

Hua Zhao

List of Publications by Year in descending order

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83
papers

8,091
citations

94433

37
h-index

56724

83
g-index

91
all docs

91
docs citations

91
times ranked

7887
citing authors

#	ARTICLE	IF	CITATIONS
1	Use of ionic liquids as "green" solvents for extractions. <i>Journal of Chemical Technology and Biotechnology</i> , 2005, 80, 1089-1096.	3.2	780
2	Deep Eutectic Solvents: Sustainable Media for Nanoscale and Functional Materials. <i>Accounts of Chemical Research</i> , 2014, 47, 2299-2308.	15.6	708
3	Ether- and alcohol-functionalized task-specific ionic liquids: attractive properties and applications. <i>Chemical Society Reviews</i> , 2012, 41, 4030.	38.1	512
4	Designing enzyme-compatible ionic liquids that can dissolve carbohydrates. <i>Green Chemistry</i> , 2008, 10, 696.	9.0	431
5	Regenerating cellulose from ionic liquids for an accelerated enzymatic hydrolysis. <i>Journal of Biotechnology</i> , 2009, 139, 47-54.	3.8	423
6	Effect of ions and other compatible solutes on enzyme activity, and its implication for biocatalysis using ionic liquids. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2005, 37, 16-25.	1.8	337
7	Methods for stabilizing and activating enzymes in ionic liquids—a review. <i>Journal of Chemical Technology and Biotechnology</i> , 2010, 85, 891-907.	3.2	327
8	INNOVATIVE APPLICATIONS OF IONIC LIQUIDS AS "GREEN" ENGINEERING LIQUIDS. <i>Chemical Engineering Communications</i> , 2006, 193, 1660-1677.	2.6	318
9	Viscosity B-coefficients and standard partial molar volumes of amino acids, and their roles in interpreting the protein (enzyme) stabilization. <i>Biophysical Chemistry</i> , 2006, 122, 157-183.	2.8	243
10	Ionic liquids and deep eutectic solvents for biodiesel synthesis: a review. <i>Journal of Chemical Technology and Biotechnology</i> , 2013, 88, 3-12.	3.2	242
11	Protein stabilization and enzyme activation in ionic liquids: specific ion effects. <i>Journal of Chemical Technology and Biotechnology</i> , 2016, 91, 25-50.	3.2	236
12	New eutectic ionic liquids for lipase activation and enzymatic preparation of biodiesel. <i>Organic and Biomolecular Chemistry</i> , 2011, 9, 1908.	2.8	231
13	Ternary Deep Eutectic Solvents Tasked for Carbon Dioxide Capture. <i>ACS Sustainable Chemistry and Engineering</i> , 2014, 2, 2117-2123.	6.7	196
14	Protease activation in glycerol-based deep eutectic solvents. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2011, 72, 163-167.	1.8	181
15	Effect of kosmotropicity of ionic liquids on the enzyme stability in aqueous solutions. <i>Bioorganic Chemistry</i> , 2006, 34, 15-25.	4.1	172
16	Choline-based deep eutectic solvents for enzymatic preparation of biodiesel from soybean oil. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2013, 85-86, 243-247.	1.8	172
17	Are ionic liquids kosmotropic or chaotropic? An evaluation of available thermodynamic parameters for quantifying the ion kosmotropicity of ionic liquids. <i>Journal of Chemical Technology and Biotechnology</i> , 2006, 81, 877-891.	3.2	165
18	Aqueous ionic liquids and deep eutectic solvents for cellulosic biomass pretreatment and saccharification. <i>RSC Advances</i> , 2014, 4, 10586.	3.6	151

