Charles R Frihart

List of Publications by Year
in descending order

51 papers	1,938 citations	25 h-index	43 g-index
56 all docs	56 docs citations	56 times ranked	1677 citing authors

270111

286692

#	Article	IF	Citations
1	Improved Wood-Bond Strengths Using Soy and Canola Flours with pMDI and PAE. Polymers, 2022, 14, 1272.	2.0	3
2	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
3	Comparative Adhesive Bonding of Wood Chemically Modified with Either Acetic Anhydride or Butylene Oxide. Forests, 2021, 12, 546.	0.9	6
4	Comparison of Canola and Soy Flour with Added Isocyanate as Wood Adhesives. JAOCS, Journal of the American Oil Chemists' Society, 2020, 97, 1371-1383.	0.8	11
5	Measurement of moisture-dependent ion diffusion constants in wood cell wall layers using time-lapse micro X-ray fluorescence microscopy. Scientific Reports, 2020, 10, 9919.	1.6	18
6	Standard Test Method ASTM D 7998-19 for the Cohesive Strength Development of Wood Adhesives. Journal of Visualized Experiments, 2020, , .	0.2	1
7	X-ray methods to observe and quantify adhesive penetration into wood. Journal of Materials Science, 2019, 54, 705-718.	1.7	28
8	Reactions of Soy Flour and Soy Protein by Non-Volatile Aldehydes Generation by Specific Oxidation. Polymers, 2019, 11, 1478.	2.0	46
9	Specific oxidants improve the wood bonding strength of soy and other plant flours. Journal of Polymer Science Part A, 2019, 57, 1017-1023.	2.5	57
10	Acetylation increases relative humidity threshold for ion transport in wood cell walls â€“ A means to understanding decay resistance. International Biodeterioration and Biodegradation, 2018, 133, 230-237.	1.9	29
11	Understanding Wood Bondsâ€“Going Beyond What Meets the Eye: A Critical Review. Reviews of Adhesion and Adhesives, 2018, 6, 369-440.	3.3	42
12	Adhesives for Achieving Durable Bonds with Acetylated Wood. Polymers, 2017, 9, 731.	2.0	24
13	High Bonding Temperatures Greatly Improve Soy Adhesive Wet Strength. Polymers, 2016, 8, 394.	2.0	21
14	The influence of log soaking temperature on surface quality and integrity performance of birch (Betula pendula Roth) veneer. Wood Science and Technology, 2016, 50, 463-474.	1.4	13
15	Synchrotron-based X-ray Fluorescence Microscopy in Conjunction with Nanoindentation to Study Molecular-Scale Interactions of Phenolâ€“Formaldehyde in Wood Cell Walls. ACS Applied Materials & Interfaces, 2015, 7, 6584-6589.	4.0	70
16	Introduction to Special Issue: Wood Adhesives: Past, Present, and Future. Forest Products Journal, 2015, 65, 4-8.	0.2	39
17	Soy Flour Adhesive Strength Compared with That of Purified Soy Proteins*. Forest Products Journal, 2015, 65, 26-30.	0.2	18
18	Wood as Polar Size Exclusion Chromatography Media: Implications to Adhesive Performance*. Forest Products Journal, 2015, 65, 9-14.	0.2	6

