Frederick A Kamke

List of Publications by Year
in descending order

72 papers	1,676 citations	257101 24 h-index	315357 38 g-index
74 all docs	74 docs citations	74 times ranked	1049 citing authors

#	Article	IF	Citations
1	Density profile and morphology of viscoelastic thermal compressed wood. Wood Science and Technology, 2009, 43, 57-68.	1.4	122
2	Analysis of Calcutta bamboo for structural composite materials: physical and mechanical properties. Wood Science and Technology, 2005, 39, 448-459.	1.4	101
3	Phenolâ€“formaldehyde impregnation of densified wood for improved dimensional stability. Wood Science and Technology, 2010, 44, 95-104.	1.4	100
4	The mechanical properties of densified VTC wood relevant for structural composites. European Journal of Wood and Wood Products, 2008, 66, 439-446.	1.3	72
5	Quantitative Analysis of Gross Adhesive Penetration in Wood Using Fluorescence Microscopy. Journal of Adhesion, 1992, 40, 47-61.	1.8	69
6	Cluster theory for water sorption in wood. Wood Science and Technology, 1992, 26, 83.	1.4	69
7	Influence of temperature and steam environment on set recovery of compressive deformation of wood. Wood Science and Technology, 2012, 46, 953-964.	1.4	62
8	Application of dielectric analysis for monitoring the cure process of phenol formaldehyde adhesive. International Journal of Adhesion and Adhesives, 2007, 27, 562-567.	1.4	55
9	Computer simulation of a rotary dryer. Part I: Retention time. AICHE Journal, 1986, 32, 263-268.	1.8	51
10	Comparative analysis of a wood: adhesive bondline. Wood Science and Technology, 2011, 45, 147-158.	1.4	50
11	Compression of wood under saturated steam, superheated steam, and transient conditions at 150Â°C, 160Â°C, and 170Â°C. Wood Science and Technology, 2012, 46, 73-88.	1.4	50
12	DENSIFIED RADIATA PINE FOR STRUCTURAL COMPOSITES. Maderas: Ciencia Y Tecnologia, 2006, 8, 83.	0.7	46
13	Properties of parallel strand lumber from Calcutta bamboo (Dendrocalamus strictus). Wood Science and Technology, 2011, 45, 63-72.	1.4	43
14	Computer simulation of a rotary dryer. Part II: Heat and Mass Transfer. AICHE Journal, 1986, 32, 269-275.	1.8	40
15	Density profile relation to hardness of viscoelastic thermal compressed (VTC) wood composite. Wood Science and Technology, 2011, 45, 693-705.	1.4	39
16	Influence of temperature of thermal treatment on surface densification of spruce. European Journal of Wood and Wood Products, 2017, 75, 113-123.	1.3	39
17	Comparison of the flexural behavior of natural and thermo-hydro-mechanically densified Moso bamboo. European Journal of Wood and Wood Products, 2016, 74, 633-642.	1.3	38
18	Quantitative woodâ€“adhesive penetration with X-ray computed tomography. International Journal of Adhesion and Adhesives, 2015, 61, 71-80.	1.4	35