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19	Hofmeister series of ionic liquids: kosmotropic effect of ionic liquids on the enzymatic hydrolysis of enantiomeric phenylalanine methyl ester. <i>Tetrahedron: Asymmetry</i> , 2006, 17, 377-383.	1.8	116
20	PEG-functionalized ionic liquids for cellulose dissolution and saccharification. <i>Green Chemistry</i> , 2012, 14, 2922.	9.0	116
21	DNA stability in ionic liquids and deep eutectic solvents. <i>Journal of Chemical Technology and Biotechnology</i> , 2015, 90, 19-25.	3.2	109
22	Glymes as versatile solvents for chemical reactions and processes: from the laboratory to industry. <i>RSC Advances</i> , 2014, 4, 11251.	3.6	105
23	Lipase dissolution and stabilization in ether-functionalized ionic liquids. <i>Green Chemistry</i> , 2009, 11, 1128.	9.0	103
24	Enzymatic resolution of amino acid esters using ionic liquid N-ethyl pyridinium trifluoroacetate. <i>Biotechnology Letters</i> , 2002, 24, 1257-1259.	2.2	101
25	Effect of ionic liquid properties on lipase stabilization under microwave irradiation. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2009, 57, 149-157.	1.8	101
26	Oxidative desulfurization of fuels using ionic liquids: A review. <i>Frontiers of Chemical Science and Engineering</i> , 2015, 9, 262-279.	4.4	92
27	Tuning Task-Specific Ionic Liquids for the Extractive Desulfurization of Liquid Fuel. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 4771-4780.	6.7	88
28	Using ionic liquid [EMIM][CH ₃ COO] as an enzyme-friendly™ co-solvent for resolution of amino acids. <i>Tetrahedron: Asymmetry</i> , 2006, 17, 2491-2498.	1.8	82
29	Review: Current studies on some physical properties of ionic liquids. <i>Physics and Chemistry of Liquids</i> , 2003, 41, 545-557.	1.2	75
30	Fast enzymatic saccharification of switchgrass after pretreatment with ionic liquids. <i>Biotechnology Progress</i> , 2010, 26, 127-133.	2.6	73
31	Quantum Chemical Evaluation of Deep Eutectic Solvents for the Extractive Desulfurization of Fuel. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 7525-7531.	6.7	69
32	New ionic derivatives of betulinic acid as highly potent anti-cancer agents. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2012, 22, 1734-1738.	2.2	64
33	New Ether-Functionalized Ionic Liquids for Lipase-Catalyzed Synthesis of Biodiesel. <i>Applied Biochemistry and Biotechnology</i> , 2010, 162, 13-23.	2.9	54
34	Enhancing protease enantioselectivity by ionic liquids based on chiral- or D-amino acids. <i>Tetrahedron: Asymmetry</i> , 2006, 17, 1549-1553.	1.8	50
35	Activation of Commercial CaO for Biodiesel Production from Rapeseed Oil Using a Novel Deep Eutectic Solvent. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 11943-11947.	3.7	48
36	Kinetic Study on the Enzymatic Resolution of Homophenylalanine Ester Using Ionic Liquids. <i>Biotechnology Progress</i> , 2003, 19, 1016-1018.	2.6	46

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37	The study and application of biomolecules in deep eutectic solvents. <i>Journal of Materials Chemistry B</i> , 2021, 9, 536-566.	5.8	46
38	What do we learn from enzyme behaviors in organic solvents? “ Structural functionalization of ionic liquids for enzyme activation and stabilization. <i>Biotechnology Advances</i> , 2020, 45, 107638.	11.7	40
39	PREPARATION AND CHARACTERIZATION OF THREE ROOM-TEMPERATURE IONIC LIQUIDS. <i>Physics and Chemistry of Liquids</i> , 2003, 41, 487-492.	1.2	38
40	Enzymatic ring-opening polymerization (ROP) of lactides and lactone in ionic liquids and organic solvents: digging the controlling factors. <i>RSC Advances</i> , 2017, 7, 48639-48648.	3.6	37
41	Design rules of ionic liquids tasked for highly efficient fuel desulfurization by mild oxidative extraction. <i>Fuel</i> , 2017, 189, 334-339.	6.4	35
42	Fluorescence energy transfer efficiency in labeled yeast cytochrome c: a rapid screen for ion biocompatibility in aqueous ionic liquids. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 3642.	2.8	34
43	Improving the Enzyme Catalytic Efficiency Using Ionic Liquids with Kosmotropic Anions. <i>Chinese Journal of Chemistry</i> , 2006, 24, 580-584.	4.9	33
44	Ionic derivatives of betulinic acid as novel HIV-1 protease inhibitors. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2012, 27, 715-721.	5.2	32
45	Migration of reactive trace compounds from Novozym® 435 into organic solvents and ionic liquids. <i>Biochemical Engineering Journal</i> , 2010, 49, 113-118.	3.6	31
46	High transesterification activities of immobilized proteases in new ether-functionalized ionic liquids. <i>Biotechnology Letters</i> , 2010, 32, 1109-1116.	2.2	27
47	Enzymatic ring-opening polymerization (ROP) of polylactones: roles of non-aqueous solvents. <i>Journal of Chemical Technology and Biotechnology</i> , 2018, 93, 9-19.	3.2	27
48	Nuclear magnetic relaxation of water in ionic-liquid solutions: determining the kosmotropicity of ionic liquids and its relationship with the enzyme enantioselectivity. <i>Journal of Chemical Technology and Biotechnology</i> , 2007, 82, 304-312.	3.2	25
49	Glymes as benign co-solvents for CaO-catalyzed transesterification of soybean oil to biodiesel. <i>Bioresource Technology</i> , 2013, 139, 107-112.	9.6	24
50	Glycol-functionalized ionic liquids for high-temperature enzymatic ring-opening polymerization. <i>RSC Advances</i> , 2018, 8, 36025-36033.	3.6	21
51	Enantioseparation of the esters of \pm -N-acetyl amino acids by lipase in ionic liquid. <i>Chirality</i> , 2005, 17, S240-S242.	2.6	20
52	The role of extracellular matrix stiffness in regulating cytoskeletal remodeling via vinculin in synthetic smooth muscle cells. <i>Biochemical and Biophysical Research Communications</i> , 2019, 508, 302-307.	2.1	20
53	Ionic liquids containing fluorinated β -diketonate anions: synthesis, characterization and potential applications. <i>New Journal of Chemistry</i> , 2013, 37, 909.	2.8	19
54	Ionic derivatives of betulinic acid exhibit antiviral activity against herpes simplex virus type-2 (HSV-2), but not HIV-1 reverse transcriptase. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 3168-3171.	2.2	19

