Huizhen Hu

List of Publications by Year
in descending order

64 papers	5,191 citations	87888 38 h-index	110387 64 g-index
65 all docs	65 docs citations	65 times ranked	4003 citing authors

#	Article	IF	Citations
1	Molecular Analysis of Cellulose Biosynthesis inArabidopsis. Science, 1998, 279, 717-720.	12.6	777
2	Sitosterol-beta -glucoside as Primer for Cellulose Synthesis in Plants. Science, 2002, 295, 147-150.	12.6	372
3	Cellulosic ethanol production: Progress, challenges and strategies for solutions. Biotechnology Advances, 2019, 37, 491-504.	11.7	260
4	Expression profiling and integrative analysis of the CESA/CSL superfamily in rice. BMC Plant Biology, 2010, 10, 282.	3.6	240
5	Hemicelluloses negatively affect lignocellulose crystallinity for high biomass digestibility under NaOH and H2SO4 pretreatments in Miscanthus. Biotechnology for Biofuels, 2012, 5, 58.	6.2	231
6	Fractionation of carbohydrates in Arabidopsis root cell walls shows that three radial swelling loci are specifically involved in cellulose production. Planta, 2000, 211, 406-414.	3.2	227
7	Genetic modification of plant cell walls to enhance biomass yield and biofuel production in bioenergy crops. Biotechnology Advances, 2016, 34, 997-1017.	11.7	175
8	Tween-80 is effective for enhancing steam-exploded biomass enzymatic saccharification and ethanol production by specifically lessening cellulase absorption with lignin in common reed. Applied Energy, 2016, 175, 82-90.	10.1	153
9	Os<scp>CESA</scp>9 conservedâ€site mutation leads to largely enhanced plant lodging resistance and biomass enzymatic saccharification by reducing cellulose <scp>DP</scp> and crystallinity in rice. Plant Biotechnology Journal, 2017, 15, 1093-1104.	8.3	143
10	Highâ€level hemicellulosic arabinose predominately affects lignocellulose crystallinity for genetically enhancing both plant lodging resistance and biomass enzymatic digestibility in rice mutants. Plant Biotechnology Journal, 2015, 13, 514-525.	8.3	139
11	Three lignocellulose features that distinctively affect biomass enzymatic digestibility under NaOH and H2SO4 pretreatments in Miscanthus. Bioresource Technology, 2013, 130, 30-37.	9.6	111
12	Lignin extraction distinctively enhances biomass enzymatic saccharification in hemicelluloses-rich Miscanthus species under various alkali and acid pretreatments. Bioresource Technology, 2015, 183, 248-254.	9.6	109
13	Arabinose substitution degree in xylan positively affects lignocellulose enzymatic digestibility after various NaOH/H2SO4 pretreatments in Miscanthus. Bioresource Technology, 2013, 130, 629-637.	9.6	108
14	Biomass digestibility is predominantly affected by three factors of wall polymer features distinctive in wheat accessions and rice mutants. Biotechnology for Biofuels, 2013, 6, 183.	6.2	106
15	Mild alkali-pretreatment effectively extracts guaiacyl-rich lignin for high lignocellulose digestibility coupled with largely diminishing yeast fermentation inhibitors in Miscanthus. Bioresource Technology, 2014, 169, 447-454.	9.6	101
16	Steam explosion distinctively enhances biomass enzymatic saccharification of cotton stalks by largely reducing cellulose polymerization degree in G. barbadense and G. hirsutum. Bioresource Technology, 2015, 181, 224-230.	9.6	100
17	A finalized determinant for complete lignocellulose enzymatic saccharification potential to maximize bioethanol production in bioenergy Miscanthus. Biotechnology for Biofuels, 2019, 12, 99.	6.2	92
18	Genetic Engineering of Energy Crops: A Strategy for Biofuel Production in ChinaFree Access. Journal of Integrative Plant Biology, 2011, 53, 143-150.	8.5	87

