Pierre Blanchet

List of Publications by Year
in descending order

127 papers	2,972 citations	172386 29 h-index	206029 48 g-index
128 all docs	128 docs citations	128 times ranked	2694 citing authors

#	Article	IF	Citations
1	Evaluating the importance of the embodied impacts of wall assemblies in the context of a low environmental impact energy mix. Building and Environment, 2022, 207, 108534.	3.0	8
2	Finite Element Study of Hyperstructure Systems with Modular Light-Frame Construction in High-Rise Buildings. Buildings, 2022, 12, 330.	1.4	2
3	Barriers, Strategies, and Best Practices for BIM Adoption in Quebec Prefabrication Small and Medium-Sized Enterprises (SMEs). Buildings, 2022, 12, 390.	1.4	17
4	Chemical surface densification of hardwood through lateral monomer impregnation and in situ EB polymerization, Part II: effect of irradiation dose on hardness, wood chemistry and polymer conversion. Journal of Materials Science, 2022, 57, 6656-6668.	1.7	1
5	Assembly Solution for Modular Buildings: Development of an Automated Connecting Device for Light-Framed Structures. Buildings, 2022, 12, 672.	1.4	5
6	Parametric Study of Lightweight Wooden Wall Assemblies for Cold and Subarctic Climates Using External Insulation. Buildings, 2022, 12, 1031.	1.4	4
7	A Parametric Study of Fire Risks of Green Roofs to Adjacent Buildings. Fire, 2022, 5, 93.	1.2	2
8	Glued-laminated timber from northern hardwoods: Effect of finger-joint profile on lamellae tensile strength. Construction and Building Materials, 2021, 271, 121591.	3.2	11
9	Parametric study of a yellow birch surface impregnation process. European Journal of Wood and Wood Products, 2021, 79, 897-906.	1.3	6
10	Chemical surface densification of hardwood through lateral monomer impregnation and in situ electron beam polymerization, Part I: density profile and surface hardness of three hardwood species. Journal of Materials Science, 2021, 56, 11309-11323.	1.7	8
11	Main Features of the Timber Structure Building Industry Business Models. Buildings, 2021, 11, 170.	1.4	8
12	A State of the Art of the Overall Energy Efficiency of Wood Buildingsâ€"An Overview and Future Possibilities. Materials, 2021, 14, 1848.	1.3	14
13	Fire Performance of Self-Tapping Screws in Tall Mass-Timber Buildings. Applied Sciences (Switzerland), 2021, 11, 3579.	1.3	6
14	Potential of the crude glycerol and citric acid mixture as a binder in medium-density fiberboard manufacturing. European Journal of Wood and Wood Products, 2021, 79, 1141.	1.3	4
15	A Method to Qualify the Impacts of Certifications for Prefabricated Constructions. Buildings, 2021, 11, 331.	1.4	4
16	Preparation of Breathable Cellulose Based Polymeric Membranes with Enhanced Water Resistance for the Building Industry. Materials, 2021, 14, 4310.	1.3	6
17	Hardness of chemically densified Yellow birch in relation to wood density, polymer content and polymer properties. Holzforschung, 2021, 75, 114-125.	0.9	7
18	Fire Performance of Intumescent Waterborne Coatings with Encapsulated APP for Wood Constructions. Coatings, 2021, 11, 1272.	1.2	7

