Hasan Jameel

List of Publications by Year
in descending order

100 papers	4,448 citations	81743 39 h-index	114278 63 g-index
100 all docs	100 docs citations	100 times ranked	4174 citing authors

#	Article	IF	Citations
1	Quantification of ligninâ€"carbohydrate linkages with high-resolution NMR spectroscopy. Planta, 2011, 233, 1097-1110.	1.6	371
2	Lignin-enzyme interaction: A roadblock for efficient enzymatic hydrolysis of lignocellulosics. Renewable and Sustainable Energy Reviews, 2022, 154, 111822.	8.2	211
3	The effect of delignification of forest biomass on enzymatic hydrolysis. Bioresource Technology, 2011, 102, 9083-9089.	4.8	177
4	Effect of Lignin Chemistry on the Enzymatic Hydrolysis of Woody Biomass. ChemSusChem, 2014, 7, 1942-1950.	3.6	139
5	Fractionation and Characterization of Kraft Lignin by Sequential Precipitation with Various Organic Solvents. ACS Sustainable Chemistry and Engineering, 2017, 5, 835-842.	3.2	129
6	Phenolation to Improve Lignin Reactivity toward Thermosets Application. ACS Sustainable Chemistry and Engineering, 2018, 6, 5504-5512.	3.2	125
7	Structural Characterization of Pine Kraft Lignin: BioChoice Lignin vs Indulin AT. Journal of Wood Chemistry and Technology, 2016, 36, 432-446.	0.9	111
8	Lignin Structural Variation in Hardwood Species. Journal of Agricultural and Food Chemistry, 2012, 60, 4923-4930.	2.4	110
9	Green Liquor Pretreatment of Mixed Hardwood for Ethanol Production in a Repurposed Kraft Pulp Mill. Journal of Wood Chemistry and Technology, 2010, 30, 86-104.	0.9	106
10	Biomass pretreatments capable of enabling lignin valorization in a biorefinery process. Current Opinion in Biotechnology, 2016, 38, 39-46.	3.3	106
11	Wood Based Lignin Reactions Important to the Biorefinery and Pulp and Paper Industries. BioResources, 2012, 8, .	0.5	101
12	Production of fermentable sugars from sugarcane bagasse by enzymatic hydrolysis after autohydrolysis and mechanical refining. Bioresource Technology, 2015, 180, 97-105.	4.8	96
13	Techno-Economic Assessment, Scalability, and Applications of Aerosol Lignin Micro- and Nanoparticles. ACS Sustainable Chemistry and Engineering, 2018, 6, 11853-11868.	3.2	95
14	Conversion Economics of Forest Biomaterials: Risk and Financial Analysis of <scp>CNC</scp> Manufacturing. Biofuels, Bioproducts and Biorefining, 2017, 11, 682-700.	1.9	91
15	Effects of sodium carbonate pretreatment on the chemical compositions and enzymatic saccharification of rice straw. Bioresource Technology, 2012, 124, 283-291.	4.8	84
16	Green liquor pretreatment for improving enzymatic hydrolysis of corn stover. Bioresource Technology, 2012, 124, 299-305.	4.8	84
17	Down-regulation of glycosyltransferase 8D genes in Populus trichocarpa caused reduced mechanical strength and xylan content in wood. Tree Physiology, 2011, 31, 226-236.	1.4	73
18	Novel process for the coproduction of xylo-oligosaccharides, fermentable sugars, and lignosulfonates from hardwood. Bioresource Technology, 2016, 219, 600-607.	4.8	71

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19	Liquefaction of kraft lignin by hydrocracking with simultaneous use of a novel dual acid-base catalyst and a hydrogenation catalyst. Bioresource Technology, 2017, 243, 100-106.	4.8	69
20	Furfural production from biomass pretreatment hydrolysate using vapor-releasing reactor system. Bioresource Technology, 2018, 252, 165-171.	4.8	69
