

# Takashi Watanabe

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7286101/publications.pdf>

Version: 2024-02-01

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	Comparative genomics of <i>Ceriporiopsis subvermispora</i> and <i>Phanerochaete chrysosporium</i> provide insight into selective ligninolysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 5458-5463.	7.1	259
2	Direct evidence for ð ether linkage between lignin and carbohydrates in wood cell walls. <i>Scientific Reports</i> , 2018, 8, 6538.	3.3	181
3	Microwave-assisted pretreatment of recalcitrant softwood in aqueous glycerol. <i>Bioresource Technology</i> , 2010, 101, 9355-9360.	9.6	113
4	Association Between Lignin and Carbohydrates in Wood and Other Plant Tissues. <i>Springer Series in Wood Science</i> , 2003, , .	0.8	72
5	Binding-site analysis of the ether linkages between lignin and hemicelluloses in lignin-carbohydrate complexes by DDQ-oxidation.. <i>Agricultural and Biological Chemistry</i> , 1989, 53, 2233-2252.	0.3	64
6	Evidence for an ester linkage between lignin and glucuronic acid in lignin-carbohydrate complexes by DDQ-oxidation.. <i>Agricultural and Biological Chemistry</i> , 1988, 52, 2953-2955.	0.3	59
7	Microwave-assisted pretreatment of woody biomass with ammonium molybdate activated by H <sub>2</sub> O <sub>2</sub> . <i>Bioresource Technology</i> , 2011, 102, 3941-3945.	9.6	57
8	In situ trapping of enol intermediates with alcohol during acid-catalysed de-polymerisation of lignin in a nonpolar solvent. <i>Green Chemistry</i> , 2015, 17, 2780-2783.	9.0	55
9	Antiviral Activity of Phenolic Derivatives in Pyrolygneous Acid from Hardwood, Softwood, and Bamboo. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 119-126.	6.7	51
10	Pretreatment of Japanese cedar wood by white rot fungi and ethanolysis for bioethanol production. <i>Biomass and Bioenergy</i> , 2011, 35, 320-324.	5.7	46
11	Production and chemiluminescent free radical reactions of glyoxal in lipid peroxidation of linoleic acid by the ligninolytic enzyme, manganese peroxidase. <i>FEBS Journal</i> , 2001, 268, 6114-6122.	0.2	42
12	Identification of a Germicidal Compound against Picornavirus in Bamboo Pyrolygneous Acid. <i>Journal of Agricultural and Food Chemistry</i> , 2012, 60, 9106-9111.	5.2	38
13	Construction of the di(trimethylolpropane) cross linkage and the phenylanthralene structure coupled with selective I <sup>2</sup> -O-4 bond cleavage for synthesizing lignin-based epoxy resins with a controlled glass transition temperature. <i>Green Chemistry</i> , 2016, 18, 6526-6535.	9.0	37
14	Enzymatic Specific Production and Chemical Functionalization of Phenylpropanone Platform Monomers from Lignin. <i>ChemSusChem</i> , 2017, 10, 425-433.	6.8	33
15	A Comparative Study of Matrix- and Nano-assisted Laser Desorption/Ionisation Time-of-Flight Mass Spectrometry of Isolated and Synthetic Lignin. <i>Phytochemical Analysis</i> , 2012, 23, 248-253.	2.4	30
16	Direct Production of Vanillin from Wood Particles by Copper Oxide- Peroxide Reaction Promoted by Electric and Magnetic Fields of Microwaves. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 11551-11557.	6.7	29
17	Discovery of 12-mer peptides that bind to wood lignin. <i>Scientific Reports</i> , 2016, 6, 21833.	3.3	24
18	Structure-dependent antiviral activity of catechol derivatives in pyrolygneous acid against the encephalomyocarditis virus. <i>RSC Advances</i> , 2018, 8, 35888-35896.	3.6	23

