Xingbang Hu

List of Publications by Year
in descending order

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114 papers	4,205 citations	81900 39 h-index	128289 60 g-index
116 all docs	116 docs citations	116 times ranked	3246 citing authors

#	Article	IF	Citations
1	Adsorption and Activation of O₂ on Nitrogen-Doped Carbon Nanotubes. Journal of Physical Chemistry C, 2010, 114, 9603-9607.	3.1	164
2	Gold-Catalyzed Hydroarylation of Alkenes with Dialkylanilines. Journal of the American Chemical Society, 2014, 136, 13594-13597.	13.7	139
3	Thermodynamic validation of 1â€alkylâ€3â€methylimidazolium carboxylates as taskâ€specific ionic liquids for H₂S absorption. AICHE Journal, 2013, 59, 2227-2235.	3.6	135
4	Protic ionic liquids for the selective absorption of H₂S from CO₂: Thermodynamic analysis. AICHE Journal, 2014, 60, 4232-4240.	3.6	123
5	SO2 absorption in acid salt ionic liquids/sulfolane binary mixtures: Experimental study and thermodynamic analysis. Chemical Engineering Journal, 2014, 237, 478-486.	12.7	121
6	Highly selective absorption separation of H₂S and CO₂ from CH₄ by novel azoleâ€based protic ionic liquids. AICHE Journal, 2020, 66, e16936.	3.6	105
7	Hydrophobic protic ionic liquids tethered with tertiary amine group for highly efficient and selective absorption of H₂S from CO₂. AICHE Journal, 2016, 62, 4480-4490.	3.6	102
8	Airâ€stable (CAAC)CuCl and (CAAC)CuBH₄ Complexes as Catalysts for the Hydrolytic Dehydrogenation of BH₃NH₃. Angewandte Chemie - International Edition, 2015, 54, 6008-6011.	13.8	95
9	Absorption of SO2 in aqueous solutions of mixed hydroxylammonium dicarboxylate ionic liquids. Chemical Engineering Journal, 2013, 215-216, 36-44.	12.7	92
10	Facilitated separation of CO2 and SO2 through supported liquid membranes using carboxylate-based ionic liquids. Journal of Membrane Science, 2014, 471, 227-236.	8.2	91
11	Tandem copper hydrideâ€“Lewis pair catalysed reduction of carbon dioxide into formate with dihydrogen. Nature Catalysis, 2018, 1, 743-747.	34.4	88
12	Direct Synthesis of Dimethyl Carbonate from Carbon Dioxide and Methanol at Room Temperature Using Imidazolium Hydrogen Carbonate Ionic Liquid as a Recyclable Catalyst and Dehydrant. ChemSusChem, 2017, 10, 2046-2052.	6.8	83
13	Hydration of alkynes at room temperature catalyzed by gold(<scp>i</scp>) isocyanide compounds. Green Chemistry, 2015, 17, 532-537.	9.0	79
14	Unexpectedly efficient SO₂ capture and conversion to sulfur in novel imidazole-based deep eutectic solvents. Chemical Communications, 2018, 54, 8964-8967.	4.1	77
15	Kinetics for the Esterification Reaction of n-Butanol with Acetic Acid Catalyzed by Noncorrosive BrÃ¸nsted Acidic Ionic Liquids. Industrial & Engineering Chemistry Research, 2011, 50, 1989-1996.	3.7	73
16	Low-viscous fluorine-substituted phenolic ionic liquids with high performance for capture of CO2. Chemical Engineering Journal, 2015, 274, 30-38.	12.7	73
17	Theoretical Study of the Proton Transfer of Uracil and (Water)n(n= 0â˜’4):Â Water Stabilization and Mutagenicity for Uracil. Journal of Physical Chemistry B, 2004, 108, 12999-13007.	2.6	72
18	Task-specific ionic liquids as absorbents and catalysts for efficient capture and conversion of H2S into value-added mercaptan acids. Chemical Engineering Journal, 2021, 408, 127866.	12.7	72

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19	Selective separation of H2S and CO2 from CH4 by supported ionic liquid membranes. Journal of Membrane Science, 2017, 543, 282-287.	8.2	71