#	ARTICLE	IF	CITATIONS
19	Chemical Modification of Kraft Lignin: Effect on Chemical and Thermal Properties. BioResources, 2014, 9, .	0.5	26
20	Soy Properties and Soy Wood Adhesives. ACS Symposium Series, 2014, , 167-192.	0.5	36
21	The influence of felling season and log-soaking temperature on the wetting and phenol formaldehyde adhesive bonding characteristics of birch veneer. Holzforschung, 2014, 68, 965-970.	0.9	19
22	Soy flour dispersibility and performance as wood adhesive. Journal of Adhesion Science and Technology, 2013, 27, 2043-2052.	1.4	47
23	Hardness evaluation of cured ureaâ€"formaldehyde resins with different formaldehyde/urea mole ratios using nanoindentation method. European Polymer Journal, 2013, 49, 3089-3094.	2.6	20
24	The influence of lathe check depth and orientation on the bond quality of phenol-formaldehyde â€" bonded birch plywood. Holzforschung, 2013, 67, 779-786.	0.9	31
25	High temperature performance of soy-based adhesives. Journal of Adhesion Science and Technology, 2013, 27, 2027-2042.	1.4	12
26	Protein Modifiers Generally Provide Limited Improvement in Wood Bond Strength of Soy Flour Adhesives. Forest Products Journal, 2013, 63, 138-142.	0.2	19
27	Formaldehyde Emissions from Urea-Formaldehydeâ€" and No-Added-Formaldehydeâ€"Bonded Particleboard as Influenced by Temperature and Relative Humidity. Forest Products Journal, 2012, 62, 551-558.	0.2	23
28	Delineating pMDI model reactions with loblolly pine via solution-state NMR spectroscopy. Part 1. Catalyzed reactions with wood models and wood polymers. Holzforschung, 2011, 65, .	0.9	9
29	Delineating pMDI model reactions with loblolly pine via solution-state NMR spectroscopy. Part 2. Non-catalyzed reactions with the wood cell wall. Holzforschung, 2011, 65, .	0.9	8
30	Wood Adhesives: Vital for Producing Most Wood Products. Forest Products Journal, 2011, 61, 4-12.	0.2	16
31	Influence of chemical treatments on moisture-induced dimensional change and elastic modulus of earlywood and latewood. Holzforschung, 2010, 64, .	0.9	5
32	Nanoindentation near the edge. Journal of Materials Research, 2009, 24, 1016-1031.	1.2	86
33	Adhesive Groups and How They Relate to the Durability of Bonded Wood. Journal of Adhesion Science and Technology, 2009, 23, 601-617.	1.4	111
34	Characterization of nonderivatized plant cell walls using highâ€resolution solutionâ€state NMR spectroscopy. Magnetic Resonance in Chemistry, 2008, 46, 508-517.	1.1	162
35	Experimental method to account for structural compliance in nanoindentation measurements. Journal of Materials Research, 2008, 23, 1113-1127.	1.2	116
36	Creep properties of micron-size domains in ethylene glycol modified wood across 4Â½ decades in strain rate. Materials Research Society Symposia Proceedings, 2008, 1132, 1.	0.1	4

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37	Chromatographic Analysis of the Reaction of Soy Flour with Formaldehyde and Phenol for Wood Adhesives. JAOCS, Journal of the American Oil Chemists' Society, 2007, 84, 769-776.	0.8	26
38	High-soy-containing water-durable adhesives. Journal of Adhesion Science and Technology, 2006, 20, 859-873.	1.4	61
39	Wood adhesives prepared from lucerne fiber fermentation residues of Ruminococcus albus and Clostridium thermocellum. Applied Microbiology and Biotechnology, 2005, 66, 635-640.	1.7	21
40	Specific adhesion model for bonding hot-melt polyamides to vinyl. International Journal of Adhesion and Adhesives, 2004, 24, 415-422.	1.4	24
41	Synthetic, spectroscopic, and solution studies of imidazolate-bridged dicopper(II) complexes. Inorganic Chemistry, 1981, 20, 2933-2940.	1.9	54
42	Synthesis of 4,9-dihydro-4,6-dimethyl-9-oxo-1H-imidazo[1,2-a]purine and the "Y" base from Saccharomyces cerevisiae phenylalanine transfer RNA. Journal of Organic Chemistry, 1978, 43, 1644-1649.	1.7	33
43	1,N2-Ethenoguanine and N2,3-ethenoguanine. Synthesis and comparison of the electronic spectral properties of these linear and angular triheterocycles related to the Y bases. Journal of Organic Chemistry, 1977, 42, 3292-3296.	1.7	136
44	Cytokinins with different connecting links between purine and isopentenyl or benzyl groups. Phytochemistry, 1975, 14, 1687-1690.	1.4	41
45	Synthesis of 2-methylthio-cis- and trans-ribosylzeatin and their isolation from Pisum tRNA. Phytochemistry, 1974, 13, 31-37.	1.4	52
46	Intramolecular mechanism of the allylic rearrangement from O6 to C-8 in the guanine series. Double labeling experiments. Journal of the American Chemical Society, 1974, 96, 5894-5903.	6.6	22
47	Allylic rearrangement from O6 to C-8 in the guanine series. Journal of the American Chemical Society, 1973, 95, 7174-7175.	6.6	28
48	Isolation of cis-Zeatin from Corynebacterium fascians Cultures. Proceedings of the National Academy of Sciences of the United States of America, 1973, 70, 3825-3829.	3.3	75
49	Cytokinins in Pisum Transfer Ribonucleic Acid. Plant Physiology, 1972, 49, 848-851.	2.3	63
50	Perturbed [12]annulenes. Synthesis of pyracylenes. Journal of the American Chemical Society, 1971, 93, 737-745.	6.6	87
51	Chemical Modification of Soy Flour Protein and its Properties. Advanced Materials Research, 0, 343-344, 875-881.	0.3	2