#	ARTICLE	IF	CITATIONS
19	Microwave-assisted acid pretreatment for enhancing enzymatic saccharification of sugarcane trash. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 3037-3054.	4.6	22
20	Synthesis of dehydrogenation polymer-polyose complexes by peroxidase. <i>Phytochemistry</i> , 1992, 31, 1185-1190.	2.9	21
21	Enzymatic saccharification and ethanol production of <i>Acacia mangium</i> and <i>Paraserianthes falcataria</i> wood, and <i>Elaeis guineensis</i> trunk. <i>Journal of Wood Science</i> , 2009, 55, 381-386.	1.9	21
22	Self-Sufficient Bioethanol Production System Using a Lignin-Derived Adsorbent of Fermentation Inhibitors. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 3070-3078.	6.7	20
23	Catalytic Performance of Food Additives Alum, Flocculating Agent, $Al(SO_4)_3$ , $AlCl_3$ , and Other Lewis Acids in Microwave Solvolysis of Hardwoods and Recalcitrant Softwood for Biorefinery. <i>ACS Omega</i> , 2018, 3, 16271-16280.	3.5	20
24	Transparent Woody Film Made by Dissolution of Finely Divided Japanese Beech in Formic Acid at Room Temperature. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 11536-11542.	6.7	19
25	Conversion of Beech Wood into Antiviral Lignin-Carbohydrate Complexes by Microwave Acidolysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 9248-9256.	6.7	19
26	Bioethanol From Sugarcane Bagasse: Status and Perspectives. , 2019, , 187-212.		18
27	Production of Antiviral Substance from Sugarcane Bagasse by Chemical Alteration of its Native Lignin Structure through Microwave Solvolysis. <i>ChemSusChem</i> , 2020, 13, 4519-4527.	6.8	17
28	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. <i>Journal of Agricultural and Food Chemistry</i> , 2016, 64, 9152-9160.	5.2	15
29	Directly Microwave-Accelerated Cleavage of C-C and C-O Bonds of Lignin by Copper Oxide and $H_2O_2$ . <i>ChemSusChem</i> , 2020, 13, 4510-4518.	6.8	15
30	NMR Analysis on Molecular Interaction of Lignin with Amino Acid Residues of Carbohydrate-Binding Module from <i>Trichoderma reesei</i> Cel7A. <i>Scientific Reports</i> , 2019, 9, 1977.	3.3	14
31	Dissolution of wood in $\alpha$ -keto acid and aldehydic carboxylic acids and fractionation at room temperature. <i>Green Chemistry</i> , 2014, 16, 3569-3579.	9.0	13
32	Natural Organic Ultraviolet Absorbers from Lignin. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 16651-16658.	6.7	12
33	NMR elucidation of nonproductive binding sites of lignin models with carbohydrate-binding module of cellobiohydrolase I. <i>Biotechnology for Biofuels</i> , 2020, 13, 164.	6.2	11
34	Biodegradation and biodetoxification of batik dye wastewater by laccase from <i>Trametes hirsuta</i> EDN 082 immobilised on light expanded clay aggregate. <i>3 Biotech</i> , 2021, 11, 247.	2.2	11
35	Pilot-Plant Scale 12 kW Microwave Irradiation Reactor for Woody Biomass Pretreatment. <i>IEICE Transactions on Electronics</i> , 2014, E97.C, 986-993.	0.6	11
36	Evaluation of ring-5 structures of guaiacyl lignin in <i>Ginkgo biloba</i> L. using solid- and liquid-state $^{13}C$ NMR difference spectroscopy. <i>Holzforschung</i> , 2019, 73, 1083-1092.	1.9	8

#	ARTICLE	IF	CITATIONS
37	Adsorptive Inhibition of Enveloped Viruses and Nonenveloped Cardioviruses by Antiviral Lignin Produced from Sugarcane Bagasse via Microwave Glycerolysis. <i>Biomacromolecules</i> , 2022, 23, 789-797.	5.4	7
38	Functional and Structural Characterizations of Lytic Polysaccharide Monooxygenase, Which Cooperates Synergistically with Cellulases, from <i>Ceriporiopsis subvermispora</i> . <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 923-934.	6.7	7
39	Robust Surface Plasmon Resonance Chips for Repetitive and Accurate Analysis of Lignin-Peptide Interactions. <i>ACS Omega</i> , 2018, 3, 7483-7493.	3.5	6
40	Optimization of Xylose Production from Sugarcane Trash by Microwave-Maleic Acid Hydrolysis. <i>Reaktor</i> , 2020, 20, 81-88.	0.3	6
41	Identification and characterization of a novel AA9-type lytic polysaccharide monooxygenase from a bagasse metagenome. <i>Applied Microbiology and Biotechnology</i> , 2021, 105, 197-210.	3.6	6
42	Hydrogen production from cellulose catalyzed by an iridium complex in ionic liquid under mild conditions. <i>Catalysis Science and Technology</i> , 2021, 11, 2273-2279.	4.1	5
43	Complete NMR assignment and analysis of molecular structural changes of <sup>13</sup> C-lignin oligomer model compounds in organic media with different water content. <i>Holzforschung</i> , 2021, 75, 379-389.	1.9	4
44	Development of a Microwave Irradiation Probe for a Cylindrical Applicator. <i>Processes</i> , 2019, 7, 143.	2.8	3
45	Alkyl <sup>13</sup> C-D-xyloside synthesis from black liquor xylan using <i>Aureobasidium pullulans</i> CBS 135684 <sup>13</sup> C-xylosidases immobilized on spent expanded perlite. <i>Biomass Conversion and Biorefinery</i> , 2020, , 1.	4.6	3
46	Efficient Conversion of Glycerol to Ethanol by an Engineered <i>Saccharomyces cerevisiae</i> Strain. <i>Applied and Environmental Microbiology</i> , 2021, 87, e0026821.	3.1	3
47	Binding behaviour of a 12-mer peptide and its tandem dimer to gymnospermae and angiospermae lignins. <i>RSC Advances</i> , 2017, 7, 31338-31341.	3.6	2
48	Identifying the Interunit Linkages Connecting Free Phenolic Terminal Units in Lignin. <i>ChemSusChem</i> , 2021, 14, 2554-2563.	6.8	2