20	Comparative Study of the Solubilities of SO₂ in Five Low Volatile Organic Solvents (Sulfolane, Ethylene Glycol, Propylene Carbonate, N-Methylimidazole, and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 697 Td (N	7.9	67
21	Metal-free imidazolium hydrogen carbonate ionic liquids as bifunctional catalysts for the one-pot synthesis of cyclic carbonates from olefins and CO₂. Green Chemistry, 2019, 21, 3834-3838.	9.0	67
22	Efficient conversion of CO₂ into cyclic carbonates at room temperature catalyzed by Al-salen and imidazolium hydrogen carbonate ionic liquids. Green Chemistry, 2020, 22, 4509-4515.	9.0	67
23	Catalyst-free N-formylation of amines using BH₃NH₃ and CO₂ under mild conditions. Chemical Communications, 2017, 53, 8046-8049.	4.1	66
24	Hydrogenation of CO₂ to Formate with H₂: Transition Metal Free Catalyst Based on a Lewis Pair. Angewandte Chemie - International Edition, 2019, 58, 722-726.	13.8	66
25	Dicarboxylic acid salts as task-specific ionic liquids for reversible absorption of SO2 with a low enthalpy change. RSC Advances, 2013, 3, 16264.	3.6	64
26	Systematic Study of the Tautomerism of Uracil Induced by Proton Transfer. Exploration of Water Stabilization and Mutagenicity. Journal of Physical Chemistry B, 2005, 109, 5935-5944.	2.6	63
27	Dual Lewis Base Functionalization of Ionic Liquids for Highly Efficient and Selective Capture of H₂S. ChemPlusChem, 2014, 79, 241-249.	2.8	62
28	Efficient SO₂ Capture and Fixation to Cyclic Sulfites by Dual Ether-Functionalized Protic Ionic Liquids without Any Additives. ACS Sustainable Chemistry and Engineering, 2018, 6, 10886-10895.	6.7	60
29	Supported protic-ionic-liquid membranes with facilitated transport mechanism for the selective separation of CO2. Journal of Membrane Science, 2017, 527, 60-67.	8.2	59
30	The ionic liquid-mediated Claus reaction: a highly efficient capture and conversion of hydrogen sulfide. Green Chemistry, 2016, 18, 1859-1863.	9.0	58
31	Low viscosity superbase protic ionic liquids for the highly efficient simultaneous removal of H2S and CO2 from CH4. Separation and Purification Technology, 2021, 263, 118417.	7.9	57
32	Supported Ionic Liquid Membranes with Dual-Site Interaction Mechanism for Efficient Separation of CO₂. ACS Sustainable Chemistry and Engineering, 2019, 7, 10792-10799.	6.7	54
33	Catalyst-free selective N-formylation and N-methylation of amines using CO₂ as a sustainable C1 source. Green Chemistry, 2020, 22, 1134-1138.	9.0	51
34	Task-specific deep eutectic solvents for the highly efficient and selective separation of H2S. Separation and Purification Technology, 2021, 276, 119357.	7.9	48
35	CO oxidation on metal-free nitrogen-doped carbon nanotubes and the related structureâ€“reactivity relationships. Journal of Materials Chemistry, 2012, 22, 15198.	6.7	47
36	Mutagenic Mechanism of the A-T to G-C Transition Induced by 5-Bromouracil:Â An ab Initio Studyâ€. Biochemistry, 2004, 43, 6361-6369.	2.5	46

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37	Cyano-Containing Protic Ionic Liquids for Highly Selective Absorption of SO₂ from CO₂: Experimental Study and Theoretical Analysis. Industrial & Engineering Chemistry Research, 2016, 55, 11012-11021.	3.7	45
38	The efficient conversion of H₂S into mercaptan alcohols mediated in protic ionic liquids under mild conditions. Green Chemistry, 2021, 23, 7969-7975.	9.0	43
