Michael C Jarvis

List of Publications by Year
in descending order

75 papers	5,511 citations	108046 37 h-index	90395 73 g-index
77 all docs	77 docs citations	77 times ranked	5939 citing authors

#	Article	IF	Citations
1	Nanostructural deformation of high-stiffness spruce wood under tension. Scientific Reports, 2021, 11, 453.	1.6	14
2	Drying of virus-containing particles: modelling effects of droplet origin and composition. Journal of Environmental Health Science & Engineering, 2021, 19, 1987-1996.	1.4	9
3	Aerosol Transmission of SARS-CoV-2: Physical Principles and Implications. Frontiers in Public Health, 2020, 8, 590041.	1.3	111
4	Hemicellulose binding and the spacing of cellulose microfibrils in spruce wood. Cellulose, 2020, 27, 4249-4254.	2.4	26
5	Chemical and Mechanical Differences between Historic and Modern Scots Pine Wood. Heritage, 2020, 3, 116-127.	0.9	3
6	Thickness-dependent stiffness of wood: potential mechanisms and implications. Holzforschung, 2020, 74, 1079-1087.	0.9	10
7	Structure of native cellulose microfibrils, the starting point for nanocellulose manufacture. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170045.	1.6	94
8	FTIR Measurement of Cellulose Microfibril Angle in Historic Scots Pine Wood and Its Use to Detect Fungal Decay. Studies in Conservation, 2018, 63, 375-382.	0.6	1
9	Catalytic depolymerisation of isolated lignin to fine chemicals: part 2 â€“ process optimisation. Catalysis Science and Technology, 2016, 6, 4142-4150.	2.1	44
10	Variation of radial wood properties from genetically improved Sitka spruce growing in the UK. Forestry, 2016, 89, 109-116.	1.2	16
11	Hydrogen-Bonding Network and OH Stretch Vibration of Cellulose: Comparison of Computational Modeling with Polarized IR and SFG Spectra. Journal of Physical Chemistry B, 2015, 119, 15138-15149.	1.2	152
12	Diffraction evidence for the structure of cellulose microfibrils in bamboo, a model for grass and cereal celluloses. BMC Plant Biology, 2015, 15, 153.	1.6	35
13	Catalytic depolymerisation of isolated lignins to fine chemicals using a Pt/alumina catalyst: part 1â€”impact of the lignin structure. Green Chemistry, 2015, 17, 1235-1242.	4.6	173
14	Structure and spacing of cellulose microfibrils in woody cell walls of dicots. Cellulose, 2014, 21, 3887-3895.	2.4	45
15	Organosolv pretreatment of Sitka spruce wood: Conversion of hemicelluloses to ethyl glycosides. Bioresource Technology, 2014, 151, 441-444.	4.8	43
16	How Cellulose Stretches: Synergism between Covalent and Hydrogen Bonding. Biomacromolecules, 2014, 15, 791-798.	2.6	103
17	Isolation of high quality lignin as a by-product from ammonia percolation pretreatment of poplar wood. Bioresource Technology, 2014, 162, 236-242.	4.8	35
18	Unravelling the nanostructure of cellulose microfibrils. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C1321-C1321.	0.0	0