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19	Estimating wooden prefabricated building export potential from the Province of Quebec to the northeastern United States. BioResources, 2021, 16, 7283-7299.	0.5	1
20	Regional environmental life cycle consequences of material substitutions: The case of increasing wood structures for non-residential buildings. Journal of Cleaner Production, 2021, 328, 129671.	4.6	21
21	Trends in Chemical Wood Surface Improvements and Modifications: A Review of the Last Five Years. Coatings, 2021, 11, 1514.	1.2	18
22	Collaboration among Small and Medium-Sized Enterprises as Part of Internationalization: A Systematic Review. Administrative Sciences, 2021, 11, 153.	1.5	8
23	Fire Safety in Tall Timber Building: A BIM-Based Automated Code-Checking Approach. Buildings, 2020, 10, 121.	1.4	36
24	Flammability Characteristics of Green Roofs. Buildings, 2020, 10, 126.	1.4	6
25	Use of northern hardwoods in glued-laminated timber: a study of bondline shear strength and resistance to moisture. European Journal of Wood and Wood Products, 2020, 78, 891-903.	1.3	10
26	Thermo-Mechanical Properties of a Wood Fiber Insulation Board Using a Bio-Based Adhesive as a Binder. Buildings, 2020, 10, 152.	1.4	21
27	International Scientific Conference on Hardwood Processing (ISCHP): A long journey in hardwood research. European Journal of Wood and Wood Products, 2020, 78, 839-840.	1.3	0
28	Steatite Powder Additives in Wood-Cement Drywall Particleboards. Materials, 2020, 13, 4813.	1.3	4
29	Technical Performance Overview of Bio-Based Insulation Materials Compared to Expanded Polystyrene. Buildings, 2020, 10, 81.	1.4	22
30	Fire hazard of compressed straw as an insulation material for wooden structures. Fire and Materials, 2020, 44, 736-746.	0.9	10
31	Characterization of Rigid Composite Polyester Foams Derived from Biomass. Journal of Polymers and the Environment, 2020, 28, 1601-1613.	2.4	4
32	Wood Productions and Renewable Materials: The Future Is Now. Forests, 2020, 11, 657.	0.9	4
33	Improvement of White Spruce Wood Dimensional Stability by Organosilanes Sol-Gel Impregnation and Heat Treatment. Materials, 2020, 13, 973.	1.3	10
34	Interactions between a Buffered Amine Oxide Impregnation Carrier and an Acrylic Resin, and Their Relationship with Moisture. Coatings, 2020, 10, 366.	1.2	1
35	Characterization of the diffusion of organic fungicides with amine oxides in white pine and white spruce. BioResources, 2020, 15, 1026-1049.	0.5	1
36	Characterising the development trends driving sustainable neighborhoods. Buildings and Cities, 2020, 1, 164-181.	1.1	3

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37	Thermal characterization of bio-based phase changing materials in decorative wood-based panels for thermal energy storage. Green Energy and Environment, 2019, 4, 56-65.	4.7	42
38	Development of novel building composites based on hemp and multi-functional silica matrix. Composites Part B: Engineering, 2019, 156, 266-273.	5.9	28
39	Optimizing Quality of Wood Pellets Made of Hardwood Processing Residues. Forests, 2019, 10, 607.	0.9	24
40	Heat Transfer Behavior of Green Roof Systems Under Fire Condition: A Numerical Study. Buildings, 2019, 9, 206.	1.4	7
41	The Effect of Wood Ash as a Partial Cement Replacement Material for Making Wood-Cement Panels. Materials, 2019, 12, 2766.	1.3	24
42	Robustness of energy consumption and comfort in high-performance residential building with respect to occupant behavior. Energy, 2019, 188, 115978.	4.5	32
43	Regionalised Life Cycle Assessment of Bio-Based Materials in Construction; the Case of Hemp Shiv Treated with Sol-Gel Coatings. Materials, 2019, 12, 2987.	1.3	17
44	Life Cycle Assessment Contribution in the Product Development Process: Case Study of Wood Aluminum-Laminated Panel. Sustainability, 2019, 11, 2258.	1.6	13
45	Evaluation of the Impacts of Four Weathering Methods on Two Acrylic Paints: Showcasing Distinctions and Particularities. Coatings, 2019, 9, 121.	1.2	16
46	Streamlined Life Cycle Assessment of an Innovative Bio-Based Material in Construction: A Case Study of a Phase Change Material Panel. Forests, 2019, 10, 160.	0.9	21
47	The Use of Low-pressure Plasma on Enhancing the Attachment of Al₂O₃ Nanoparticles to Woodâ€“Plastic Composites. Journal of Wood Chemistry and Technology, 2018, 38, 71-83.	0.9	3
48	Weathering of wood coated with semi-clear coating: Study of interactions between photo and biodegradation. International Biodeterioration and Biodegradation, 2018, 129, 33-41.	1.9	15
49	Understanding energy consumption in high-performance social housing buildings: A case study from Canada. Energy, 2018, 145, 677-690.	4.5	46
50	Glycerol and Citric Acid Treatment of Lodgepole Pine. Journal of Wood Chemistry and Technology, 2018, 38, 123-136.	0.9	11
51	Effects of interior wood finishes on the lighting ambiance and materiality of architectural spaces. Indoor and Built Environment, 2018, 27, 786-804.	1.5	22
52	Determination of In Situ Esterification Parameters of Citric Acid-Glycerol Based Polymers for Wood Impregnation. Journal of Polymers and the Environment, 2018, 26, 970-979.	2.4	40
53	Hydrophobicity of hemp shiv treated with sol-gel coatings. Applied Surface Science, 2018, 434, 850-860.	3.1	28
54	LEED v4: Where Are We Now? Critical Assessment through the LCA of an Office Building Using a Low Impact Energy Consumption Mix. Journal of Industrial Ecology, 2018, 22, 1105-1116.	2.8	28