39	Iron chloride supported on pyridine-modified mesoporous silica: an efficient and reusable catalyst for the allylic oxidation of olefins with molecular oxygen. Green Chemistry, 2008, 10, 827.	9.0	41
40	Correlation Analysis of the Substituent Electronic Effects on the Allylic H-Abstraction in Cyclohexene by Phthalimide-N-oxyl Radicals: a DFT Study. Journal of Physical Chemistry B, 2010, 114, 4862-4869.	2.6	40
41	Natural deep eutectic solvent-based gels with multi-site interaction mechanism for selective membrane separation of SO2 from N2 and CO2. Chemical Engineering Journal, 2022, 438, 135626.	12.7	38
42	Highly-selective separation of CO2 from N2 or CH4 in task-specific ionic liquid membranes: Facilitated transport and salting-out effect. Separation and Purification Technology, 2021, 254, 117621.	7.9	36
43	Highly efficient and selective H2S capture by task-specific deep eutectic solvents through chemical dual-site absorption. Separation and Purification Technology, 2022, 283, 120167.	7.9	35
44	Acetylacetoneâ€“Fe catalyst modified by imidazole ionic compound and its application in aerobic oxidation of Î²-isophorone. Catalysis Communications, 2009, 10, 1908-1912.	3.3	34
45	Theoretical study on the structureâ€“reactivity relationships of acetylacetoneâ€“Fe catalyst modified by ionic compound in Câ€“H activation reaction. Journal of Catalysis, 2010, 272, 320-332.	6.2	33
46	Proton Transfer of Formamide +nH2O (n= 0â˜3):Â Protective and Assistant Effect of the Water Molecule. Journal of Physical Chemistry A, 2004, 108, 10219-10224.	2.5	30
47	Copper-salen catalysts modified by ionic compounds for the oxidation of cyclohexene by oxygen. Journal of Molecular Catalysis A, 2010, 327, 25-31.	4.8	30
48	An environmentally benign catalytic oxidation of cholesteryl acetate with molecular oxygen by using N-hydroxyphthalimide. Green Chemistry, 2009, 11, 2013.	9.0	29
49	Low-viscous diamino protic ionic liquids with fluorine-substituted phenolic anions for improving CO2 reversible capture. Journal of Molecular Liquids, 2018, 268, 617-624.	4.9	29
50	Self-enhancement of CO reversible absorption accompanied by phase transition in protic chlorocuprate ionic liquids for effective CO separation from N₂. Chemical Communications, 2019, 55, 3390-3393.	4.1	29
51	Impact of Îł-d-glucose pentaacetate on the selective separation of CO2 and SO2 in supported ionic liquid membranes. Green Chemistry, 2012, 14, 1440.	9.0	27
52	Absorption of H₂S and CO₂ in Aqueous Solutions of Tertiary-Amine Functionalized Protic Ionic Liquids. Energy & Fuels, 2017, 31, 14060-14069.	5.1	27
53	Facilitated transport separation of CO2 and H2S by supported liquid membrane based on task-specific protic ionic liquids. Green Chemical Engineering, 2022, 3, 259-266.	6.3	27
54	Protic ionic liquid as excellent shuttle of MDEA for fast capture of CO₂. AICHE Journal, 2018, 64, 209-219.	3.6	26

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55	Imidazolium hydrogen carbonate ionic liquids: Versatile organocatalysts for chemical conversion of CO2 into valuable chemicals. Journal of CO2 Utilization, 2020, 39, 101155.	6.8	26
56	A mild and efficient oxidation of 2,3,6-trimethylphenol to trimethyl-1,4-benzoquinone in ionic liquids. Catalysis Communications, 2008, 9, 1979-1981.	3.3	23
57	Multisite activation of epoxides by recyclable CaI 2 / N -methyldiethanolamine catalyst for CO 2 fixation: A facile access to cyclic carbonates under mild conditions. Molecular Catalysis, 2018, 450, 87-94.	2.0	23
