

Pierre Blanchet

List of Publications by Year in descending order

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127
papers

2,972
citations

172386

29
h-index

206029

48
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128
all docs

128
docs citations

128
times ranked

2694
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanocrystalline cellulose (NCC): A renewable nano-material for polyvinyl acetate (PVA) adhesive. <i>European Polymer Journal</i> , 2012, 48, 1829-1837.	2.6	166
2	Wood degradation under UV irradiation: A lignin characterization. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2016, 158, 184-191.	1.7	158
3	Densification of wood veneers by compression combined with heat and steam. <i>European Journal of Wood and Wood Products</i> , 2012, 70, 155-163.	1.3	142
4	UV-waterborne polyurethane-acrylate nanocomposite coatings containing alumina and silica nanoparticles for wood: mechanical, optical, and thermal properties assessment. <i>Journal of Coatings Technology Research</i> , 2011, 8, 211-221.	1.2	119
5	Enhancing the performance of exterior waterborne coatings for wood by inorganic nanosized UV absorbers. <i>Progress in Organic Coatings</i> , 2010, 69, 432-441.	1.9	114
6	Deposition of Hydrophobic Functional Groups on Wood Surfaces Using Atmospheric Pressure Dielectric Barrier Discharge in Helium-Hexamethyldisiloxane Gas Mixtures. <i>Plasma Processes and Polymers</i> , 2012, 9, 1168-1175.	1.6	71
7	Effects of thermo-hygro-mechanical densification on the surface characteristics of trembling aspen and hybrid poplar wood veneers. <i>Applied Surface Science</i> , 2011, 257, 3558-3564.	3.1	68
8	Ultrasonication Technique: A Method for Dispersing Nanoclay in Wood Adhesives. <i>Journal of Nanomaterials</i> , 2013, 2013, 1-9.	1.5	66
9	Assessing the Climate Change Impacts of Biogenic Carbon in Buildings: A Critical Review of Two Main Dynamic Approaches. <i>Sustainability</i> , 2018, 10, 2020.	1.6	65
10	Effect of addition of nanosized UV absorbers on the physico-mechanical and thermal properties of an exterior waterborne stain for wood. <i>Progress in Organic Coatings</i> , 2011, 72, 755-762.	1.9	63
11	Use of Fiberboard as Substrate in Floating Engineered Wood Flooring. <i>Forest Products Journal</i> , 2009, 59, 6-10.	0.2	60
12	Particleboard made from hammer milled black spruce bark residues. <i>Wood Science and Technology</i> , 2000, 34, 11-19.	1.4	54
13	Nanoclay dispersion effects on UV coatings curing. <i>Progress in Organic Coatings</i> , 2008, 62, 400-408.	1.9	54
14	Modification of Sugar Maple (<i>Acer saccharum</i>) and Black Spruce (<i>Picea mariana</i>) Wood Surfaces in a Dielectric Barrier Discharge (DBD) at Atmospheric Pressure. <i>Journal of Adhesion Science and Technology</i> , 2010, 24, 1401-1413.	1.4	53
15	Kinetic studies of UV-waterborne nanocomposite formulations with nanoalumina and nanosilica. <i>Progress in Organic Coatings</i> , 2010, 67, 188-194.	1.9	52
16	Improvement of Photoprotection of Wood Coatings by Using Inorganic Nanoparticles as Ultraviolet Absorbers. <i>Forest Products Journal</i> , 2011, 61, 20-27.	0.2	50
17	Alumina and zirconia acrylate nanocomposites coatings for wood flooring: Photocalorimetric characterization. <i>Progress in Organic Coatings</i> , 2008, 61, 76-82.	1.9	48
18	Understanding energy consumption in high-performance social housing buildings: A case study from Canada. <i>Energy</i> , 2018, 145, 677-690.	4.5	46

