Takashi Watanabe

List of Publications by Year
in descending order

48 papers	1,558 citations	394421 19 h-index	315739 38 g-index
55 all docs	55 docs citations	55 times ranked	2202 citing authors

#	ARTICLE	IF	CITATIONS
1	Microwave-assisted acid pretreatment for enhancing enzymatic saccharification of sugarcane trash. Biomass Conversion and Biorefinery, 2022, 12, 3037-3054.	4.6	22
2	Adsorptive Inhibition of Enveloped Viruses and Nonenveloped Cardioviruses by Antiviral Lignin Produced from Sugarcane Bagasse via Microwave Glycerolysis. Biomacromolecules, 2022, 23, 789-797.	5.4	7
3	Functional and Structural Characterizations of Lytic Polysaccharide Monooxygenase, Which Cooperates Synergistically with Cellulases, from <i>Ceriporiopsis subvermispora</i>. ACS Sustainable Chemistry and Engineering, 2022, 10, 923-934.	6.7	7
4	Identification and characterization of a novel AA9-type lytic polysaccharide monooxygenase from a bagasse metagenome. Applied Microbiology and Biotechnology, 2021, 105, 197-210.	3.6	6
5	Hydrogen production from cellulose catalyzed by an iridium complex in ionic liquid under mild conditions. Catalysis Science and Technology, 2021, 11, 2273-2279.	4.1	5
6	Biodegradation and biodetoxification of batik dye wastewater by laccase from Trametes hirsuta EDN 082 immobilised on light expanded clay aggregate. 3 Biotech, 2021, 11, 247.	2.2	11
7	Identifying the Interunit Linkages Connecting Free Phenolic Terminal Units in Lignin. ChemSusChem, 2021, 14, 2554-2563.	6.8	2
8	Conversion of Beech Wood into Antiviral Ligninâ€“Carbohydrate Complexes by Microwave Acidolysis. ACS Sustainable Chemistry and Engineering, 2021, 9, 9248-9256.	6.7	19
9	Efficient Conversion of Glycerol to Ethanol by an Engineered Saccharomyces cerevisiae Strain. Applied and Environmental Microbiology, 2021, 87, e0026821.	3.1	3
10	Complete NMR assignment and analysis of molecular structural changes of Î²â€“<i>O</i>â€“4 lignin oligomer model compounds in organic media with different water content. Holzforschung, 2021, 75, 379-389.	1.9	4
11	Natural Organic Ultraviolet Absorbers from Lignin. ACS Sustainable Chemistry and Engineering, 2021, 9, 16651-16658.	6.7	12
12	NMR elucidation of nonproductive binding sites of lignin models with carbohydrate-binding module of cellobiohydrolase I. Biotechnology for Biofuels, 2020, 13, 164.	6.2	11
13	Optimization of Xylose Production from Sugarcane Trash by Microwave-Maleic Acid Hydrolysis. Reaktor, 2020, 20, 81-88.	0.3	6
14	Alkyl Î²-D-xyloside synthesis from black liquor xylan using Aureobasidium pullulans CBS 135684 Î²-xylosidases immobilized on spent expanded perlite. Biomass Conversion and Biorefinery, 2020, , 1.	4.6	3
15	Directly Microwaveâ€Accelerated Cleavage of Câˆ’C and Câˆ’O Bonds of Lignin by Copper Oxide and H₂O₂. ChemSusChem, 2020, 13, 4510-4518.	6.8	15
16	Production of Antiviral Substance from Sugarcane Bagasse by Chemical Alteration of its Native Lignin Structure through Microwave Solvolysis. ChemSusChem, 2020, 13, 4519-4527.	6.8	17
17	Development of a Microwave Irradiation Probe for a Cylindrical Applicator. Processes, 2019, 7, 143.	2.8	3
18	NMR Analysis on Molecular Interaction of Lignin with Amino Acid Residues of Carbohydrate-Binding Module from Trichoderma reesei Cel7A. Scientific Reports, 2019, 9, 1977.	3.3	14