58	Unexpectedly efficient absorption of low-concentration SO2 with phase-transition mechanism using deep eutectic solvent consisting of tetraethylammonium chloride and imidazole. Separation and Purification Technology, 2022, 286, 120489.	7.9	23
59	Tautomerism of Uracil and 5-Bromouracil in a Microcosmic Environment with Water and Metal Ions. What Roles Do Metal Ions Play?. Journal of Physical Chemistry B, 2007, 111, 9347-9354.	2.6	22
60	Experimental study and thermodynamical modelling of the solubilities of SO 2 , H 2 S and CO 2 in N-dodecylimidazole and 1,1â€²-[oxybis(2,1-ethanediyloxy-2,1-ethanediyl)]bis(imidazole): An evaluation of their potential application in the separation of acidic gases. Fluid Phase Equilibria, 2014, 378, 21-33.	2.5	22
61	Density functional theory study on nitrogen-doped carbon nanotubes with and without oxygen adsorption: the influence of length and diameter. New Journal of Chemistry, 2011, 35, 2601.	2.8	21
62	Structureâ€“Reactivity Relationships of Metalloporphyrin Modified by Ionic Liquid and Its Analogue. Journal of Physical Chemistry C, 2011, 115, 23913-23921.	3.1	21
63	Roomâ€Temperature Hydration of Alkynes Catalyzed by Different Carbene Gold Complexes and their Precursors. ChemCatChem, 2016, 8, 262-267.	3.7	21
64	Oxidation of olefins using molecular oxygen catalyzed by a part per million level of recyclable copper catalyst under mild conditions. Green Chemistry, 2017, 19, 675-681.	9.0	21
65	Concentrated aqueous solutions of protic ionic liquids as effective CO2 absorbents with high absorption capacities. Journal of Molecular Liquids, 2017, 243, 169-177.	4.9	18
66	Selective membrane separation of CO2 using novel epichlorohydrin-amine-based crosslinked protic ionic liquids: Crosslinking mechanism and enhanced salting-out effect. Journal of CO2 Utilization, 2021, 46, 101473.	6.8	18
67	Highly efficient absorption of HCl in deep eutectic solvents and their corresponding ethylene glycol blends. Chemical Engineering Journal, 2022, 434, 134707.	12.7	18
68	Room temperature hydroamination of alkynes with anilines catalyzed by anti-Bredt di(amino)carbene gold(i) complexes. New Journal of Chemistry, 2016, 40, 5993-5996.	2.8	17
69	Straightforward construction of amino-functionalized ILs@SBA-15 catalysts via mechanochemical grafting for one-pot synthesis of cyclic carbonates from aromatic olefins and CO2. Journal of CO2 Utilization, 2022, 59, 101962.	6.8	17
70	Reversible absorption of NF3 with high solubility in Lewis acidic ionic liquids. Chemical Engineering Journal, 2022, 440, 135902.	12.7	17
71	A water-soluble palladium-salen catalyst modified by pyridinium salt showing higher reactivity and recoverability for Heck coupling reaction. Journal of Molecular Catalysis A, 2015, 396, 55-60.	4.8	16
72	Metal-free catalysis for the one-pot synthesis of organic carbamates from amines, CO2, and alcohol at mild conditions. Chemical Engineering Journal, 2021, 425, 131452.	12.7	16

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73	Hydrogenation of CO₂ to Formate with H₂: Transition Metal Free Catalyst Based on a Lewis Pair. Angewandte Chemie, 2019, 131, 732-736.	2.0	15
74	The efficient catalytic microsystem with halogen-free catalyst for the intensification on CO2 cycloaddition. Applied Catalysis B: Environmental, 2021, 283, 119629.	20.2	15
75	Approaching and Bond Breaking Energies in the Câ^'H Activation and Their Application in Catalyst Design. Journal of Physical Chemistry A, 2011, 115, 904-910.	2.5	14
