Xuebing Zhao

List of Publications by Year in descending order

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105 papers	7,394 citations	61857 43 h-index	56606 83 g-index
109 all docs	109 docs citations	109 times ranked	7410 citing authors

#	Article	IF	Citations
1	Organosolv pretreatment of lignocellulosic biomass for enzymatic hydrolysis. Applied Microbiology and Biotechnology, 2009, 82, 815-827.	1.7	964
2	Biomass recalcitrance. Part I: the chemical compositions and physical structures affecting the enzymatic hydrolysis of lignocellulose. Biofuels, Bioproducts and Biorefining, 2012, 6, 465-482.	1.9	707
3	Production of 2,5-furandicarboxylic acid (FDCA) from 5-hydroxymethylfurfural (HMF): recent progress focusing on the chemical-catalytic routes. Green Chemistry, 2018, 20, 5427-5453.	4.6	445
4	Lipase-catalyzed process for biodiesel production: Enzyme immobilization, process simulation and optimization. Renewable and Sustainable Energy Reviews, 2015, 44, 182-197.	8.2	297
5	Biomass recalcitrance. Part <scp>II</scp>: Fundamentals of different preâ€treatments to increase the enzymatic digestibility of lignocellulose. Biofuels, Bioproducts and Biorefining, 2012, 6, 561-579.	1.9	228
6	Lignocellulosic biomass as sustainable feedstock and materials for power generation and energy storage. Journal of Energy Chemistry, 2021, 57, 247-280.	7.1	225
7	Organosolv fractionating preâ€treatment of lignocellulosic biomass for efficient enzymatic saccharification: chemistry, kinetics, and substrate structures. Biofuels, Bioproducts and Biorefining, 2017, 11, 567-590.	1.9	181
8	Biotechnological production of succinic acid: current state and perspectives. Biofuels, Bioproducts and Biorefining, 2012, 6, 302-318.	1.9	177
9	Microbial conversion of biodiesel byproduct glycerol to triacylglycerols by oleaginous yeast Rhodosporidium toruloides and the individual effect of some impurities on lipid production. Biochemical Engineering Journal, 2012, 65, 30-36.	1.8	177
10	Peracetic acid pretreatment of sugarcane bagasse for enzymatic hydrolysis: a continued work. Journal of Chemical Technology and Biotechnology, 2008, 83, 950-956.	1.6	159
11	Effects of some inhibitors on the growth and lipid accumulation of oleaginous yeast Rhodosporidium toruloides and preparation of biodiesel by enzymatic transesterification of the lipid. Bioprocess and Biosystems Engineering, 2012, 35, 993-1004.	1.7	151
12	Preparation of peracetic acid from hydrogen peroxide. Journal of Molecular Catalysis A, 2007, 271, 246-252.	4.8	146
13	Kinetics of Strong Acid Hydrolysis of a Bleached Kraft Pulp for Producing Cellulose Nanocrystals (CNCs). Industrial & Engineering Chemistry Research, 2014, 53, 11007-11014.	1.8	142
14	Conversion of lignocellulose to biofuels and chemicals via sugar platform: An updated review on chemistry and mechanisms of acid hydrolysis of lignocellulose. Renewable and Sustainable Energy Reviews, 2021, 146, 111169.	8.2	138
15	A comparison of several organosolv pretreatments for improving the enzymatic hydrolysis of wheat straw: Substrate digestibility, fermentability and structural features. Applied Energy, 2015, 150, 224-232.	5.1	128
16	Downstream processing of biotechnological produced succinic acid. Applied Microbiology and Biotechnology, 2012, 95, 841-850.	1.7	127
17	Effect of several factors on peracetic acid pretreatment of sugarcane bagasse for enzymatic hydrolysis. Journal of Chemical Technology and Biotechnology, 2007, 82, 1115-1121.	1.6	122
18	Enhancement of the enzymatic digestibility of sugarcane bagasse by alkaliâ€“peracetic acid pretreatment. Enzyme and Microbial Technology, 2009, 44, 17-23.	1.6	118

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19	Comparative study on chemical pretreatment methods for improving enzymatic digestibility of crofton weed stem. Bioresource Technology, 2008, 99, 3729-3736.	4.8	99
20	Lipaseâ€catalyzed process for biodiesel production: Protein engineering and lipase production. Biotechnology and Bioengineering, 2014, 111, 639-653.	1.7	95