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55	Collaboration Enables Innovative Timber Structure Adoption in Construction. Buildings, 2018, 8, 183.	1.4	15
56	Performance of Wood-Based Panels Integrated with a Bio-Based Phase Change Material: A Full-Scale Experiment in a Cold Climate with Timber-Frame Huts. Energies, 2018, 11, 3093.	1.6	28
57	Impregnation of Wood with Microencapsulated Bio-Based Phase Change Materials for High Thermal Mass Engineered Wood Flooring. Applied Sciences (Switzerland), 2018, 8, 2696.	1.3	34
58	Comparison of two encapsulation systems of UV stabilizers on the UV protection efficiency of wood clear coats. Journal of Polymer Engineering, 2018, 39, 94-103.	0.6	7
59	Evaluating the Link between Low Carbon Reductions Strategies and Its Performance in the Context of Climate Change: A Carbon Footprint of a Wood-Frame Residential Building in Quebec, Canada. Sustainability, 2018, 10, 2715.	1.6	37
60	Effect of Adding UV Absorbers Embedded in Carbonate Calcium Templates Covered with Light Responsive Polymer into a Clear Wood Coating. Coatings, 2018, 8, 265.	1.2	9
61	Preparation and characterisation of flame retardant encapsulated with functionalised silica-based shell. Journal of Microencapsulation, 2018, 35, 428-438.	1.2	10
62	Assessing the Climate Change Impacts of Biogenic Carbon in Buildings: A Critical Review of Two Main Dynamic Approaches. Sustainability, 2018, 10, 2020.	1.6	65
63	Evaluation of environmental impacts of citric acid and glycerol outdoor softwood treatment: Case-study. Journal of Cleaner Production, 2017, 164, 1507-1518.	4.6	7
64	Enhancing the water repellency of wood surfaces by atmospheric pressure cold plasma deposition of fluorocarbon film. RSC Advances, 2017, 7, 29159-29169.	1.7	9
65	Impact of a reinforcement treatment with acrylate impregnation on the mechanical behavior of black spruce as connector member. Construction and Building Materials, 2017, 141, 517-525.	3.2	0
66	Synthesis and incorporation of poly(methyl methacrylate) microspheres with UV stabilizers in wood clear coating binder. Journal of Coatings Technology Research, 2017, 14, 1411-1422.	1.2	1
67	Wood Cladding in Non-residential Construction: Overcoming the Barriers to Leverage the Opportunities. BioResources, 2017, 13, .	0.5	1
68	Environmental Performance of Eastern Canadian Wood Pellets as Measured Through Life Cycle Assessment. Forests, 2017, 8, 352.	0.9	13
69	The Multifactorial Aspect of Wood Weathering: A Review Based on a Holistic Approach of wood Degradation Protected by Clear Coating. BioResources, 2017, 13, .	0.5	28
70	Main Motivations and Barriers for Using Wood in Multi-Story and Non-Residential Construction Projects. BioResources, 2016, 12, .	0.5	26
71	Pine Wood Treated with a Citric Acid and Glycerol Mixture: Biomaterial Performance Improved by a Bio-byproduct. BioResources, 2016, 11, .	0.5	17
72	Mechanical Performance of Polyurethane and Epoxy Adhesives in Connections with Glued-in Rods at Elevated Temperatures. BioResources, 2016, 11, .	0.5	17