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19	Nanocrystalline Cellulose: Morphological, Physical, and Mechanical Properties. <i>Forest Products Journal</i> , 2011, 61, 104-112.	0.2	46
20	Improved water repellency of black spruce wood surfaces after treatment in carbon tetrafluoride plasmas. <i>Wood Science and Technology</i> , 2013, 47, 411-422.	1.4	44
21	Mechanical and optical properties of clay-based nanocomposites coatings for wood flooring. <i>Progress in Organic Coatings</i> , 2010, 67, 381-388.	1.9	43
22	Thermal characterization of bio-based phase changing materials in decorative wood-based panels for thermal energy storage. <i>Green Energy and Environment</i> , 2019, 4, 56-65.	4.7	42
23	Determination of In Situ Esterification Parameters of Citric Acid-Glycerol Based Polymers for Wood Impregnation. <i>Journal of Polymers and the Environment</i> , 2018, 26, 970-979.	2.4	40
24	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. <i>Sustainability</i> , 2018, 10, 2715.	1.6	37
25	Fire Safety in Tall Timber Building: A BIM-Based Automated Code-Checking Approach. <i>Buildings</i> , 2020, 10, 121.	1.4	36
26	Role of substrate outgassing on the formation dynamics of either hydrophilic or hydrophobic wood surfaces in atmospheric-pressure, organosilicon plasmas. <i>Surface and Coatings Technology</i> , 2013, 234, 42-47.	2.2	34
27	Impregnation of Wood with Microencapsulated Bio-Based Phase Change Materials for High Thermal Mass Engineered Wood Flooring. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2696.	1.3	34
28	Robustness of energy consumption and comfort in high-performance residential building with respect to occupant behavior. <i>Energy</i> , 2019, 188, 115978.	4.5	32
29	Nanocharacterization techniques for investigating the durability of wood coatings. <i>European Polymer Journal</i> , 2012, 48, 441-453.	2.6	31
30	The environmental footprint of interior wood doors in non-residential buildings – part 1: life cycle assessment. <i>Journal of Cleaner Production</i> , 2015, 109, 232-246.	4.6	29
31	The Multifactorial Aspect of Wood Weathering: A Review Based on a Holistic Approach of wood Degradation Protected by Clear Coating. <i>BioResources</i> , 2017, 13, .	0.5	28
32	Hydrophobicity of hemp shiv treated with sol-gel coatings. <i>Applied Surface Science</i> , 2018, 434, 850-860.	3.1	28
33	LEED v4: Where Are We Now? Critical Assessment through the LCA of an Office Building Using a Low Impact Energy Consumption Mix. <i>Journal of Industrial Ecology</i> , 2018, 22, 1105-1116.	2.8	28
34	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. <i>Energies</i> , 2018, 11, 3093.	1.6	28
35	Development of novel building composites based on hemp and multi-functional silica matrix. <i>Composites Part B: Engineering</i> , 2019, 156, 266-273.	5.9	28
36	Determination of active species in the modification of hardwood samples in the flowing afterglow of N ₂ dielectric barrier discharges open to ambient air. <i>Cellulose</i> , 2015, 22, 811-827.	2.4	27

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37	Main Motivations and Barriers for Using Wood in Multi-Story and Non-Residential Construction Projects. <i>BioResources</i> , 2016, 12, .	0.5	26
38	Weathering resistance of opaque PVDF-acrylic coatings applied on wood substrates. <i>Progress in Organic Coatings</i> , 2012, 75, 494-501.	1.9	24
39	Optimizing Quality of Wood Pellets Made of Hardwood Processing Residues. <i>Forests</i> , 2019, 10, 607.	0.9	24
40	The Effect of Wood Ash as a Partial Cement Replacement Material for Making Wood-Cement Panels. <i>Materials</i> , 2019, 12, 2766.	1.3	24
41	Wood-Dowel Bonding by High-Speed Rotation Welding " Application to Two Canadian Hardwood Species. <i>Journal of Adhesion Science and Technology</i> , 2010, 24, 1423-1436.	1.4	23
42	Effect of Wood Surface Modification by Atmospheric-Pressure Plasma on Waterborne Coating Adhesion. <i>BioResources</i> , 2014, 9, .	0.5	23
43	Reducing the environmental footprint of interior wood doors in non-residential buildings " part 2: ecodesign. <i>Journal of Cleaner Production</i> , 2015, 109, 247-259.	4.6	23
44	Effects of interior wood finishes on the lighting ambiance and materiality of architectural spaces. <i>Indoor and Built Environment</i> , 2018, 27, 786-804.	1.5	22
45	Technical Performance Overview of Bio-Based Insulation Materials Compared to Expanded Polystyrene. <i>Buildings</i> , 2020, 10, 81.	1.4	22
46	Determination of optimal wood-dowel welding parameters for two North American hardwood species. <i>Journal of Adhesion Science and Technology</i> , 2013, 27, 566-576.	1.4	21
47	Streamlined Life Cycle Assessment of an Innovative Bio-Based Material in Construction: A Case Study of a Phase Change Material Panel. <i>Forests</i> , 2019, 10, 160.	0.9	21
48	Thermo-Mechanical Properties of a Wood Fiber Insulation Board Using a Bio-Based Adhesive as a Binder. <i>Buildings</i> , 2020, 10, 152.	1.4	21
49	Regional environmental life cycle consequences of material substitutions: The case of increasing wood structures for non-residential buildings. <i>Journal of Cleaner Production</i> , 2021, 328, 129671.	4.6	21
50	Modification of hardwood samples in the flowing afterglow of N ₂ -O ₂ dielectric barrier discharges open to ambient air. <i>Cellulose</i> , 2015, 22, 3397-3408.	2.4	18
51	Trends in Chemical Wood Surface Improvements and Modifications: A Review of the Last Five Years. <i>Coatings</i> , 2021, 11, 1514.	1.2	18
52	Pine Wood Treated with a Citric Acid and Glycerol Mixture: Biomaterial Performance Improved by a Bio-byproduct. <i>BioResources</i> , 2016, 11, .	0.5	17
53	Mechanical Performance of Polyurethane and Epoxy Adhesives in Connections with Glued-in Rods at Elevated Temperatures. <i>BioResources</i> , 2016, 11, .	0.5	17
54	Regionalised Life Cycle Assessment of Bio-Based Materials in Construction; the Case of Hemp Shiv Treated with Sol-Gel Coatings. <i>Materials</i> , 2019, 12, 2987.	1.3	17