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19	Transient Moisture Effects in Fibers and Composite Materials. Journal of Composite Materials, 1990, 24, 994-1009.	1.2	32
20	The influence of viscoelastic thermal compression on the chemistry and surface energetics of wood. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 329, 82-86.	2.3	31
21	Properties of compression-densified wood, Part II: surface energy. Journal of Adhesion Science and Technology, 2006, 20, 335-344.	1.4	28
22	X-ray computed tomography of wood-adhesive bondlines: attenuation and phase-contrast effects. Wood Science and Technology, 2015, 49, 1185-1208.	1.4	28
23	X-ray methods to observe and quantify adhesive penetration into wood. Journal of Materials Science, 2019, 54, 705-718.	1.7	28
24	Phenol formaldehyde adhesives formulated for advanced X-ray imaging in wood-composite bondlines. Journal of Materials Science, 2014, 49, 580-591.	1.7	27
25	Analysis of Calcutta bamboo for structural composite materials: surface characteristics. Wood Science and Technology, 2003, 37, 233-240.	1.4	24
26	Microstructure of viscoelastic thermal compressed (VTC) wood using computed microtomography. Wood Science and Technology, 2013, 47, 121-139.	1.4	24
27	Apparatus for viscoelastic thermal compression of wood. European Journal of Wood and Wood Products, 2011, 69, 483-487.	1.3	22
28	WBCSim: A Prototype Problem Solving Environment for Wood-Based Composites Simulations. Engineering With Computers, 1999, 15, 198-210.	3.5	19
29	The influence of thermal-hydro-mechanical processing on chemical characterization of Tsuga heterophylla. Wood Science and Technology, 2014, 48, 373-392.	1.4	17
30	A new quantitative method for evaluation of adhesive penetration pattern in particulate wood-based composites: elemental counting method. Wood Science and Technology, 2014, 48, 703-712.	1.4	17
31	Influence of the thermo-hydro-mechanical treatments of wood on the performance against wood-degrading fungi. Wood Science and Technology, 2013, 47, 977-992.	1.4	16
32	Properties of compression densified wood. Part I: bond performance. Journal of Adhesion Science and Technology, 2005, 19, 1249-1261.	1.4	15
33	Simultaneous drying and densification of silver birch (Betula pendula L.) veneers: analysis of morphology, thickness swelling, and density profile. Wood Science and Technology, 2014, 48, 325-336.	1.4	14
34	Comparison of alkali treatments on selected chemical, physical and mechanical properties of grape cane fibers. Cellulose, 2020, 27, 7371-7387.	2.4	14
35	Analysis of Adhesive Penetration into Wood using Nano-X-ray Computed Tomography. Wood and Fiber Science, 2018, 50, 66-76.	0.2	14
36	Fungal decay of viscoelastic thermal compressed (VTC) wood. European Journal of Wood and Wood Products, 2011, 69, 325-328.	1.3	13

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37	Methodology for comparing wood adhesive bond load transfer using digital volume correlation. Wood Science and Technology, 2018, 52, 1569-1587.	1.4	13
38	Understanding the effect of weathering on adhesive bonds for wood composites using digital image correlation (DIC). Holzforschung, 2019, 73, 155-164.	0.9	13
39	Fundamentals of flakeboard manufacture: wood-moisture relationships. Wood Science and Technology, 1991, 25, 57.	1.4	12
40	Evaluation of a Wood-Strand Molded Core Sandwich Panel. Journal of Materials in Civil Engineering, 2016, 28, .	1.3	12
41	Viscoelastic properties of thermo-hydro-mechanically treated beech (Fagus sylvatica L.) determined using dynamic mechanical analysis. European Journal of Wood and Wood Products, 2021, 79, 263-271.	1.3	12
42	Bonding performance and mechanism of thermal-hydro-mechanical modified veneer. Wood Science and Technology, 2018, 52, 343-363.	1.4	10
43	WBCSim: an environment for modeling wood-based composites manufacture. Engineering With Computers, 2006, 21, 259-271.	3.5	9
44	Influence of specimen size during accelerated weathering of wood-based structural panels. Wood Material Science and Engineering, 2020, 15, 17-29.	1.1	9
45	An experiment management component for the WBCSim problem solving environment. Advances in Engineering Software, 2004, 35, 115-123.	1.8	8
46	Integrated drying and thermo-hydro-mechanical modification of western hemlock veneer. European Journal of Wood and Wood Products, 2013, 71, 173-181.	1.3	8
47	The wettability and bonding performance of densified VTC beech (Fagus sylvatica L.) and Norway spruce (Picea abies (L.) Karst.) bonded with phenolâ€“formaldehyde adhesive and liquefied wood. European Journal of Wood and Wood Products, 2013, 71, 371-379.	1.3	8
48	Bonding of THM modified Moso bamboo (Phyllostachys pubescens Mazel) using modified soybean protein isolate (SPI) based adhesives. European Journal of Wood and Wood Products, 2015, 73, 781-792.	1.3	8
49	Bonding of densified beech wood using adhesives based on thermally modified soy proteins. European Journal of Wood and Wood Products, 2017, 75, 767-776.	1.3	8
50	Bending performance of 3-layer beech (Fagus sylvativa L.) and Norway spruce (Picea abies (L.) Karst.) VTC composites bonded with phenolâ€“formaldehyde adhesive and liquefied wood. European Journal of Wood and Wood Products, 2013, 71, 507-514.	1.3	7
51	A capacitive multi-wavelength sensor for moisture content gradient sensing in wood. Wood Science and Technology, 2018, 52, 717-732.	1.4	7
52	Performance of Light-Frame Timber Shear Walls Produced with Weathered Sheathing. Journal of Architectural Engineering, 2020, 26, .	0.8	7
53	Resistance of resin-impregnated VTC processed hybrid-poplar to fungal attack. International Biodeterioration and Biodegradation, 2015, 99, 174-176.	1.9	6
54	Influence of stress level on compression deformation of wood in 170Â°C transient steam conditions. Wood Material Science and Engineering, 2011, 6, 105-111.	1.1	5