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73	Adhesion performance and film formation of acrylic emulsion coating on medium density fiberboard treated with Ar plasma. International Journal of Adhesion and Adhesives, 2016, 70, 322-328.	1.4	8
74	Wood degradation under UV irradiation: A lignin characterization. Journal of Photochemistry and Photobiology B: Biology, 2016, 158, 184-191.	1.7	158
75	Prospects for Appearance Wood Products Ecodesign in the Context of Nonresidential Applications. Forest Products Journal, 2016, 66, 196-210.	0.2	4
76	Aluminum-laminated Panels: Physical and Mechanical Properties. BioResources, 2015, 10, .	0.5	5
77	Maleic Anhydride Treated Wood: Effects of Drying Time and Esterification Temperature on Properties. BioResources, 2015, 10, .	0.5	6
78	UV-LED Curing Efficiency of Wood Coatings. Coatings, 2015, 5, 1019-1033.	1.2	16
79	Studying dispersion quality of nanoparticles into a bio-based coating. Progress in Organic Coatings, 2015, 89, 246-251.	1.9	8
80	Determination of active species in the modification of hardwood samples in the flowing afterglow of N2 dielectric barrier discharges open to ambient air. Cellulose, 2015, 22, 811-827.	2.4	27
81	The environmental footprint of interior wood doors in non-residential buildings â€“ part 1: life cycle assessment. Journal of Cleaner Production, 2015, 109, 232-246.	4.6	29
82	Electron-Beam Curing of Acrylate/Nanoparticle Impregnated Wood Products. BioResources, 2015, 10, .	0.5	6
83	Reducing the environmental footprint of interior wood doors inÂnon-residential buildings â€“ part 2: ecodesign. Journal of Cleaner Production, 2015, 109, 247-259.	4.6	23
84	Modification of hardwood samples in the flowing afterglow of N2â€“O2 dielectric barrier discharges open to ambient air. Cellulose, 2015, 22, 3397-3408.	2.4	18
85	The Effects of Acrylate Impregnation of Black Spruce Timber as Connectors Strength. BioResources, 2015, 11, .	0.5	2
86	Determining the Linear Viscoelastic Region of Sugar Maple Wood by Dynamic Mechanical Analysis. BioResources, 2014, 9, .	0.5	10
87	Effect of Wood Surface Modification by Atmospheric-Pressure Plasma on Waterborne Coating Adhesion. BioResources, 2014, 9, .	0.5	23
88	Production and properties of wood-welded panels made from two Canadian hardwoods. Wood Science and Technology, 2013, 47, 1005-1018.	1.4	8
89	Improved water repellency of black spruce wood surfaces after treatment in carbon tetrafluoride plasmas. Wood Science and Technology, 2013, 47, 411-422.	1.4	44
90	Using life cycle thinking to analyze environmental labeling: the case of appearance wood products. International Journal of Life Cycle Assessment, 2013, 18, 722-742.	2.2	14

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91	Role of substrate outgassing on the formation dynamics of either hydrophilic or hydrophobic wood surfaces in atmospheric-pressure, organosilicon plasmas. Surface and Coatings Technology, 2013, 234, 42-47.	2.2	34
92	Performance of exterior semitransparent PVDFâ€“acrylic coatings. Journal of Coatings Technology Research, 2013, 10, 37-46.	1.2	8
93	Ultrasonication Technique: A Method for Dispersing Nanoclay in Wood Adhesives. Journal of Nanomaterials, 2013, 2013, 1-9.	1.5	66
94	Determination of optimal wood-dowel welding parameters for two North American hardwood species. Journal of Adhesion Science and Technology, 2013, 27, 566-576.	1.4	21
95	Mechanical behaviour of sugar maple in cantilever bending under constant and variable relative humidity conditions. International Wood Products Journal, 2013, 4, 225-231.	0.6	14
96	Nanocrystalline Cellulose as Effect Pigment in Clear Coatings for Wood. ISRN Nanomaterials, 2013, 2013, 1-12.	0.7	12
97	Metal Oxide Sol-Gels (ZrO2, AlO(OH), and SiO2) to Improve the Mechanical Performance of Wood Substrates. Journal of Nanoparticles, 2013, 2013, 1-8.	1.4	3
98	Water-Based and Solvent-Based Stains: Impact on the Grain Raising in Yellow Birch. BioResources, 2013, 8, .	0.5	16
99	Characterization of the Design Function in the Appearance of Wood Products for Nonresidential Buildings: A Conceptual Framework. International Journal of Designed Objects, 2013, 6, 1-16.	0.4	3
100	Deposition of Hydrophobic Functional Groups on Wood Surfaces Using Atmosphericâ€Pressure Dielectric Barrier Discharge in Heliumâ€Hexamethyldisiloxane Gas Mixtures. Plasma Processes and Polymers, 2012, 9, 1168-1175.	1.6	71
101	Nanocrystalline cellulose (NCC): A renewable nano-material for polyvinyl acetate (PVA) adhesive. European Polymer Journal, 2012, 48, 1829-1837.	2.6	166
102	Weathering resistance of opaque PVDF-acrylic coatings applied on wood substrates. Progress in Organic Coatings, 2012, 75, 494-501.	1.9	24
103	Moisture-induced stresses in engineered wood flooring with OSB substrate. Journal of Wood Science, 2012, 58, 327-335.	0.9	3
104	MINIMIZING FLOORING STRIP WEIGHT: A SHAPE OPTIMIZATION APPROACH. BioResources, 2012, 7, .	0.5	1
105	Nanocharacterization techniques for investigating the durability of wood coatings. European Polymer Journal, 2012, 48, 441-453.	2.6	31
106	OSB as substrate for engineered wood flooring. European Journal of Wood and Wood Products, 2012, 70, 37-43.	1.3	9
107	Densification of wood veneers by compression combined with heat and steam. European Journal of Wood and Wood Products, 2012, 70, 155-163.	1.3	142
108	Surface Preparation of Wood for Application of Waterborne Coatings. Forest Products Journal, 2012, 62, 39-45.	0.2	17