21	Enhancement in enzymatic hydrolysis by mechanical refining for pretreated hardwood lignocellulosics. Bioresource Technology, 2013, 147, 353-360.	4.8	67
22	Enzymatic hydrolysis of autohydrolyzed wheat straw followed by refining to produce fermentable sugars. Bioresource Technology, 2014, 152, 259-266.	4.8	66
23	Effects of hardwood structural and chemical characteristics on enzymatic hydrolysis for biofuel production. Bioresource Technology, 2012, 110, 232-238.	4.8	60
24	Strategies to achieve high-solids enzymatic hydrolysis of dilute-acid pretreated corn stover. Bioresource Technology, 2015, 187, 43-48.	4.8	59
25	Integration of pulp and paper technology with bioethanol production. Biotechnology for Biofuels, 2013, 6, 13.	6.2	56
26	A Novel Cellulose Nanocrystals-Based Approach To Improve the Mechanical Properties of Recycled Paper. ACS Sustainable Chemistry and Engineering, 2013, 1, 1584-1592.	3.2	54
27	The influence of lignin content and structure on hemicellulose alkaline extraction for non-wood and hardwood lignocellulosic biomass. Cellulose, 2019, 26, 3219-3230.	2.4	53
28	Hard to remove water in cellulose fibers characterized by high resolution thermogravimetric analysis - methods development. Cellulose, 2006, 13, 23-30.	2.4	51
29	High-Strength Antibacterial Chitosanâ€"Cellulose Nanocrystal Composite Tissue Paper. Langmuir, 2019, 35, 104-112.	1.6	51
30	Novel Green Liquor Pretreatment of Loblolly Pine Chips to Facilitate Enzymatic Hydrolysis into Fermentable Sugars for Ethanol Production. Journal of Wood Chemistry and Technology, 2010, 30, 205-218.	0.9	50
31	Reduction of Enzyme Dosage by Oxygen Delignification and Mechanical Refining for Enzymatic Hydrolysis of Green Liquor-Pretreated Hardwood. Applied Biochemistry and Biotechnology, 2011, 165, 832-844.	1.4	50
32	Autohydrolysis Pretreatment of Waste Wheat Straw for Cellulosic Ethanol Production in a Co-located Straw Pulp Mill. Applied Biochemistry and Biotechnology, 2015, 175, 1193-1210.	1.4	50
33	Understanding lignin micro- and nanoparticle nucleation and growth in aqueous suspensions by solvent fractionation. Green Chemistry, 2021, 23, 1001-1012.	4.6	47
34	Comparison of sodium carbonateâ€"oxygen and sodium hydroxideâ€"oxygen pretreatments on the chemical composition and enzymatic saccharification of wheat straw. Bioresource Technology, 2014, 161, 63-68.	4.8	46
35	Soluble Lignin Recovered from Biorefinery Pretreatment Hydrolyzate Characterized by Ligninâ€"Carbohydrate Complexes. ACS Sustainable Chemistry and Engineering, 2017, 5, 10763-10771.	3.2	46
36	Effect of ozone and autohydrolysis pretreatments on enzymatic digestibility of coastal Bermuda grass. BioResources, 2010, 5, 1084-1101.	0.5	46

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37	Determination of Furfural and Hydroxymethylfurfural Formed From Biomass Under Acidic Conditions. Journal of Wood Chemistry and Technology, 2009, 29, 265-276.	0.9	45
38	The influence of ligninâ€“carbohydrate complexes on the cellulase-mediated saccharification II: Transgenic hybrid poplars (Populus nigra L. and Populus maximowiczii A.). Fuel, 2014, 116, 56-62.	3.4	44
39	Interactions between Cellulolytic Enzymes with Native, Autohydrolysis, and Technical Lignins and the Effect of a Polysorbate Amphiphile in Reducing Nonproductive Binding. Biomacromolecules, 2015, 16, 3878-3888.	2.6	39
40	Understanding the Effect of Machine Technology and Cellulosic Fibers on Tissue Properties â€“ A Review. BioResources, 2018, 13, .	0.5	39