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19	Ectopic expression of a novel <i>OsExtensinâ€like</i> gene consistently enhances plant lodging resistance by regulating cell elongation and cell wall thickening in rice. Plant Biotechnology Journal, 2018, 16, 254-263.	8.3	74
20	A rapid and consistent near infrared spectroscopic assay for biomass enzymatic digestibility upon various physical and chemical pretreatments in Miscanthus. Bioresource Technology, 2012, 121, 274-281.	9.6	71
21	Mild chemical pretreatments are sufficient for bioethanol production in transgenic rice straws overproducing glucosidase. Green Chemistry, 2018, 20, 2047-2056.	9.0	70
22	An integrative analysis of four CESA isoforms specific for fiber cellulose production between Gossypium hirsutum and Gossypium barbadense. Planta, 2013, 237, 1585-1597.	3.2	68
23	Overproduction of native endo-Î²-1,4-glucanases leads to largely enhanced biomass saccharification and bioethanol production by specific modification of cellulose features in transgenic rice. Biotechnology for Biofuels, 2019, 12, 11.	6.2	68
24	Cascading of engineered bioenergy plants and fungi sustainable for low-cost bioethanol and high-value biomaterials under green-like biomass processing. Renewable and Sustainable Energy Reviews, 2021, 137, 110586.	16.4	68
25	AtCesA8-driven OsSUS3 expression leads to largely enhanced biomass saccharification and lodging resistance by distinctively altering lignocellulose features in rice. Biotechnology for Biofuels, 2017, 10, 221.	6.2	67
26	Sugar-rich sweet sorghum is distinctively affected by wall polymer features for biomass digestibility and ethanol fermentation in bagasse. Bioresource Technology, 2014, 167, 14-23.	9.6	63
27	Using Amaranthus green proteins as universal biosurfactant and biosorbent for effective enzymatic degradation of diverse lignocellulose residues and efficient multiple trace metals remediation of farming lands. Journal of Hazardous Materials, 2021, 406, 124727.	12.4	56
28	Steam-exploded biomass saccharification is predominately affected by lignocellulose porosity and largely enhanced by Tween-80 in Miscanthus. Bioresource Technology, 2017, 239, 74-81.	9.6	55
29	Modeling of optimal green liquor pretreatment for enhanced biomass saccharification and delignification by distinct alteration of wall polymer features and biomass porosity in Miscanthus. Renewable Energy, 2020, 159, 1128-1138.	8.9	53
30	Three AtCesA6â€like members enhance biomass production by distinctively promoting cell growth in <i>Arabidopsis</i>. Plant Biotechnology Journal, 2018, 16, 976-988.	8.3	49
31	Expression, functional analysis and mutation of a novel neutral zearalenone-degrading enzyme. International Journal of Biological Macromolecules, 2018, 118, 1284-1292.	7.5	49
32	Altered carbon assimilation and cellulose accessibility to maximize bioethanol yield under low-cost biomass processing in corn brittle stalk. Green Chemistry, 2019, 21, 4388-4399.	9.0	49
33	Distinct mechanisms of enzymatic saccharification and bioethanol conversion enhancement by three surfactants under steam explosion and mild chemical pretreatments in bioenergy Miscanthus. Industrial Crops and Products, 2020, 153, 112559.	5.2	47
34	Distinct polymer extraction and cellulose DP reduction for complete cellulose hydrolysis under mild chemical pretreatments in sugarcane. Carbohydrate Polymers, 2018, 202, 434-443.	10.2	45
35	Combined mild chemical pretreatments for complete cadmium release and cellulosic ethanol co-production distinctive in wheat mutant straw. Green Chemistry, 2019, 21, 3693-3700.	9.0	45
36	Ammonium oxalate-extractable uronic acids positively affect biomass enzymatic digestibility by reducing lignocellulose crystallinity in Miscanthus. Bioresource Technology, 2015, 196, 391-398.	9.6	44