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19	Distribution of extractives in Sitka spruce (Picea sitchensis) grown in the northern UK. European Journal of Wood and Wood Products, 2013, 71, 697-704.	1.3	15
20	Cellulose Biosynthesis: Counting the Chains. Plant Physiology, 2013, 163, 1485-1486.	2.3	62
21	Comparative structure and biomechanics of plant primary and secondary cell walls. Frontiers in Plant Science, 2012, 3, 204.	1.7	317
22	Structure of Cellulose Microfibrils in Primary Cell Walls from Collenchyma Â Â Â. Plant Physiology, 2012, 161, 465-476.	2.3	268
23	Plant cell walls: Supramolecular assemblies. Food Hydrocolloids, 2011, 25, 257-262.	5.6	91
24	Bermuda's 'Domesday Book': Richard Norwood's surveys and the development of the Somers Islands, 1616â€“63. Post-Medieval Archaeology, 2011, 45, 54-73.	0.2	4
25	Nanostructure of cellulose microfibrils in spruce wood. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E1195-203.	3.3	597
26	Wood shrinkage: influence of anatomy, cell wall architecture, chemical composition and cambial age. European Journal of Wood and Wood Products, 2010, 68, 87-94.	1.3	36
27	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.	1.4	42
28	Molecular xylem cell wall structure of an inclined Cycas micronesica stem, a tropical gymnosperm. IAWA Journal, 2010, 31, 3-11.	2.7	7
29	Plant cell walls: supramolecular assembly, signalling and stress. Structural Chemistry, 2009, 20, 245-253.	1.0	24
30	Measuring compression wood severity in spruce. Wood Science and Technology, 2009, 43, 279-290.	1.4	25
31	Detection of Î²-1-4-galactan in compression wood of Sitka spruce [Picea sitchensis (Bong.) CarriÃ¨re] by immunofluorescence. Holzforschung, 2007, 61, 311-316.	0.9	38
32	Microfibril diameter in celery collenchyma cellulose: X-ray scattering and NMR evidence. Cellulose, 2007, 14, 235-246.	2.4	121
33	Hydration effects on spacing of primary-wall cellulose microfibrils: a small angle X-ray scattering study. Cellulose, 2007, 14, 401-408.	2.4	39
34	Vibrational Spectroscopy of Biopolymers Under Mechanical Stress: Processing Cellulose Spectra Using Bandshift Difference Integrals. Biomacromolecules, 2006, 7, 2688-2691.	2.6	20
35	Cell-cell adhesion in fresh sugar-beet root parenchyma requires both pectin esters and calcium cross-links. Physiologia Plantarum, 2006, 126, 243-256.	2.6	49
36	Cell-wall structure and anisotropy in procuste, a cellulose synthase mutant of Arabidopsis thaliana. Planta, 2006, 224, 438-448.	1.6	33

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37	Spatial relationships between polymers in Sitka spruce: Proton spin-diffusion studies. Holzforschung, 2006, 60, 665-673.	0.9	22
38	Conformation and mobility of the arabinan and galactan side-chains of pectin. Phytochemistry, 2005, 66, 1817-1824.	1.4	68
39	Structural Details of Crystalline Cellulose from Higher Plants. Biomacromolecules, 2004, 5, 1333-1339.	2.6	179
40	Polarized Vibrational Spectroscopy of Fiber Polymers:Â Hydrogen Bonding in Cellulose II. Biomacromolecules, 2003, 4, 1589-1595.	2.6	27
41	Pectic Methyl and Nonmethyl Esters in Potato Cell Walls. Journal of Agricultural and Food Chemistry, 2002, 50, 342-346.	2.4	22
42	Conformational features of crystal-surface cellulose from higher plants. Plant Journal, 2002, 30, 721-731.	2.8	156
43	Structure of cellulose-deficient secondary cell walls from the irx3 mutant of Arabidopsis thaliana. Phytochemistry, 2002, 61, 7-14.	1.4	51
44	Electron Energy Loss Spectroscopy Methodology for Boron Localisation in Plant Cell Walls. , 2002, , 11-19.		2
45	Developmental regulation of pectic epitopes during potato tuberisation. Planta, 2001, 213, 869-880.	1.6	95
46	Altered Middle Lamella Homogalacturonan and Disrupted Deposition of (1â†’5)-Î±-l-Arabinan in the Pericarp ofCnr, a Ripening Mutant of Tomato. Plant Physiology, 2001, 126, 210-221.	2.3	127
47	Interconversion of the IÎ± and IÎ² crystalline forms of cellulose by bending. Carbohydrate Research, 2000, 325, 150-154.	1.1	40
48	Turgor pressure, membrane tension and the control of exocytosis in higher plants. Plant, Cell and Environment, 2000, 23, 999-1003.	2.8	30
49	Macromolecular biophysics of the plant cell wall: Concepts and methodology. Plant Physiology and Biochemistry, 2000, 38, 1-13.	2.8	112
50	Molecular and Genetic Characterization of a Novel Pleiotropic Tomato-Ripening Mutant1. Plant Physiology, 1999, 120, 383-390.	2.3	202
51	A Cross-Polarization, Magic-Angle-Spinning,13C-Nuclear-Magnetic-Resonance Study of Polysaccharides in Sugar Beet Cell Walls1. Plant Physiology, 1999, 119, 1315-1322.	2.3	85
52	Electron-energy-loss spectroscopic imaging of calcium and nitrogen in the cell walls of apple fruits. Planta, 1999, 208, 438-443.	1.6	32
53	Fine structure in cellulose microfibrils: NMR evidence from onion and quince. Plant Journal, 1998, 16, 183-190.	2.8	124
54	Solid-State13C NMR of Cell Walls in Wheat Bran. Journal of Agricultural and Food Chemistry, 1997, 45, 117-119.	2.4	29