41	Evaluation of the factors affecting avicel reactivity using multiâ€stage enzymatic hydrolysis. Biotechnology and Bioengineering, 2012, 109, 1131-1139.	1.7	37
42	How Well Do MWL and CEL Preparations Represent the Whole Hardwood Lignin?. Journal of Wood Chemistry and Technology, 2015, 35, 17-26.	0.9	37
43	The elucidation of the lignin structure effect on the cellulase-mediated saccharification by genetic engineering poplars (Populus nigra L.ÂÃ—ÂPopulus maximowiczii A.). Biomass and Bioenergy, 2013, 58, 52-57.	2.9	35
44	Split addition of enzymes in enzymatic hydrolysis at high solids concentration to increase sugar concentration for bioethanol production. Journal of Industrial and Engineering Chemistry, 2012, 18, 707-714.	2.9	34
45	Xylooligosaccharides as prebiotics from biomass autohydrolyzate. LWT - Food Science and Technology, 2019, 111, 703-710.	2.5	34
46	Life Cycle Assessment of lignin extraction in a softwood kraft pulp mill. Nordic Pulp and Paper Research Journal, 2016, 31, 30-40.	0.3	33
47	Using micro- and nanofibrillated cellulose as a means to reduce weight of paper products: A review. BioResources, 2020, 15, 4553-4590.	0.5	33
48	Risk management consideration in the bioeconomy. Biofuels, Bioproducts and Biorefining, 2017, 11, 549-566.	1.9	32
49	Lignin fractionation from laboratory to commercialization: chemistry, scalability and techno-economic analysis. Green Chemistry, 2020, 22, 7448-7459.	4.6	32
50	The Cellulase-Mediated Saccharification on Wood Derived from Transgenic Low-Lignin Lines of Black Cottonwood (Populus trichocarpa). Applied Biochemistry and Biotechnology, 2012, 168, 947-955.	1.4	31
51	Micro- and nanofibrillated cellulose from virgin and recycled fibers: A comparative study of its effects on the properties of hygiene tissue paper. Carbohydrate Polymers, 2021, 254, 117430.	5.1	29
52	Improved Protocol for Alkaline Nitrobenzene Oxidation of Woody and Non-Woody Biomass. Journal of Wood Chemistry and Technology, 2015, 35, 52-61.	0.9	28
53	Comparison of wood and non-wood market pulps for tissue paper application. BioResources, 2019, 14, 6781-6810.	0.5	28
54	Economic evaluation of the conversion of industrial paper sludge to ethanol. Energy Economics, 2014, 44, 281-290.	5.6	27

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55	A New Class of Biobased Paper Dry Strength Agents: Synthesis and Characterization of Soy-Based Polymers. ACS Sustainable Chemistry and Engineering, 2015, 3, 524-532.	3.2	27
56	The Topochemistry of Cellulose Nanofibrils as a Function of Mechanical Generation Energy. ACS Sustainable Chemistry and Engineering, 2020, 8, 1471-1478.	3.2	27
57	Comparison of pretreatment protocols for cellulase-mediated saccharification of wood derived from transgenic low-xylan lines of cottonwood (P. trichocarpa). Biomass and Bioenergy, 2011, 35, 3514-3521.	2.9	26
58	Comparison of lab, pilot, and industrial scale low consistency mechanical refining for improvements in enzymatic digestibility of pretreated hardwood. Bioresource Technology, 2014, 167, 514-520.	4.8	25
59	Reactivity improvement by phenolation of wheat straw lignin isolated from a biorefinery process. New Journal of Chemistry, 2019, 43, 2238-2246.	1.4	24
60	Sodium sulfiteâ€“formaldehyde pretreatment of mixed hardwoods and its effect on enzymatic hydrolysis. Bioresource Technology, 2013, 135, 109-115.	4.8	22