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55	Concise Synthesis and Enzymatic Resolution of L-(+)-Homophenylalanine Hydrochloride. Enantiomer, 2002, 7, 1-3.	0.5	18
56	Glymes as new solvents for lipase activation and biodiesel preparation. Bioresource Technology, 2013, 129, 667-671.	9.6	17
57	DNA-based asymmetric catalysis: role of ionic solvents and glymes. RSC Advances, 2014, 4, 54051-54059.	3.6	17
58	Optimization of a process for carboxymethyl cellulose (CMC) preparation in mixed solvents. International Journal of Polymeric Materials and Polymeric Biomaterials, 2003, 52, 749-759.	3.4	16
59	Ionic liquids for coal dissolution, extraction and liquefaction. Journal of Chemical Technology and Biotechnology, 2020, 95, 2301-2310.	3.2	16
60	Microwave-Assisted Esterification of N-Acetyl-L-Phenylalanine Using Modified Mukaiyama's Reagents: A New Approach Involving Ionic Liquids. International Journal of Molecular Sciences, 2008, 9, 33-44.	4.1	14
61	Water-like ammonium-based ionic liquids for lipase activation and enzymatic polymerization. Process Biochemistry, 2020, 98, 59-64.	3.7	13
62	Myosin-catalyzed ATP hydrolysis elucidated by 31P NMR kinetic studies and 1H PFG-diffusion measurements. Analytical and Bioanalytical Chemistry, 2009, 395, 1453-1459.	3.7	11
63	Ether-functionalized ionic liquids for nonaqueous biocatalysis: Effect of different cation cores. Process Biochemistry, 2019, 81, 104-112.	3.7	11
64	Quadruplex DNA-based asymmetric catalysis of Michael addition: Effects of sonication, ligands, and solvents. Biotechnology Progress, 2016, 32, 891-898.	2.6	10
65	Water-like Dual-Functionalized Ionic Liquids for Enzyme Activation. ACS Omega, 2019, 4, 15234-15239.	3.5	9
66	Enzymatic polymerization to polyesters in nonaqueous solvents. Methods in Enzymology, 2019, 627, 1-21.	1.0	9
67	Characterization of the solubilizing ability of short-chained glycol-grafted ammonium and phosphonium ionic liquids. Journal of Molecular Liquids, 2020, 304, 112786.	4.9	9
68	Development of Abraham model correlations for short-chain glycol-grafted imidazolium and pyridinium ionic liquids from inverse gas-chromatographic measurements. Journal of Molecular Liquids, 2020, 317, 113983.	4.9	8
69	Meet Our Co-Editor. Mini-Reviews in Organic Chemistry, 2020, 17, 1-1.	1.3	8
70	Elucidation of spermidine interaction with nucleotide ATP by multiple NMR techniques. Magnetic Resonance in Chemistry, 2010, 48, 123-128.	1.9	6
71	Effect of betulinic acid and its ionic derivatives on M-MuLV replication. Biochemical and Biophysical Research Communications, 2018, 500, 365-369.	2.1	5
72	Enzyme activation by water-mimicking dual-functionalized ionic liquids. Molecular Catalysis, 2021, 515, 111882.	2.0	5

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73	A new equation of state (hsft) based on fractal theory. Chemical Engineering Communications, 2002, 189, 1155-1195.	2.6	4
74	Radial Distribution Functions In Liquids And Fractal Aggregates. Chemical Engineering Communications, 2005, 192, 145-154.	2.6	4
75	Functionalized ionic liquids for lignite dissolution and treatment. Journal of Chemical Technology and Biotechnology, 2021, 96, 3273-3281.	3.2	4
76	Chapter 5. Microwave-assisted Enzymatic Reactions in Aqueous Media. RSC Green Chemistry, 2010, , 123-144.	0.1	4
77	Lipase Activation and Stability Enhancement in Ionic Liquids. , 2016, , 99-152.		2
78	Current Studies on Some Physical Properties of Ionic Liquids. ChemInform, 2004, 35, no.	0.0	1
79	Ionic Liquids: Highly Effective Medium for Enantiopure Amino Acids via Enzymatic Resolution. ACS Symposium Series, 2005, , 111-123.	0.5	1
80	Microwave-induced inactivation of DNA-based hybrid catalyst in asymmetric catalysis. International Journal of Biological Macromolecules, 2016, 84, 367-371.	7.5	1
81	Characterizing the binding of nucleotide ATP on serum albumin by ³¹ P NMR diffusion. Canadian Journal of Chemistry, 2012, 90, 411-418.	1.1	0
82	Task-Specific Ionic Liquids for Electrochemical Applications. , 2015, , 253-281.		0
83	Biocatalysis for Cellulosic Alcohol and Biodiesel Preparation: Roles of (co-)Solvents. , 2020, , 213-213.		0