21	Characteristics of hydrogen and methane production from cornstalks by an augmented two- or three-stage anaerobic fermentation process. Bioresource Technology, 2009, 100, 2889-2895.	4.8	94
22	Fractionating pretreatment of sugarcane bagasse by aqueous formic acid with direct recycle of spent liquor to increase cellulose digestibilityâ€“the Formiline process. Bioresource Technology, 2012, 117, 25-32.	4.8	85
23	Non-ionic surfactants do not consistently improve the enzymatic hydrolysis of pure cellulose. Bioresource Technology, 2015, 182, 136-143.	4.8	84
24	Evaluation of the action of Tween 20 non-ionic surfactant during enzymatic hydrolysis of lignocellulose: Pretreatment, hydrolysis conditions and lignin structure. Bioresource Technology, 2018, 269, 329-338.	4.8	83
25	Preparation of peracetic acid from hydrogen peroxide, part II: Kinetics for spontaneous decomposition of peracetic acid in the liquid phase. Journal of Molecular Catalysis A, 2008, 284, 58-68.	4.8	81
26	Microbial oil production from various carbon sources and its use for biodiesel preparation. Biofuels, Bioproducts and Biorefining, 2013, 7, 65-77.	1.9	75
27	Batch and multi-step fed-batch enzymatic saccharification of Formiline-pretreated sugarcane bagasse at high solid loadings for high sugar and ethanol titers. Bioresource Technology, 2013, 135, 350-356.	4.8	71
28	Enzymatic hydrolysis and simultaneous saccharification and fermentation of alkali/peracetic acid-pretreated sugarcane bagasse for ethanol and 2,3-butanediol production. Enzyme and Microbial Technology, 2011, 49, 413-419.	1.6	68
29	Improving the enzymatic hydrolysis of dilute acid pretreated wheat straw by metal ion blocking of non-productive cellulase adsorption on lignin. Bioresource Technology, 2016, 208, 110-116.	4.8	66
30	Chemical and thermal characteristics of lignins isolated from Siam weed stem by acetic acid and formic acid delignification. Industrial Crops and Products, 2010, 32, 284-291.	2.5	64
31	High valueâ€added monomer chemicals and functional bioâ€based materials derived from polymeric components of lignocellulose by organosolv fractionation. Biofuels, Bioproducts and Biorefining, 2020, 14, 371-401.	1.9	63
32	Sustainable production of levulinic acid and its derivatives for fuel additives and chemicals: progress, challenges, and prospects. Green Chemistry, 2021, 23, 9198-9238.	4.6	61
33	Low-temperature microbial and direct conversion of lignocellulosic biomass to electricity: Advances and challenges. Renewable and Sustainable Energy Reviews, 2017, 71, 268-282.	8.2	59
34	Efficient Conversion of Lignin to Electricity Using a Novel Direct Biomass Fuel Cell Mediated by Polyoxometalates at Low Temperatures. ChemSusChem, 2016, 9, 197-207.	3.6	58
35	The fate of lignin during atmospheric acetic acid pretreatment of sugarcane bagasse and the impacts on cellulose enzymatic hydrolyzability for bioethanol production. Renewable Energy, 2018, 128, 200-209.	4.3	58
36	Kinetic model for glycan hydrolysis and formation of monosaccharides during dilute acid hydrolysis of sugarcane bagasse. Bioresource Technology, 2012, 105, 160-168.	4.8	57

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37	Novel mutant strains of Rhodosporidium toruloides by plasma mutagenesis approach and their tolerance for inhibitors in lignocellulosic hydrolyzate. Journal of Chemical Technology and Biotechnology, 2014, 89, 735-742.	1.6	53
38	Kinetics of Formic Acid-autocatalyzed Preparation of Performic Acid in Aqueous Phase. Chinese Journal of Chemical Engineering, 2011, 19, 964-971.	1.7	52
39	Robust enzymatic hydrolysis of Formiline-pretreated oil palm empty fruit bunches (EFB) for efficient conversion of polysaccharide to sugars and ethanol. Bioresource Technology, 2014, 166, 584-591.	4.8	50
40	Production of pulp, ethanol and lignin from sugarcane bagasse by alkali-peracetic acid delignification. Biomass and Bioenergy, 2011, 35, 2874-2882.	2.9	49
41	Kinetic Modeling and Mechanisms of Acid-Catalyzed Delignification of Sugarcane Bagasse by Aqueous Acetic Acid. Bioenergy Research, 2013, 6, 436-447.	2.2	45
