Callum A S Hill

List of Publications by Year
in descending order

36 papers	3,258 citations	236925 25 h-index	377865 34 g-index
37 all docs	37 docs citations	37 times ranked	2363 citing authors

#	Article	IF	Citations
1	A critical discussion of the physics of woodâ€“water interactions. Wood Science and Technology, 2013, 47, 141-161.	3.2	414
2	The water vapor sorption behavior of natural fibers. Journal of Applied Polymer Science, 2009, 112, 1524-1537.	2.6	331
3	Surface only modification of bacterial cellulose nanofibres with organic acids. Cellulose, 2011, 18, 595-605.	4.9	177
4	The water vapour sorption properties of Sitka spruce determined using a dynamic vapour sorption apparatus. Wood Science and Technology, 2010, 44, 497-514.	3.2	144
5	Thermal modification of woodâ€”a review: chemical changes and hygroscopicity. Journal of Materials Science, 2021, 56, 6581-6614.	3.7	139
6	The water vapour sorption properties of thermally modified and densified wood. Journal of Materials Science, 2012, 47, 3191-3197.	3.7	120
7	The water vapour sorption behaviour of acetylated birch wood: how acetylation affects the sorption isotherm and accessible hydroxyl content. Journal of Materials Science, 2014, 49, 2362-2371.	3.7	108
8	The dynamic water vapour sorption behaviour of natural fibres and kinetic analysis using the parallel exponential kinetics model. Journal of Materials Science, 2011, 46, 479-489.	3.7	102
9	What is the role of the accessibility of wood hydroxyl groups in controlling moisture content?. Journal of Materials Science, 2013, 48, 6352-6356.	3.7	95
10	A comparison of the environmental impacts of different categories of insulation materials. Energy and Buildings, 2018, 162, 12-20.	6.7	91
11	Dynamic water vapour sorption properties of wood treated with glutaraldehyde. Wood Science and Technology, 2011, 45, 49-61.	3.2	66
12	The water vapour sorption behaviour of three celluloses: analysis using parallel exponential kinetics and interpretation using the Kelvin-Voigt viscoelastic model. Cellulose, 2011, 18, 517-530.	4.9	57
13	Analysis of the water vapour sorption isotherms of thermally modified acacia and sesendok. Wood Material Science and Engineering, 2010, 5, 194-203.	2.3	56
14	Conservation of Waterlogged Woodâ€”Past, Present and Future Perspectives. Forests, 2021, 12, 1193.	2.1	48
15	Accessibility of hydroxyl groups in anhydride modified wood as measured by deuterium exchange and saponification. Holzforschung, 2017, 72, 17-23.	1.9	45
16	Characterization of moisture in acetylated and propionylated radiata pine using low-field nuclear magnetic resonance (LFNMR) relaxometry. Holzforschung, 2018, 72, 225-233.	1.9	42
17	Comparative assessment for biogenic carbon accounting methods in carbon footprint of products: a review study for construction materials based on forest products. IForest, 2017, 10, 815-823.	1.4	41
18	Measuring the thickness swelling and set-recovery of densified and thermally modified Scots pine solid wood. Journal of Materials Science, 2013, 48, 8530-8538.	3.7	38

#	Article	IF	Citations
19	Accessibility of hydroxyl groups in birch kraft pulps quantified by deuterium exchange in D2O vapor. Cellulose, 2014, 21, 1217-1226.	4.9	38
20	The water vapor sorption behavior of a galactomannan cellulose nanocomposite film analyzed using parallel exponential kinetics and the Kelvinâ€“Voigt viscoelastic model. Journal of Applied Polymer Science, 2013, 129, 2352-2359.	2.6	36
21	Why does acetylation protect wood from microbiological attack?. Wood Material Science and Engineering, 2009, 4, 37-45.	2.3	35
22	The toughness of hygrothermally modified wood. Holzforschung, 2015, 69, 851-862.	1.9	35
23	Sorption behaviour of torrefied wood and charcoal determined by dynamic vapour sorption. Journal of Materials Science, 2015, 50, 7673-7680.	3.7	29
24	Polyesterification of wood using sorbitol and citric acid under aqueous conditions. International Wood Products Journal, 2018, 9, 66-73.	1.1	28
25	The dynamic water vapour sorption properties of natural fibres and viscoelastic behaviour of the cell wall: is there a link between sorption kinetics and hysteresis?. Journal of Materials Science, 2011, 46, 3738-3748.	3.7	26
26	Cupping behaviour of surface densified Scots pine wood: the effect of process parameters and correlation with density profile characteristics. Journal of Materials Science, 2013, 48, 6426-6430.	3.7	26
27	Effect of methyltrimethoxysilane impregnation on the cell wall porosity and water vapour sorption of archaeological waterlogged oak. Wood Science and Technology, 2019, 53, 703-726.	3.2	24
28	Water vapor sorption kinetics of wood modified with glutaraldehyde. Journal of Applied Polymer Science, 2010, 117, 1674-1682.	2.6	23
29	Embodied energy data implications for optimal specification of building envelopes. Building Research and Information, 2020, 48, 429-445.	3.9	22
30	Environmental Impact of Wood Modification. Coatings, 2021, 11, 366.	2.6	19
31	Review of the use of solid wood as an external cladding material in the built environment. Journal of Materials Science, 2022, 57, 9031-9076.	3.7	18
32	The water vapour sorption characteristics and kinetics of different wool types. Journal of the Textile Institute, 0, , 1-13.	1.9	9
33	An examination of the potential for the use of the Maillard reaction to modify wood. International Wood Products Journal, 2018, 9, 108-114.	1.1	8
34	Accessibility of hydroxyl groups in furfurylated wood at different weight percent gains and during Rhodonia placenta decay. European Journal of Wood and Wood Products, 2019, 77, 953-955.	2.9	8
35	Water up-take in fuel pellets studied by Dynamic Vapour Sorption (DVS) analysis and its potential role in self-heating during storage. European Journal of Wood and Wood Products, 2019, 77, 5-14.	2.9	5
36	Editorial for the IWPJ special edition for the 8th European Conference on Wood Modification. International Wood Products Journal, 2016, 7, 60-60.	1.1	0