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55	Transverse compression behavior of Douglas-fir (Pseudotsuga menziesii) in saturated steam environment. European Journal of Wood and Wood Products, 2013, 71, 443-449.	1.3	5
56	Unification of problem solving environment implementation layers with XML-based specifications. Advances in Engineering Software, 2008, 39, 189-201.	1.8	4
57	Data driven surrogate-based optimization in the problem solving environment WBCSim. Engineering With Computers, 2011, 27, 211-223.	3.5	4
58	Effect of chemical and thermal modification, and material replacement on strand board properties. European Journal of Wood and Wood Products, 2020, 78, 565-575.	1.3	4
59	Moisture Transport in Wood-Based Structural Panels under Transient Hygroscopic Conditions. Forest Products Journal, 2020, 70, 283-292.	0.2	4
60	Simulation of the Hot-pressing of a Multi-layered Wood Strand Composite. Journal of Composite Materials, 2007, 41, 879-904.	1.2	3
61	Potential error in density profile measurements for wood composites. European Journal of Wood and Wood Products, 2011, 69, 167-169.	1.3	3
62	Laboratory and Outdoor Weathering of Wood-Composite I-Joists. Journal of Materials in Civil Engineering, 2018, 30, 04018148.	1.3	3
63	Method of Stabilizing Heavily Spalted Big Leaf Maple as a Decorative Coating Veneer Layer for Engineered Wood Flooring. Coatings, 2019, 9, 132.	1.2	3
64	Integrating optical measurement and modelling for quantitative analysis of the micromechanical load transfer in the wood-adhesive bond interphase. International Wood Products Journal, 2016, 7, 231-234.	0.6	2
65	Commercialization Potential of Viscoelastic Thermal Compressed Wood: Insights from the US Forest Products Industry. Forest Products Journal, 2011, 61, 500-509.	0.2	2
66	Potential for Using Essential Oils to Protect Viscoelastic Thermal Compressionâ€"Treated Hybrid Poplar. Forest Products Journal, 2015, 65, 93-99.	0.2	2
67	SMALL SPECIMEN COMPRESSION TESTING IN A PRESSURIZED STEAM ENVIRONMENT. Experimental Techniques, 1990, 14, 17-19.	0.9	1
68	Computational steering in the problem solving environment WBCSim. Engineering Computations, 2011, 28, 888-911.	0.7	1
69	Comparison of transverse compression creep ofPseudotsuga menziesiiandPopulus sp. in high-temperature steam environments. Wood Material Science and Engineering, 2014, 9, 84-91.	1.1	1
70	Effect of Alkali Treatment on the Tensile Properties of Grape Cane Fibers by Integrating Digital Image Correlation Method. Wood and Fiber Science, 2020, 52, 365-379.	0.2	1
71	Alkali Concentration and Diluent Effects on Properties of Grape Cane Fiber-Reinforced Polymer Composites. Polymers, 2021, 13, 4055.	2.0	1
72	Influence of Specimen Size on Accelerated Weathering of Laminated Veneer Lumber. Forest Products Journal, 2019, 69, 70-80.	0.2	0