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55	Surface Preparation of Wood for Application of Waterborne Coatings. <i>Forest Products Journal</i> , 2012, 62, 39-45.	0.2	17
56	Barriers, Strategies, and Best Practices for BIM Adoption in Quebec Prefabrication Small and Medium-Sized Enterprises (SMEs). <i>Buildings</i> , 2022, 12, 390.	1.4	17
57	Water-Based and Solvent-Based Stains: Impact on the Grain Raising in Yellow Birch. <i>BioResources</i> , 2013, 8, .	0.5	16
58	UV-LED Curing Efficiency of Wood Coatings. <i>Coatings</i> , 2015, 5, 1019-1033.	1.2	16
59	Evaluation of the Impacts of Four Weathering Methods on Two Acrylic Paints: Showcasing Distinctions and Particularities. <i>Coatings</i> , 2019, 9, 121.	1.2	16
60	Weathering of wood coated with semi-clear coating: Study of interactions between photo and biodegradation. <i>International Biodeterioration and Biodegradation</i> , 2018, 129, 33-41.	1.9	15
61	Collaboration Enables Innovative Timber Structure Adoption in Construction. <i>Buildings</i> , 2018, 8, 183.	1.4	15
62	ENGINEERED WOOD FLOORING WITH A DENSIFIED SURFACE LAYER FOR HEAVY-DUTY USE. <i>BioResources</i> , 2012, 7, .	0.5	15
63	Using life cycle thinking to analyze environmental labeling: the case of appearance wood products. <i>International Journal of Life Cycle Assessment</i> , 2013, 18, 722-742.	2.2	14
64	Mechanical behaviour of sugar maple in cantilever bending under constant and variable relative humidity conditions. <i>International Wood Products Journal</i> , 2013, 4, 225-231.	0.6	14
65	A State of the Art of the Overall Energy Efficiency of Wood Buildings – An Overview and Future Possibilities. <i>Materials</i> , 2021, 14, 1848.	1.3	14
66	Environmental Performance of Eastern Canadian Wood Pellets as Measured Through Life Cycle Assessment. <i>Forests</i> , 2017, 8, 352.	0.9	13
67	Life Cycle Assessment Contribution in the Product Development Process: Case Study of Wood Aluminum-Laminated Panel. <i>Sustainability</i> , 2019, 11, 2258.	1.6	13
68	Tailor made OSB for special application. <i>European Journal of Wood and Wood Products</i> , 2011, 69, 511-519.	1.3	12
69	Nanocrystalline Cellulose as Effect Pigment in Clear Coatings for Wood. <i>ISRN Nanomaterials</i> , 2013, 2013, 1-12.	0.7	12
70	Glycerol and Citric Acid Treatment of Lodgepole Pine. <i>Journal of Wood Chemistry and Technology</i> , 2018, 38, 123-136.	0.9	11
71	Glued-laminated timber from northern hardwoods: Effect of finger-joint profile on lamellae tensile strength. <i>Construction and Building Materials</i> , 2021, 271, 121591.	3.2	11
72	Determining the Linear Viscoelastic Region of Sugar Maple Wood by Dynamic Mechanical Analysis. <i>BioResources</i> , 2014, 9, .	0.5	10