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109	ENGINEERED WOOD FLOORING WITH A DENSIFIED SURFACE LAYER FOR HEAVY-DUTY USE. BioResources, 2012, 7, .	0.5	15
110	Effect of addition of nanosized UV absorbers on the physico-mechanical and thermal properties of an exterior waterborne stain for wood. Progress in Organic Coatings, 2011, 72, 755-762.	1.9	63
111	Tailor made OSB for special application. European Journal of Wood and Wood Products, 2011, 69, 511-519.	1.3	12
112	UV-waterborne polyurethane-acrylate nanocomposite coatings containing alumina and silica nanoparticles for wood: mechanical, optical, and thermal properties assessment. Journal of Coatings Technology Research, 2011, 8, 211-221.	1.2	119
113	Effects of thermo-hygro-mechanical densification on the surface characteristics of trembling aspen and hybrid poplar wood veneers. Applied Surface Science, 2011, 257, 3558-3564.	3.1	68
114	Improvement of Photoprotection of Wood Coatings by Using Inorganic Nanoparticles as Ultraviolet Absorbers. Forest Products Journal, 2011, 61, 20-27.	0.2	50
115	Nanocrystalline Cellulose: Morphological, Physical, and Mechanical Properties. Forest Products Journal, 2011, 61, 104-112.	0.2	46
116	Kinetic studies of UV-waterborne nanocomposite formulations with nanoalumina and nanosilica. Progress in Organic Coatings, 2010, 67, 188-194.	1.9	52
117	Mechanical and optical properties of clay-based nanocomposites coatings for wood flooring. Progress in Organic Coatings, 2010, 67, 381-388.	1.9	43
118	Enhancing the performance of exterior waterborne coatings for wood by inorganic nanosized UV absorbers. Progress in Organic Coatings, 2010, 69, 432-441.	1.9	114
119	Wood-Dowel Bonding by High-Speed Rotation Welding â€" Application to Two Canadian Hardwood Species. Journal of Adhesion Science and Technology, 2010, 24, 1423-1436.	1.4	23
120	Modification of Sugar Maple (Acer saccharum) and Black Spruce (Picea mariana) Wood Surfaces in a Dielectric Barrier Discharge (DBD) at Atmospheric Pressure. Journal of Adhesion Science and Technology, 2010, 24, 1401-1413.	1.4	53
121	Long-Term Performance of Engineered Wood Flooring with Oriented Strand Board Substrate. Forest Products Journal, 2010, 60, 508-513.	0.2	3
122	Use of Fiberboard as Substrate in Floating Engineered Wood Flooring. Forest Products Journal, 2009, 59, 6-10.	0.2	60
123	Alumina and zirconia acrylate nanocomposites coatings for wood flooring: Photocalorimetric characterization. Progress in Organic Coatings, 2008, 61, 76-82.	1.9	48
124	Nanoclay dispersion effects on UV coatings curing. Progress in Organic Coatings, 2008, 62, 400-408.	1.9	54
125	Bark particleboard: pressing time, particle geometry and melamine overlay. Forestry Chronicle, 2008, 84, 244-250.	0.5	3
126	Particleboard made from hammer milled black spruce bark residues. Wood Science and Technology, 2000, 34, 11-19.	1.4	54

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127	Technical properties improvement of engineered flooring through hardening by acrylate surface impregnation and in-situ electron beam polymerization. European Journal of Wood and Wood Products, 0, , .	1.3	1