76	Effective hydrogenation of CO₂ to formate catalyzed by ionic liquid modified acetate-Cu. Green Chemistry, 2021, 23, 951-956.	9.0	14
77	Fast and Efficient CO₂ Absorption in Non-aqueous Tertiary Amines Promoted by Ethylene Glycol. Energy & Fuels, 2022, 36, 4830-4836.	5.1	14
78	Two Unexpected Roles of Water: Assisting and Preventing Functions in the Oxidation of Methane and Methanol Catalyzed by Porphyrinâ^'Fe and Porphyrinâ^'SHâ^'Fe. Journal of Physical Chemistry B, 2008, 112, 10684-10688.	2.6	13
79	The Effect of Nano Confinement on the Câ€"H Activation and its Corresponding Structure-Activity Relationship. Scientific Reports, 2014, 4, 7225.	3.3	13
80	Aerobic oxidation of aldehydes to acids in water with cyclic (alkyl)(amino)carbene copper under mild conditions. Chemical Communications, 2022, 58, 2132-2135.	4.1	13
81	The Reactivity of All-Metal Aromatic Complexes:Â A Theoretical Investigation on the Methane Activation Reaction. Journal of Physical Chemistry B, 2006, 110, 14046-14049.	2.6	12
82	Selective Oxidation of Cyclohexene with H2O2 Catalyzed by Resin Supported Peroxo Phosphotungstic Acid Under Mild Conditions. Catalysis Letters, 2021, 151, 147-152.	2.6	12
83	Controlling the Lewis Acidity and Polymerizing Effectively Prevent Frustrated Lewis Pairs from Deactivation in the Hydrogenation of Terminal Alkynes. Organic Letters, 2021, 23, 3685-3690.	4.6	12
84	CO2 hydrogenation to formate catalyzed by highly stable and recyclable carbene-iridium under mild condition. Journal of CO2 Utilization, 2021, 54, 101769.	6.8	12
85	Base-assisted transfer hydrogenation of CO2 to formate with ammonia borane in water under mild conditions. International Journal of Hydrogen Energy, 2021, 46, 15716-15723.	7.1	11
86	Tuning the composition of deep eutectic solvents consisting of tetrabutylammonium chloride and n-decanoic acid for adjustable separation of ethylene and ethane. Separation and Purification Technology, 2022, 298, 121680.	7.9	11
87	Reductive amination of ketones/aldehydes with amines using BH3N(C2H5)3 as a reductant. Chemical Communications, 2021, 57, 8588-8591.	4.1	10
88	Catalyst-free hierarchical reduction of CO2 with BH3N(C2H5)3 for selective N-methylation and N-formylation of amines. Journal of CO2 Utilization, 2021, 50, 101590.	6.8	10
89	Friedel-Crafts Reaction of N,N-Dimethylaniline with Alkenes Catalyzed by Cyclic Diaminocarbene-Gold(I) Complex. Scientific Reports, 2018, 8, 11449.	3.3	9
90	Supported Ionic Liquid Gel Membranes Enhanced by Ionization Modification for Sodium Metal Batteries. ACS Sustainable Chemistry and Engineering, 2021, 9, 12100-12108.	6.7	9

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91	CO2 capturing and in situ conversion at mild condition: Efficient synthesis of methyl phenyl carbonate. Journal of Environmental Chemical Engineering, 2021, 9, 105862.	6.7	9
92	Experimental and theoretical study on the cyclic(alkyl)(amino)carbene-copper catalyzed Friedelâ€“Crafts reaction of N,N-dialkylanilines with styrenes. Organic and Biomolecular Chemistry, 2020, 18, 4272-4275.	2.8	9
93	Exploring a new kind of aromatic hydrogen bond: hydrogen bonding to all-metal aromatic species. New Journal of Chemistry, 2005, 29, 1295.	2.8	8
94	All-Metal Aromatic Complexes Show High Reactivity in the Oxidation Reaction of Methane and Some Hydrocarbons. Journal of Physical Chemistry A, 2007, 111, 8352-8356.	2.5	8