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73	Preparation and characterisation of flame retardant encapsulated with functionalised silica-based shell. <i>Journal of Microencapsulation</i> , 2018, 35, 428-438.	1.2	10
74	Use of northern hardwoods in glued-laminated timber: a study of bondline shear strength and resistance to moisture. <i>European Journal of Wood and Wood Products</i> , 2020, 78, 891-903.	1.3	10
75	Fire hazard of compressed straw as an insulation material for wooden structures. <i>Fire and Materials</i> , 2020, 44, 736-746.	0.9	10
76	Improvement of White Spruce Wood Dimensional Stability by Organosilanes Sol-Gel Impregnation and Heat Treatment. <i>Materials</i> , 2020, 13, 973.	1.3	10
77	OSB as substrate for engineered wood flooring. <i>European Journal of Wood and Wood Products</i> , 2012, 70, 37-43.	1.3	9
78	Enhancing the water repellency of wood surfaces by atmospheric pressure cold plasma deposition of fluorocarbon film. <i>RSC Advances</i> , 2017, 7, 29159-29169.	1.7	9
79	Effect of Adding UV Absorbers Embedded in Carbonate Calcium Templates Covered with Light Responsive Polymer into a Clear Wood Coating. <i>Coatings</i> , 2018, 8, 265.	1.2	9
80	Production and properties of wood-welded panels made from two Canadian hardwoods. <i>Wood Science and Technology</i> , 2013, 47, 1005-1018.	1.4	8
81	Performance of exterior semitransparent PVDF acrylic coatings. <i>Journal of Coatings Technology Research</i> , 2013, 10, 37-46.	1.2	8
82	Studying dispersion quality of nanoparticles into a bio-based coating. <i>Progress in Organic Coatings</i> , 2015, 89, 246-251.	1.9	8
83	Adhesion performance and film formation of acrylic emulsion coating on medium density fiberboard treated with Ar plasma. <i>International Journal of Adhesion and Adhesives</i> , 2016, 70, 322-328.	1.4	8
84	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. <i>Journal of Materials Science</i> , 2021, 56, 11309-11323.	1.7	8
85	Main Features of the Timber Structure Building Industry Business Models. <i>Buildings</i> , 2021, 11, 170.	1.4	8
86	Evaluating the importance of the embodied impacts of wall assemblies in the context of a low environmental impact energy mix. <i>Building and Environment</i> , 2022, 207, 108534.	3.0	8
87	Collaboration among Small and Medium-Sized Enterprises as Part of Internationalization: A Systematic Review. <i>Administrative Sciences</i> , 2021, 11, 153.	1.5	8
88	Evaluation of environmental impacts of citric acid and glycerol outdoor softwood treatment: Case-study. <i>Journal of Cleaner Production</i> , 2017, 164, 1507-1518.	4.6	7
89	Comparison of two encapsulation systems of UV stabilizers on the UV protection efficiency of wood clear coats. <i>Journal of Polymer Engineering</i> , 2018, 39, 94-103.	0.6	7
90	Heat Transfer Behavior of Green Roof Systems Under Fire Condition: A Numerical Study. <i>Buildings</i> , 2019, 9, 206.	1.4	7

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91	Hardness of chemically densified Yellow birch in relation to wood density, polymer content and polymer properties. <i>Holzforschung</i> , 2021, 75, 114-125.	0.9	7
92	Fire Performance of Intumescent Waterborne Coatings with Encapsulated APP for Wood Constructions. <i>Coatings</i> , 2021, 11, 1272.	1.2	7
93	Maleic Anhydride Treated Wood: Effects of Drying Time and Esterification Temperature on Properties. <i>BioResources</i> , 2015, 10, .	0.5	6
94	Electron-Beam Curing of Acrylate/Nanoparticle Impregnated Wood Products. <i>BioResources</i> , 2015, 10, .	0.5	6
95	Flammability Characteristics of Green Roofs. <i>Buildings</i> , 2020, 10, 126.	1.4	6
96	Parametric study of a yellow birch surface impregnation process. <i>European Journal of Wood and Wood Products</i> , 2021, 79, 897-906.	1.3	6
97	Fire Performance of Self-Tapping Screws in Tall Mass-Timber Buildings. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 3579.	1.3	6
98	Preparation of Breathable Cellulose Based Polymeric Membranes with Enhanced Water Resistance for the Building Industry. <i>Materials</i> , 2021, 14, 4310.	1.3	6
99	Aluminum-laminated Panels: Physical and Mechanical Properties. <i>BioResources</i> , 2015, 10, .	0.5	5
100	Assembly Solution for Modular Buildings: Development of an Automated Connecting Device for Light-Framed Structures. <i>Buildings</i> , 2022, 12, 672.	1.4	5
101	Steatite Powder Additives in Wood-Cement Drywall Particleboards. <i>Materials</i> , 2020, 13, 4813.	1.3	4
102	Characterization of Rigid Composite Polyester Foams Derived from Biomass. <i>Journal of Polymers and the Environment</i> , 2020, 28, 1601-1613.	2.4	4
103	Wood Productions and Renewable Materials: The Future Is Now. <i>Forests</i> , 2020, 11, 657.	0.9	4
104	Potential of the crude glycerol and citric acid mixture as a binder in medium-density fiberboard manufacturing. <i>European Journal of Wood and Wood Products</i> , 2021, 79, 1141.	1.3	4
105	A Method to Qualify the Impacts of Certifications for Prefabricated Constructions. <i>Buildings</i> , 2021, 11, 331.	1.4	4
106	Prospects for Appearance Wood Products Ecodesign in the Context of Nonresidential Applications. <i>Forest Products Journal</i> , 2016, 66, 196-210.	0.2	4
107	Parametric Study of Lightweight Wooden Wall Assemblies for Cold and Subarctic Climates Using External Insulation. <i>Buildings</i> , 2022, 12, 1031.	1.4	4
108	Bark particleboard: pressing time, particle geometry and melamine overlay. <i>Forestry Chronicle</i> , 2008, 84, 244-250.	0.5	3