61	Upcycling strategies for old corrugated containerboard to attain high-performance tissue paper: A viable answer to the packaging waste generation dilemma. Resources, Conservation and Recycling, 2021, 175, 105854.	5.3	20
62	Integrated conversion, financial, and risk modeling of cellulosic ethanol from woody and nonâ€woody biomass via dilute acid preâ€treatment. Biofuels, Bioproducts and Biorefining, 2014, 8, 755-769.	1.9	19
63	Lignocentric analysis of a carbohydrate-producing lignocellulosic biorefinery process. Bioresource Technology, 2017, 241, 857-867.	4.8	19
64	Lignocellulosic Fibers from Renewable Resources Using Green Chemistry for a Circular Economy. Global Challenges, 2021, 5, 2000065.	1.8	19
65	A systematic examination of the dynamics of water-cellulose interactions on capillary force-induced fiber collapse. Carbohydrate Polymers, 2022, 295, 119856.	5.1	19
66	Improved understanding of technical lignin functionalization through comprehensive structural characterization of fractionated pine kraft lignins modified by the Mannich reaction. Green Chemistry, 2021, 23, 7122-7136.	4.6	18
67	Coproduction of Ethanol and Lignosulfonate From Moso Bamboo Residues by Fermentation and Sulfomethylation. Waste and Biomass Valorization, 2017, 8, 965-974.	1.8	17
68	Performance and sustainability vs. the shelf price of tissue paper kitchen towels. BioResources, 2018, 13, 6868-6892.	0.5	17
69	Field-Grown Transgenic Hybrid Poplar with Modified Lignin Biosynthesis to Improve Enzymatic Saccharification Efficiency. ACS Sustainable Chemistry and Engineering, 2017, 5, 2407-2414.	3.2	16
70	Impact of hardwood species on production cost of second generation ethanol. Bioresource Technology, 2012, 117, 193-200.	4.8	14
71	Quantification of bound and free enzymes during enzymatic hydrolysis and their reactivities on cellulose and lignocellulose. Bioresource Technology, 2013, 147, 369-377.	4.8	14
72	Comparison between uncreped and creped handsheets on tissue paper properties using a creping simulator unit. Cellulose, 2020, 27, 5981-5999.	2.4	14

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73	Tracing Sweetgum Lignin's Molecular Properties through Biorefinery Processing. ChemSusChem, 2020, 13, 4613-4623.	3.6	14
74	Catalytic Conversion of Biomass Hydrolysate into 5-Hydroxymethylfurfural. Industrial & Engineering Chemistry Research, 2017, 56, 14447-14453.	1.8	12
75	Starch Derivatives that Contribute Significantly to the Bonding and Antibacterial Character of Recycled Fibers. ACS Omega, 2018, 3, 5260-5265.	1.6	12
76	A general Life Cycle Assessment framework for sustainable bleaching: A case study of peracetic acid bleaching of wood pulp. Journal of Cleaner Production, 2021, 290, 125854.	4.6	12
77	Techno-Economic Analysis of the Optimum Softwood Lignin Content for the Production of Bioethanol in a Repurposed Kraft Mill. BioResources, 2014, 9, .	0.5	12
78	Effect of Additives on Polysaccharide Retention in Green Liquor Pretreatment of Loblolly Pine for Enzymatic Hydrolysis. Journal of Wood Chemistry and Technology, 2012, 32, 317-327.	0.9	11
79	A ternary composite oxides S₂O₈^{2âˆ’}/ZrO₂â€“TiO₂â€“SiO₂ as an efficient solid super acid catalyst for depolymerization of lignin. RSC Advances, 2017, 7, 50027-50034.	1.7	11
80	Effect of Mechanical Refining Energy on the Enzymatic Digestibility of Lignocellulosic Biomass. Industrial & Engineering Chemistry Research, 2018, 57, 14648-14655.	1.8	11