42	A novel kinetic model for polysaccharide dissolution during atmospheric acetic acid pretreatment of sugarcane bagasse. Bioresource Technology, 2014, 151, 128-136.	4.8	45
43	A novel route for the flexible preparation of hydrocarbon jet fuels from biomass-based platform chemicals: a case of using furfural and 2,3-butanediol as feedstocks. Green Chemistry, 2018, 20, 2018-2026.	4.6	44
44	Characterization and comparison of Acetosolv and Milox lignin isolated from crofton weed stem. Journal of Applied Polymer Science, 2009, 114, 1295-1302.	1.3	43
45	Microwave Pretreatment of Substrates for Cellulase Production by Solid-State Fermentation. Applied Biochemistry and Biotechnology, 2010, 160, 1557-1571.	1.4	42
46	Phosphomolybdic acid and ferric iron as efficient electron mediators for coupling biomass pretreatment to produce bioethanol and electricity generation from wheat straw. Bioresource Technology, 2017, 228, 279-289.	4.8	40
47	Pretreatment of lignocellulosic biomass for efficient enzymatic saccharification of cellulose. , 2020, , 17-65.		40
48	Relative Significance of the Negative Impacts of Hemicelluloses on Enzymatic Cellulose Hydrolysis Is Dependent on Lignin Content: Evidence from Substrate Structural Features and Protein Adsorption. ACS Sustainable Chemistry and Engineering, 2016, 4, 6668-6679.	3.2	39
49	Multi-products co-production improves the economic feasibility of cellulosic ethanol: A case of Formiline pretreatment-based biorefining. Applied Energy, 2019, 250, 229-244.	5.1	39
50	A comparison of different oxidative pretreatments on polysaccharide hydrolyzability and cell wall structure for interpreting the greatly improved enzymatic digestibility of sugarcane bagasse by delignification. Bioresources and Bioprocessing, 2020, 7, .	2.0	38
51	Pretreatment of Siam weed stem by several chemical methods for increasing the enzymatic digestibility. Biotechnology Journal, 2010, 5, 493-504.	1.8	36
52	Organic acid catalyzed production of platform chemical 5-hydroxymethylfurfural from fructose: Process comparison and evaluation based on kinetic modeling. Arabian Journal of Chemistry, 2020, 13, 7430-7444.	2.3	36
53	Biological co-production of ethanol and biodiesel from wheat straw: a case of dilute acid pretreatment. RSC Advances, 2014, 4, 37878-37888.	1.7	32
54	Kinetic modeling of atmospheric formic acid pretreatment of wheat straw with â€œpotential degree of reactionâ€•models. RSC Advances, 2015, 5, 20992-21000.	1.7	28

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55	Renewable microbial lipid production from Oleaginous Yeast: some surfactants greatly improved lipid production of Rhodosporidium toruloides. World Journal of Microbiology and Biotechnology, 2016, 32, 107.	1.7	27
56	Integrative transcriptomic and proteomic analysis of the mutant lignocellulosic hydrolyzateâ€tolerant Rhodosporidium toruloides. Engineering in Life Sciences, 2017, 17, 249-261.	2.0	27
57	Solvent-based delignification and decrystallization of wheat straw for efficient enzymatic hydrolysis of cellulose and ethanol production with low cellulase loadings. RSC Advances, 2017, 7, 10609-10617.	1.7	26
58	Structural Features of Formiline Pretreated Sugar Cane Bagasse and Their Impact on the Enzymatic Hydrolysis of Cellulose. ACS Sustainable Chemistry and Engineering, 2016, 4, 1255-1261.	3.2	25
59	Bioconversion of glycerol into lipids by Rhodosporidium toruloides in a twoâ€stage process and characterization of lipid properties. Engineering in Life Sciences, 2017, 17, 303-313.	2.0	25
60	Life cycle assessment of organosolv biorefinery designs with the complete use of biomass. Energy Conversion and Management, 2021, 246, 114653.	4.4	25
61	A novel process on lipid extraction from microalgae for biodiesel production. Energy, 2016, 115, 963-968.	4.5	24
62	Catalytic Conversion of Xylose to Furfural by p-Toluenesulfonic Acid (pTSA) and Chlorides: Process Optimization and Kinetic Modeling. Molecules, 2021, 26, 2208.	1.7	24