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55	Cross-polarisation kinetics and proton NMR relaxation in polymers of Citrus cell walls. Carbohydrate Research, 1996, 288, 1-14.	1.1	12
56	CP-MAS NMR of highly mobile hydrated biopolymers: Polysaccharides of Allium cell walls. Carbohydrate Research, 1996, 288, 15-23.	1.1	25
57	Chain conformation in concentrated pectic gels: evidence from 13C NMR. Carbohydrate Research, 1995, 275, 131-145.	1.1	103
58	Extraction of phenolic-carbohydrate complexes from graminaceous cell walls. Carbohydrate Research, 1995, 272, 41-53.	1.1	48
59	Solid-state13C NMR study of palm trunk cell walls. Journal of the Science of Food and Agriculture, 1994, 64, 487-491.	1.7	20
60	Relationship of chemical shift to glycosidic conformation in the solid-state13C NMR spectra of (1 â†’) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 259, 311-318.	1.1	58
61	Human Monocytes Respond to Leukotriene B4 with a Transient Increase in Cytosolic Calcium. Cellular Immunology, 1993, 147, 438-445.	1.4	7
62	The 13C-n.m.r. spectrum of (1â†’4)-Î²-d-mannans in intact endosperm tissue of the date (Phoenix dactylifera). Carbohydrate Research, 1990, 197, 276-280.	1.1	21
63	Solid state 13C-n.m.r. spectra of Vigna primary cell walls and their polysaccharide components. Carbohydrate Research, 1990, 201, 327-333.	1.1	33
64	Direct Observation of Cell Wall Structure in Living Plant Tissues by Solid-State ¹³C NMR Spectroscopy. Plant Physiology, 1990, 92, 61-65.	2.3	59
65	In-vitro digestibility of kale (Brassica oleracea) secondary xylem and parenchyma cell walls and their polysaccharide components. Journal of the Science of Food and Agriculture, 1989, 48, 9-14.	1.7	18
66	Lignified and non-lignified cell walls from kale. Plant Science, 1988, 57, 83-90.	1.7	21
67	A Survey of the Pectic Content of Nonlignified Monocot Cell Walls. Plant Physiology, 1988, 88, 309-314.	2.3	127
68	Structure and properties of pectin gels in plant cell walls.. Plant, Cell and Environment, 1984, 7, 153-164.	2.8	392
69	Structure and properties of pectin gels in plant cell walls. Plant, Cell and Environment, 1984, 7, 153-164.	2.8	282
70	Cell wall polysaccharides from onions. Phytochemistry, 1980, 19, 1731-1733.	1.4	53
71	Hydrolysis of plant polysaccharides and GLC analysis of their constituent neutral sugars. Phytochemistry, 1979, 18, 419-422.	1.4	77
72	Separation of macromolecular components of plant cell walls: electrophoretic methods. Phytochemistry, 1977, 16, 849-852.	1.4	20

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73	Aquilinan, an acidic polysaccharide from Pteridium aquilinum. Phytochemistry, 1976, 15, 171-174.	1.4	7
74	Diurnal variations in lipids of bracken fronds. Phytochemistry, 1975, 14, 77-78.	1.4	6
75	Distribution of glycolipids and phospholipids in Pteridium aquilinum. Phytochemistry, 1974, 13, 979-981.	1.4	16