95	Thermal Dehydrogenation and Hydrolysis of BH₃NH₃ Catalyzed by Cyclic (Alkyl)(amino)carbene Iridium Complexes under Mild Conditions. Organometallics, 2021, 40, 2643-2650.	2.3	8
96	Cyclic (alkyl)(amino)carbene-copper supported on SBA-15 as an efficient and recyclable catalyst for CO2 hydrogenation to formate. Journal of CO2 Utilization, 2022, 58, 101910.	6.8	8
97	Efficient conversion of H2S into mercaptan alcohol by tertiary-amine functionalized ionic liquids. Chinese Journal of Chemical Engineering, 2022, 50, 197-204.	3.5	7
98	B(C₆F₅)₃â€Catalyzed Tandem Friedelâ€Crafts and Câˆ’H/Câˆ’O Coupling Reactions of Dialkylanilines. Chemistry - an Asian Journal, 2020, 15, 3082-3086.	3.3	6
99	Efficient methanol carbonylation to methyl acetate catalyzed by a cyclic(alkyl)(amino)carbene iridium complex. Catalysis Science and Technology, 2020, 10, 6045-6049.	4.1	6
100	Covalent organic frameworks anchored with frustrated Lewis pairs for hydrogenation of alkynes with H₂. Journal of Materials Chemistry A, 2022, 10, 7333-7340.	10.3	6
101	Recyclable polymerized Lewis acid poly-BPh(C6F5)2 catalyzed selective N-formylation and N-methylation of amines with carbon dioxide andÂphenylsilanes. Journal of CO2 Utilization, 2022, 61, 102052.	6.8	6
102	Reaction Mechanism of Uracil Bromination by HBrO:Â A New Way To Generate the Enolâˆ’Keto Form of 5-Bromouracil. Journal of Physical Chemistry A, 2006, 110, 11188-11193.	2.5	5
103	Structure and asymmetric epoxidation reactivity of chiral Mn(<scp>iii</scp>) salen catalysts modified by different axial anions. RSC Advances, 2015, 5, 80772-80778.	3.6	5
104	The influence of axial ligands on the catalytic activity and enantioselectivity of salenâ€Mn complexes in the asymmetric epoxidation. Journal of Physical Organic Chemistry, 2019, 32, e3972.	1.9	5
105	Amino Acid Modified Macroreticular Anion Exchange Resins for CO₂ Adsorption. Journal of Chemical Engineering of Japan, 2015, 48, 268-275.	0.6	5
106	Efficient chemical fixation of CO2 to form switchable ionic liquid to synthesize benzimidazolones under mild conditions. Chemical Engineering Journal, 2022, 442, 135122.	12.7	5
107	Selective and simultaneous membrane separation of CO and H2 from N2 by protic chlorocuprate ionic liquids. Renewable Energy, 2022, , .	8.9	5
108	Improvement the Activity and Selectivity of Fenton System in the Oxidation of Alcohols. Journal of Catalysts, 2014, 2014, 1-6.	0.5	4

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109	Utilization of a Methoxy Group in Lignin to Prepare Amides by the Carbonylation of Amines. ACS Sustainable Chemistry and Engineering, 2021, 9, 11667-11673.	6.7	4
110	Ionic Liquids Endowed with Novel Hybrid Anions for Supercapacitors. ACS Omega, 2022, 7, 26368-26374.	3.5	4
111	An efficient method to prepare aryl acetates by the carbonylation of aryl methyl ethers or phenols. New Journal of Chemistry, 2021, 45, 2683-2687.	2.8	3
112	Binary BrÃ¸nsted Acidic Ionic Liquids (BBAILs) as the Reactive Extraction Intensified Catalysts for the Esterification of Acetic Acid and <i>n</i>-Butanol. Journal of Chemical Engineering of Japan, 2017, 50, 632-640.	0.6	2
113	The effect of inorganic salt on multiphase flow characteristics in a microbubble column: A focus on the ionic strength. Asia-Pacific Journal of Chemical Engineering, 2022, 17, e2720.	1.5	2
114	Hydrogenation of CO 2 to Formate with H 2 : Transition Metal Free Catalyst Based on a Lewis Pair. Angewandte Chemie, 2018, 131, 649.	2.0	0