63	Response mechanisms of Saccharomyces cerevisiae to the stress factors present in lignocellulose hydrolysate and strategies for constructing robust strains. , 2022, 15, 28.		24
64	Isolation of oleaginous yeast (Rhodosporidium toruloides) mutants tolerant of sugarcane bagasse hydrolysate. Bioscience, Biotechnology and Biochemistry, 2014, 78, 336-342.	0.6	23
65	Construction of electron transfer chains with methylene blue and ferric ions for direct conversion of lignocellulosic biomass to electricity in a wide pH range. Applied Catalysis B: Environmental, 2020, 265, 118578.	10.8	23
66	Coupling biomass pretreatment for enzymatic hydrolysis and direct biomass-to-electricity conversion with molybdovanadophosphoric heteropolyacids as anode electron transfer carriers. Journal of Energy Chemistry, 2021, 58, 133-146.	7.1	23
67	Studying Nonproductive Adsorption Ability and Binding Approach of Cellobiohydrolase to Lignin during Bioconversion of Lignocellulose. Energy & Fuels, 2017, 31, 14393-14400.	2.5	22
68	Polyoxometalateâ€Mediated Lignin Oxidation for Efficient Enzymatic Production of Sugars and Generation of Electricity from Lignocellulosic Biomass. Energy Technology, 2017, 5, 1179-1185.	1.8	22
69	Kinetics of lipase recovery from the aqueous phase of biodiesel production by macroporous resin adsorption and reuse of the adsorbed lipase for biodiesel preparation. Enzyme and Microbial Technology, 2013, 52, 226-233.	1.6	21
70	Single-Stage Pulping of Sugarcane Bagasse with Peracetic Acid. Journal of Wood Chemistry and Technology, 2011, 31, 1-25.	0.9	20
71	Phenomenological modeling and evaluation of formic acid pretreatment of wheat straw with an extended combined severity factor for biomass fractionation and enzymatic saccharification to produce bioethanol. Journal of the Taiwan Institute of Chemical Engineers, 2017, 81, 140-149.	2.7	18
72	Evaluation of the mass transfer effects on delignification kinetics of atmospheric acetic acid fractionation of sugarcane bagasse with a shrinking-layer model. Bioresource Technology, 2018, 261, 52-61.	4.8	18

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73	Conversion of Glucose to 5-Hydroxymethylfurfural by Co-catalysis of p-Toluenesulfonic Acid (pTSA) and Chlorides: A Comparison Based on Kinetic Modeling. Waste and Biomass Valorization, 2021, 12, 3271-3286.	1.8	18
74	Preparation of Epoxidized Fatty Acid Methyl Ester with in situ Auto-Catalyzed Generation of Performic Acid and the Influence of Impurities on Epoxidation. Waste and Biomass Valorization, 2018, 9, 1881-1891.	1.8	16
75	Haze to electricity: Efficiently harvesting electric energy from air pollutants by construction of bioinspired electron transport chains in light- and heat-driven liquid flow fuel cells. Chemical Engineering Journal, 2021, 420, 129716.	6.6	15
76	All-iron ions mediated electron transfer for biomass pretreatment coupling with direct generation of electricity from lignocellulose. Bioresource Technology, 2022, 344, 126189.	4.8	15
77	Enzymatic ethanolysis of fish oil for selective concentration of polyunsaturated fatty acids (PUFAs) with flexible production of corresponding glycerides and ethyl esters. Journal of Chemical Technology and Biotechnology, 2018, 93, 2399-2405.	1.6	14
78	Overexpressing CCW12 in Saccharomyces cerevisiae enables highly efficient ethanol production from lignocellulose hydrolysates. Bioresource Technology, 2021, 337, 125487.	4.8	14
79	Kinetic Modeling of Fermentative Production of 1, 3-Propanediol by Klebsiella pneumoniae HR526 with Consideration of Multiple Product Inhibitions. Applied Biochemistry and Biotechnology, 2013, 169, 312-326.	1.4	13
80	Engineering surface hydrophobicity improves activity ofBacillus thermocatenulatuslipase 2 enzyme. Biotechnology Journal, 2015, 10, 1762-1769.	1.8	13
81	Visualizing cellulase adsorption and quantitatively determining cellulose accessibility with an updated fungal cellulose-binding module-based fluorescent probe protein. Biotechnology for Biofuels, 2018, 11, 105.	6.2	13
82	Hierarchy Nano- and Ultrastructure of Lignocellulose and Its Impact on the Bioconversion of Cellulose. Green Chemistry and Sustainable Technology, 2017, , 117-151.	0.4	12