81	Wood characteristics and enzymatic saccharification efficiency of field-grown transgenic black cottonwood with altered lignin content and structure. Cellulose, 2015, 22, 683-693.	2.4	10
82	3D Photoinduced Spatiotemporal Resolution of Cellulose-Based Hydrogels for Fabrication of Biomedical Devices. ACS Applied Bio Materials, 2020, 3, 5007-5019.	2.3	10
83	Optimization of Pilot Scale Mechanical Disk Refining for Improvements in Enzymatic Digestibility of Pretreated Hardwood Lignocellulosics. BioResources, 2017, 12, .	0.5	9
84	Comparison of One-Stage Batch and Fed-Batch Enzymatic Hydrolysis of Pretreated Hardwood for the Production of Biosugar. Applied Biochemistry and Biotechnology, 2018, 184, 1441-1452.	1.4	9
85	Enhancement of Enzymatic Saccharification of Poplar by Green Liquor Pretreatment. BioResources, 2014, 9, .	0.5	8
86	Hydrophobic resin treatment of hydrothermal autohydrolysate for prebiotic applications. RSC Advances, 2019, 9, 31819-31827.	1.7	7
87	Process Simulation-Based Life Cycle Assessment of Dissolving Pulps. Environmental Science & Technology, 2022, 56, 4578-4586.	4.6	7
88	Chitosan-Based Reagents Endow Recycled Paper Fibers with Remarkable Physical and Antimicrobial Properties. Industrial & Engineering Chemistry Research, 2016, 55, 7282-7286.	1.8	6
89	Chemical Study of Kraft Lignin during Alkaline Delignification of<i>E. urophylla</i>x<i>E. grandis</i>Hybrid in Low and High Residual Effective Alkali. ACS Sustainable Chemistry and Engineering, 2019, 7, 10274-10282.	3.2	6
90	Carbon Footprint of Bleached Softwood Fluff Pulp: Detailed Process Simulation and Environmental Life Cycle Assessment to Understand Carbon Emissions. ACS Sustainable Chemistry and Engineering, 2022, 10, 9029-9040.	3.2	6

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91	Process Evaluation of Enzymatic Hydrolysis with Filtrate Recycle for the Production of High Concentration Sugars. Applied Biochemistry and Biotechnology, 2012, 166, 839-855.	1.4	5
92	Using micro- and nanofibrillated cellulose as a means to reduce weight of paper products: A review. BioResources, 2020, 15, 4553-4590.	0.5	5
93	High-performance sustainable tissue paper from agricultural residue: a case study on fique fibers from Colombia. Cellulose, 2022, 29, 6907-6924.	2.4	5
94	EFFECT OF LIGNIN ON ENZYMATIC SACCHARIFICATION OF HARDWOOD AFTER GREEN LIQUOR AND SULFURIC ACID PRETREATMENTS. BioResources, 2012, 7, .	0.5	4
95	Lignin-containing micro/nanofibrillated cellulose to strengthen recycled fibers for lightweight sustainable packaging solutions. Carbohydrate Polymer Technologies and Applications, 2021, 2, 100135.	1.6	4
96	Effect of the Two-Stage Autohydrolysis of Hardwood on the Enzymatic Saccharification and Subsequent Fermentation with an Efficient Xylose-Utilizing Saccharomyces cerevisiae. BioResources, 2016, 11, .	0.5	3
97	Fiber fractionation to understand the effect of mechanical refining on fiber structure and resulting enzymatic digestibility of biomass. Biotechnology and Bioengineering, 2020, 117, 924-932.	1.7	2
98	Effects of Lignin Contents and Delignification Methods on Enzymatic Saccharification of Loblolly Pine. Industrial & Engineering Chemistry Research, 2020, 59, 8532-8537.	1.8	2
99	Applicability of biomass autohydrolyzates as corrosion inhibiting deicing agents. RSC Advances, 2020, 10, 43282-43289.	1.7	1
100	Economics of Ethanol Production in a Repurposed Kraft Pulp Mill. Kami Pa Gikyoshi/Japan Tappi Journal, 2014, 68, 49-53.	0.1	0