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37	Cellulose Synthase Mutants Distinctively Affect Cell Growth and Cell Wall Integrity for Plant Biomass Production in Arabidopsis. Plant and Cell Physiology, 2018, 59, 1144-1157.	3.1	44
38	G-lignin and hemicellulosic monosaccharides distinctively affect biomass digestibility in rapeseed. Bioresource Technology, 2016, 203, 325-333.	9.6	43
39	Biomass Enzymatic Saccharification Is Determined by the Non-KOH-Extractable Wall Polymer Features That Predominately Affect Cellulose Crystallinity in Corn. PLoS ONE, 2014, 9, e108449.	2.5	38
40	Miscanthus accessions distinctively accumulate cadmium for largely enhanced biomass enzymatic saccharification by increasing hemicellulose and pectin and reducing cellulose CrI and DP. Bioresource Technology, 2018, 263, 67-74.	9.6	38
41	A near infrared spectroscopic assay for stalk soluble sugars, bagasse enzymatic saccharification and wall polymers in sweet sorghum. Bioresource Technology, 2015, 177, 118-124.	9.6	33
42	Mechanism of lignocellulose modification and enzyme disadsorption for complete biomass saccharification to maximize bioethanol yield in rapeseed stalks. Sustainable Energy and Fuels, 2020, 4, 607-618.	4.9	33
43	Modified lignocellulose and rich starch for complete saccharification to maximize bioethanol in distinct polyploidy potato straw. Carbohydrate Polymers, 2021, 265, 118070.	10.2	31
44	A novel rice fragile culm 24 mutant encodes a UDP-glucose epimerase that affects cell wall properties and photosynthesis. Journal of Experimental Botany, 2020, 71, 2956-2969.	4.8	30
45	A precise and consistent assay for major wall polymer features that distinctively determine biomass saccharification in transgenic rice by near-infrared spectroscopy. Biotechnology for Biofuels, 2017, 10, 294.	6.2	29
46	Brassinosteroid overproduction improves lignocellulose quantity and quality to maximize bioethanol yield under green-like biomass process in transgenic poplar. Biotechnology for Biofuels, 2020, 13, 9.	6.2	28
47	An integrated genomic and metabolomic framework for cell wall biology in rice. BMC Genomics, 2014, 15, 596.	2.8	26
48	Distinct biochemical activities and heat shock responses of two UDP-glucose sterol glucosyltransferases in cotton. Plant Science, 2014, 219-220, 1-8.	3.6	26
49	A mechanism for efficient cadmium phytoremediation and high bioethanol production by combined mild chemical pretreatments with desirable rapeseed stalks. Science of the Total Environment, 2020, 708, 135096.	8.0	25
50	AtCSLD3 and GhCSLD3 mediate root growth and cell elongation downstream of the ethylene response pathway in Arabidopsis. Journal of Experimental Botany, 2018, 69, 1065-1080.	4.8	22
51	Cotton CSLD3 restores cell elongation and cell wall integrity mainly by enhancing primary cellulose production in the Arabidopsis cesa6 mutant. Plant Molecular Biology, 2019, 101, 389-401.	3.9	21
52	Distinctively altered lignin biosynthesis by siteâ€modification of <i>OsCAD2</i> for enhanced biomass saccharification in rice. GCB Bioenergy, 2021, 13, 305-319.	5.6	21
53	Genetic loci simultaneously controlling lignin monomers and biomass digestibility of rice straw. Scientific Reports, 2018, 8, 3636.	3.3	17
54	Double integrating XYL2 into engineered Saccharomyces cerevisiae strains for consistently enhanced bioethanol production by effective xylose and hexose co-consumption of steam-exploded lignocellulose in bioenergy crops. Renewable Energy, 2022, 186, 341-349.	8.9	16

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55	Integrating mild chemical pretreatments with endogenous protein supplement for complete biomass saccharification to maximize bioethanol production by enhancing cellulases adsorption in novel bioenergy Amaranthus. Industrial Crops and Products, 2022, 177, 114471.	5.2	15
56	Insights into pectin dominated enhancements for elimination of toxic Cd and dye coupled with ethanol production in desirable lignocelluloses. Carbohydrate Polymers, 2022, 286, 119298.	10.2	15
57	Down-regulation of OsMYB103L distinctively alters beta-1,4-glucan polymerization and cellulose microfibers assembly for enhanced biomass enzymatic saccharification in rice. Biotechnology for Biofuels, 2021, 14, 245.	6.2	14
58	Optimizing two green-like biomass pretreatments for maximum bioethanol production using banana pseudostem by effectively enhancing cellulose depolymerization and accessibility. Sustainable Energy and Fuels, 2021, 5, 3467-3478.	4.9	12
59	Ecologically adaptable <i>Populus simonii</i> is specific for recalcitranceâ€reduced lignocellulose and largely enhanced enzymatic saccharification among woody plants. GCB Bioenergy, 2021, 13, 348-360.	5.6	11
60	Integrated genetic and chemical modification with rice straw for maximum bioethanol production. Industrial Crops and Products, 2021, 173, 114133.	5.2	10
61	Integrated NIRS and QTL assays reveal minor mannose and galactose as contrast lignocellulose factors for biomass enzymatic saccharification in rice. Biotechnology for Biofuels, 2021, 14, 144.	6.2	8
62	Proteomic profiling of cellulase-aid-extracted membrane proteins for functional identification of cellulose synthase complexes and their potential associated- components in cotton fibers. Scientific Reports, 2016, 6, 26356.	3.3	7
63	Diverse Banana Pseudostems and Rachis Are Distinctive for Edible Carbohydrates and Lignocellulose Saccharification towards High Bioethanol Production under Chemical and Liquid Hot Water Pretreatments. Molecules, 2021, 26, 3870.	3.8	4
64	Quantum dots are conventionally applicable for wide-profiling of wall polymer distribution and destruction in diverse cells of rice. Talanta, 2020, 208, 120452.	5.5	2