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109	Moisture-induced stresses in engineered wood flooring with OSB substrate. <i>Journal of Wood Science</i> , 2012, 58, 327-335.	0.9	3
110	Metal Oxide Sol-Gels (ZrO ₂ , AlO(OH), and SiO ₂) to Improve the Mechanical Performance of Wood Substrates. <i>Journal of Nanoparticles</i> , 2013, 2013, 1-8.	1.4	3
111	The Use of Low-pressure Plasma on Enhancing the Attachment of Al ₂ O ₃ Nanoparticles to Wood-Plastic Composites. <i>Journal of Wood Chemistry and Technology</i> , 2018, 38, 71-83.	0.9	3
112	Long-Term Performance of Engineered Wood Flooring with Oriented Strand Board Substrate. <i>Forest Products Journal</i> , 2010, 60, 508-513.	0.2	3
113	Characterising the development trends driving sustainable neighborhoods. <i>Buildings and Cities</i> , 2020, 1, 164-181.	1.1	3
114	Characterization of the Design Function in the Appearance of Wood Products for Nonresidential Buildings: A Conceptual Framework. <i>International Journal of Designed Objects</i> , 2013, 6, 1-16.	0.4	3
115	The Effects of Acrylate Impregnation of Black Spruce Timber as Connectors Strength. <i>BioResources</i> , 2015, 11, .	0.5	2
116	Finite Element Study of Hyperstructure Systems with Modular Light-Frame Construction in High-Rise Buildings. <i>Buildings</i> , 2022, 12, 330.	1.4	2
117	A Parametric Study of Fire Risks of Green Roofs to Adjacent Buildings. <i>Fire</i> , 2022, 5, 93.	1.2	2
118	MINIMIZING FLOORING STRIP WEIGHT: A SHAPE OPTIMIZATION APPROACH. <i>BioResources</i> , 2012, 7, .	0.5	1
119	Synthesis and incorporation of poly(methyl methacrylate) microspheres with UV stabilizers in wood clear coating binder. <i>Journal of Coatings Technology Research</i> , 2017, 14, 1411-1422.	1.2	1
120	Wood Cladding in Non-residential Construction: Overcoming the Barriers to Leverage the Opportunities. <i>BioResources</i> , 2017, 13, .	0.5	1
121	Interactions between a Buffered Amine Oxide Impregnation Carrier and an Acrylic Resin, and Their Relationship with Moisture. <i>Coatings</i> , 2020, 10, 366.	1.2	1
122	Characterization of the diffusion of organic fungicides with amine oxides in white pine and white spruce. <i>BioResources</i> , 2020, 15, 1026-1049.	0.5	1
123	Estimating wooden prefabricated building export potential from the Province of Quebec to the northeastern United States. <i>BioResources</i> , 2021, 16, 7283-7299.	0.5	1
124	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. <i>Journal of Materials Science</i> , 2022, 57, 6656-6668.	1.7	1
125	Technical properties improvement of engineered flooring through hardening by acrylate surface impregnation and in-situ electron beam polymerization. <i>European Journal of Wood and Wood Products</i> , 0, , .	1.3	1
126	Impact of a reinforcement treatment with acrylate impregnation on the mechanical behavior of black spruce as connector member. <i>Construction and Building Materials</i> , 2017, 141, 517-525.	3.2	0

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127	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