Clemens M Altaner

List of Publications by Year
in descending order

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44 papers	1,828 citations	430874 18 h-index	265206 42 g-index
45 all docs	45 docs citations	45 times ranked	2179 citing authors

#	Article	IF	Citations
1	Nanostructure of cellulose microfibrils in spruce wood. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E1195-203.	7.1	597
2	Structure of Cellulose Microfibrils in Primary Cell Walls from Collenchyma Â Â Â. Plant Physiology, 2012, 161, 465-476.	4.8	268
3	Microfibril diameter in celery collenchyma cellulose: X-ray scattering and NMR evidence. Cellulose, 2007, 14, 235-246.	4.9	121
4	How Cellulose Stretches: Synergism between Covalent and Hydrogen Bonding. Biomacromolecules, 2014, 15, 791-798.	5.4	103
5	Function and three-dimensional structure of intervessel pit membranes in angiosperms: a review. IAWA Journal, 2019, 40, 673-702.	2.7	66
6	Structure and spacing of cellulose microfibrils in woody cell walls of dicots. Cellulose, 2014, 21, 3887-3895.	4.9	45
7	Regioselective deacetylation of cellulose acetates by acetyl xylan esterases of different CE-families. Journal of Biotechnology, 2003, 105, 95-104.	3.8	43
8	Distribution of (1->4)-Â-galactans, arabinogalactan proteins, xylans and (1->3)-Â-glucans in tracheid cell walls of softwoods. Tree Physiology, 2010, 30, 782-793.	3.1	42
9	Cellulose microfibril angles and cell-wall polymers in different wood types of Pinus radiata. Cellulose, 2012, 19, 1385-1404.	4.9	40
10	Detection of Î²-1-4-galactan in compression wood of Sitka spruce [Picea sitchensis (Bong.) CarriÃ¨re] by immunofluorescence. Holzforschung, 2007, 61, 311-316.	1.9	38
11	Wood shrinkage: influence of anatomy, cell wall architecture, chemical composition and cambial age. European Journal of Wood and Wood Products, 2010, 68, 87-94.	2.9	36
12	Diffraction evidence for the structure of cellulose microfibrils in bamboo, a model for grass and cereal celluloses. BMC Plant Biology, 2015, 15, 153.	3.6	35
13	Determination of the substituent distribution along cellulose acetate chains as revealed by enzymatic and chemical methods. Carbohydrate Polymers, 2003, 54, 353-362.	10.2	26
14	Measuring compression wood severity in spruce. Wood Science and Technology, 2009, 43, 279-290.	3.2	25
15	Genetic variation in heartwood properties and growth traits of Eucalyptus bosistoana. European Journal of Forest Research, 2018, 137, 565-572.	2.5	24
16	Specificity of an Aspergillus Niger Esterase Deacetylating Cellulose Acetate. Cellulose, 2003, 10, 85-95.	4.9	22
17	Spatial relationships between polymers in Sitka spruce: Proton spin-diffusion studies. Holzforschung, 2006, 60, 665-673.	1.9	22
18	Molecular deformation of wood and cellulose studied by near infrared spectroscopy. Carbohydrate Polymers, 2018, 197, 1-8.	10.2	19

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19	Effects of variable selection and processing of NIR and ATR-IR spectra on the prediction of extractive content in Eucalyptus bosistoana heartwood. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 213, 111-117.	3.9	19
20	4.3 Degradation and modification of cellulose acetates by biological systems. Macromolecular Symposia, 2004, 208, 239-254.	0.7	18
21	Predicting extractives content of Eucalyptus bosistoana F. Muell. Heartwood from stem cores by near infrared spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 198, 78-87.	3.9	17
22	Cellulose Iî² investigated by IR-spectroscopy at low temperatures. Cellulose, 2014, 21, 3171-3179.	4.9	16
23	Distribution of extractives in Sitka spruce (Picea sitchensis) grown in the northern UK. European Journal of Wood and Wood Products, 2013, 71, 697-704.	2.9	15
24	Nanostructural deformation of high-stiffness spruce wood under tension. Scientific Reports, 2021, 11, 453.	3.3	14
25	In situ detection of cell wall polysaccharides in sitka spruce (Picea sitchensis (Bong.) CarriÃ¨re) wood tissue. BioResources, 2007, 2, 284-295.	1.0	13
26	Title is missing!. Cellulose, 2001, 8, 259-265.	4.9	12
27	Cell organelles and fluorescence of parenchyma cells in Eucalyptus bosistoana sapwood and heartwood investigated by microscopy. New Zealand Journal of Forestry Science, 2018, 48, .	0.8	11
28	An approach to quantify natural durability of Eucalyptus bosistoana by near infrared spectroscopy for genetic selection. Industrial Crops and Products, 2020, 154, 112676.	5.2	11
29	An unusual form of reaction wood in Koromiko [Hebe salicifolia G. Forst. (Pennell)], a southern hemisphere angiosperm. Planta, 2012, 235, 289-297.	3.2	10
30	Pyrolysis gas-chromatography mass-spectrometry (Py-GC/MS) to identify compression wood in <i>Pinus radiata</i> saplings. Holzforschung, 2014, 68, 505-517.	1.9	10
31	Properties of rotary peeled veneer and laminated veneer lumber (LVL) from New Zealand grown Eucalyptus globoidea. New Zealand Journal of Forestry Science, 2018, 48, .	0.8	10
32	Thickness-dependent stiffness of wood: potential mechanisms and implications. Holzforschung, 2020, 74, 1079-1087.	1.9	10
33	Physiological changes during heartwood formation in young Eucalyptus bosistoana trees. IAWA Journal, 2018, 39, 382-394.	2.7	9
34	Title is missing!. Cellulose, 2003, 10, 391-395.	4.9	8
35	Properties of young Araucaria heterophylla (Norfolk Island pine) reaction and normal wood. Holzforschung, 2014, 68, 817-821.	1.9	8
36	Molecular xylem cell wall structure of an inclined Cycas micronesica stem, a tropical gymnosperm. IAWA Journal, 2010, 31, 3-11.	2.7	7

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37	Evaluation of near infrared spectroscopy to non-destructively measure growthÂstrain in trees. Cellulose, 2019, 26, 7663-7673.	4.9	7
38	Quantification of the chemical composition of lignocellulosics by solution 1H NMR spectroscopy of acid hydrolysates. Cellulose, 2016, 23, 1003-1010.	4.9	6
39	Calibration of near infrared spectroscopy (NIRS) data of three <i>Eucalyptus</i> species with extractive contents determined by ASE extraction for rapid identification of species and high extractive contents. Holzforschung, 2019, 73, 537-545.	1.9	6
40	Effects of mechanical stretching, desorption and isotope exchange on deuterated eucalypt wood studied by near infrared spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 211, 254-259.	3.9	5
41	Variation and genetic parameters of axial resin canal features in clones and families of Pinus radiata. New Forests, 2021, 52, 167-176.	1.7	5
42	Endoglucanase Degradation and Enzyme-Aided Characterization of Cellulose Acetates. Macromolecular Symposia, 2005, 223, 137-150.	0.7	4
43	Measuring Molecular Strain in Rewetted and Never-Dried Eucalypt Wood with Raman Spectroscopy. Biomacromolecules, 2019, 20, 3191-3199.	5.4	2
44	Temperature-Dependent Blue Shifting of Oâ€"H Stretching Frequencies in Crystalline Cellulose Explained. Journal of Physical Chemistry B, 2020, 124, 4924-4930.	2.6	2