for Glucose. ECS Transactions, 2010, 33, 611-620.	0.5	0
466	Preface for Special Issue in Celebration of the 3rd UK Catalysis Conference (UKCC). Topics in Catalysis, 2018, 61, 143-143.	2.8	0