83	Ferricyanide and vanadyl (V) mediated electron transfer for converting lignin to electricity by liquid flow fuel cell with power density reaching 200ÂmW/cm2. Applied Energy, 2021, 304, 117927.	5.1	12
84	Conversion of fatty acid methyl ester to epoxy plasticizer by auto-catalyzed in situ formation of performic acid: Kinetic modeling and application of the model. Journal of Cleaner Production, 2020, 259, 120791.	4.6	11
85	Pretreatment of Rice Hulls for Cellulase Production by Solid Substrate Fermentation. Journal of Wood Chemistry and Technology, 2007, 27, 65-71.	0.9	9
86	Integration of heterologous 4-hydroxybenzoic acid transport proteins in Rhodobacter sphaeroides for enhancement of coenzyme Q₁₀production. RSC Advances, 2017, 7, 17346-17352.	1.7	9
87	A Weibull statisticsâ€based lignocellulose saccharification model and a builtâ€in parameter accurately predict lignocellulose hydrolysis performance. Biotechnology Journal, 2015, 10, 1424-1433.	1.8	8
88	Heterogeneity of lignocellulose must be considered for kinetic study: A case on formic acid fractionation of sugarcane bagasse with different pseudo-homogeneous kinetic models. Renewable Energy, 2020, 162, 2246-2258.	4.3	8
89	Biofuels Production Development and Prospects in China. Journal of Biobased Materials and Bioenergy, 2010, 4, 221-242.	0.1	8
90	PRODUCTION OF 2,3-BUTANEDIOL BY KLEBSIELLA PNEUMONIAE FROM ENZYMATIC HYDROLYZATE OF SUGARCANE BAGASSE. BioResources, 2012, 7, .	0.5	8

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91	Exploration of sodium lignosulphonate's effects on lipid production by Rhodosporidium toruloides. Process Biochemistry, 2015, 50, 424-431.	1.8	7
92	Kinetic modelling of acid-catalyzed liquid-phase dehydration of bio-based 2, 3-butanediol considering a newly identified by-product and an updated reaction network. Chemical Engineering Journal, 2020, 389, 124451.	6.6	7
93	Insight into the negative effects of lignin on enzymatic hydrolysis of cellulose for biofuel production via selective oxidative delignification and inhibitive actions of phenolic model compounds. Renewable Energy, 2022, 185, 196-207.	4.3	7
94	Simulation and experimentation on the gas holdup characteristics of a novel oscillating airlift loop reactor. Journal of Chemical Technology and Biotechnology, 2013, 88, 704-710.	1.6	5
95	Synthesis, characterization and application of a new biomass-based antioxidant derived from vanillin and methyl ethyl ketone. Journal of Cleaner Production, 2021, 316, 128315.	4.6	5
96	Asymmetric acidic-alkaline design achieves high power density for a direct ascorbate liquid fuel cell without using noble metal catalysts. Energy Conversion and Management, 2022, 255, 115343.	4.4	5
97	Production of biojet fuels from biomass. , 2019, , 127-165.		4
98	A novel strategy for 1,3-propanediol recovery from fermentation broth and control of product colority using scraped thin-film evaporation for desalination. RSC Advances, 2015, 5, 48269-48274.	1.7	3
99	Promoting transfer of endogenous electrons well increases the carbon and energy efficiency of lignocellulosic biomass conversion to fuels and chemicals. Energy Conversion and Management, 2022, 258, 115552.	4.4	3
100	Deconstruction of Lignocellulose Recalcitrance by Organosolv Fractionating Pretreatment for Enzymatic Hydrolysis. , 2021, , 23-56.		1
101	Phenomenological Modeling of Formic Acid Fractionation of Sugarcane Bagasse by Integration of Operation Parameters as an Extended Combined Severity Factor. Molecules, 2021, 26, 2753.	1.7	1
102	Production of fermentable sugars and lignin from Siam weed stem. Journal of Bioscience and Bioengineering, 2009, 108, S44.	1.1	0
103	Cover Image, Volume 11, Issue 3. Biofuels, Bioproducts and Biorefining, 2017, 11, i-i.	1.9	0
104	Chemicals, Materials, and Catalysts from Natural Renewable Lignocelluloses. International Journal of Polymer Science, 2018, 2018, 1-2.	1.2	0
105	Cover Image, Volume 14, Issue 2. Biofuels, Bioproducts and Biorefining, 2020, 14, i.	1.9	0