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19	Evaluation of ring-5 structures of guaiacyl lignin in <i>Ginkgo biloba</i> L. using solid- and liquid-state ¹³C NMR difference spectroscopy. Holzforschung, 2019, 73, 1083-1092.	1.9	8
20	Bioethanol From Sugarcane Bagasse: Status and Perspectives. , 2019, , 187-212.		18
21	Self-Sufficient Bioethanol Production System Using a Lignin-Derived Adsorbent of Fermentation Inhibitors. ACS Sustainable Chemistry and Engineering, 2018, 6, 3070-3078.	6.7	20
22	Direct evidence for Î± ether linkage between lignin and carbohydrates in wood cell walls. Scientific Reports, 2018, 8, 6538.	3.3	181
23	Antiviral Activity of Phenolic Derivatives in Pyroligneous Acid from Hardwood, Softwood, and Bamboo. ACS Sustainable Chemistry and Engineering, 2018, 6, 119-126.	6.7	51
24	Structure-dependent antiviral activity of catechol derivatives in pyroligneous acid against the encephalomycarditis virus. RSC Advances, 2018, 8, 35888-35896.	3.6	23
25	Catalytic Performance of Food Additives Alum, Flocculating Agent, Al(SO₄)₃, AlCl₃, and Other Lewis Acids in Microwave Solvolysis of Hardwoods and Recalcitrant Softwood for Biorefinery. ACS Omega, 2018, 3, 16271-16280.	3.5	20
26	Robust Surface Plasmon Resonance Chips for Repetitive and Accurate Analysis of Ligninâ€"Peptide Interactions. ACS Omega, 2018, 3, 7483-7493.	3.5	6
27	Binding behaviour of a 12-mer peptide and its tandem dimer to gymnospermae and angiospermae lignins. RSC Advances, 2017, 7, 31338-31341.	3.6	2
28	Direct Production of Vanillin from Wood Particles by Copper Oxideâ€"Peroxide Reaction Promoted by Electric and Magnetic Fields of Microwaves. ACS Sustainable Chemistry and Engineering, 2017, 5, 11551-11557.	6.7	29
29	Transparent Woody Film Made by Dissolution of Finely Divided Japanese Beech in Formic Acid at Room Temperature. ACS Sustainable Chemistry and Engineering, 2017, 5, 11536-11542.	6.7	19
30	Enzymatic Specific Production and Chemical Functionalization of Phenylpropanone Platform Monomers from Lignin. ChemSusChem, 2017, 10, 425-433.	6.8	33
31	Discovery of 12-mer peptides that bind to wood lignin. Scientific Reports, 2016, 6, 21833.	3.3	24
32	Construction of the di(trimethylolpropane) cross linkage and the phenylnaphthalene structure coupled with selective Î²-O-4 bond cleavage for synthesizing lignin-based epoxy resins with a controlled glass transition temperature. Green Chemistry, 2016, 18, 6526-6535.	9.0	37
33	Characterization of the Interunit Bonds of Lignin Oligomers Released by Acid-Catalyzed Selective Solvolysis of <i>Cryptomeria japonica</i> and <i>Eucalyptus globulus</i> Woods via Thioacidolysis and 2D-NMR. Journal of Agricultural and Food Chemistry, 2016, 64, 9152-9160.	5.2	15
34	In situ trapping of enol intermediates with alcohol during acid-catalysed de-polymerisation of lignin in a nonpolar solvent. Green Chemistry, 2015, 17, 2780-2783.	9.0	55
35	Dissolution of wood in Î±-keto acid and aldehydic carboxylic acids and fractionation at room temperature. Green Chemistry, 2014, 16, 3569-3579.	9.0	13
36	Pilot-Plant Scale 12 kW Microwave Irradiation Reactor for Woody Biomass Pretreatment. IEICE Transactions on Electronics, 2014, E97.C, 986-993.	0.6	11

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37	Identification of a Germicidal Compound against Picornavirus in Bamboo Pyroligneous Acid. Journal of Agricultural and Food Chemistry, 2012, 60, 9106-9111.	5.2	38
38	Comparative genomics of <i>Ceriporiopsis subvermispora</i> and <i>Phanerochaete chrysosporium</i> provide insight into selective ligninolysis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5458-5463.	7.1	259
39	A Comparative Study of Matrixâ€•and Nanoâ€assisted Laser Desorption/Ionisation Timeâ€ofâ€Flight Mass Spectrometry of Isolated and Synthetic Lignin. Phytochemical Analysis, 2012, 23, 248-253.	2.4	30
40	Microwave-assisted pretreatment of woody biomass with ammonium molybdate activated by H2O2. Bioresource Technology, 2011, 102, 3941-3945.	9.6	57
41	Pretreatment of Japanese cedar wood by white rot fungi and ethanolysis for bioethanol production. Biomass and Bioenergy, 2011, 35, 320-324.	5.7	46
42	Microwave-assisted pretreatment of recalcitrant softwood in aqueous glycerol. Bioresource Technology, 2010, 101, 9355-9360.	9.6	113
43	Enzymatic saccharification and ethanol production of Acacia mangium and Paraserianthes falcataria wood, and Elaeis guineensis trunk. Journal of Wood Science, 2009, 55, 381-386.	1.9	21
44	Association Between Lignin and Carbohydrates in Wood and Other Plant Tissues. Springer Series in Wood Science, 2003, , .	0.8	72
45	Production and chemiluminescent free radical reactions of glyoxal in lipid peroxidation of linoleic acid by the ligninolytic enzyme, manganese peroxidase. FEBS Journal, 2001, 268, 6114-6122.	0.2	42
46	Synthesis of dehydrogenation polymerâ€"polyose complexes by peroxidase. Phytochemistry, 1992, 31, 1185-1190.	2.9	21
47	Binding-site analysis of the ether linkages between lignin and hemicelluloses in lignin-carbohydrate complexes by DDQ-oxidation.. Agricultural and Biological Chemistry, 1989, 53, 2233-2252.	0.3	64
48	Evidence for an ester linkage between lignin and glucuronic acid in lignin-carbohydrate complexes by DDQ-oxidation.. Agricultural and Biological Chemistry, 1988, 52, 2953-2955.	0.3	59