Mehdi Tajvidi

List of Publications by Year
in descending order

103 papers	3,904 citations	117453 34 h-index	143772 57 g-index
105 all docs	105 docs citations	105 times ranked	3819 citing authors

#	Article	IF	Citations
1	Recycling of natural fiber composites: Challenges and opportunities. Resources, Conservation and Recycling, 2022, 177, 105962.	5.3	62
2	Fungal and enzymatic pretreatments in hot-pressed lignocellulosic bio-composites: A critical review. Journal of Cleaner Production, 2022, 353, 131659.	4.6	15
3	Contact-dewatered cellulose nanomaterials for reinforced biopolymer composites. Materials Today Communications, 2022, 31, 103443.	0.9	2
4	Recyclable grease-proof cellulose nanocomposites with enhanced water resistance for food serving applications. Cellulose, 2022, 29, 5623-5643.	2.4	7
5	Transparent Multifunctional Cellulose Nanocrystal Films Prepared Using Trivalent Metal Ion Exchange for Food Packaging. ACS Sustainable Chemistry and Engineering, 2022, 10, 9419-9430.	3.2	14
6	Flexible polyurethane foams reinforced with organic and inorganic nanofillers. Journal of Applied Polymer Science, 2021, 138, 49983.	1.3	20
7	Improving fire retardancy of unheated and heat-treated fir wood by nano-sepiolite. European Journal of Wood and Wood Products, 2021, 79, 841-849.	1.3	13
8	Effects of fungal biodegradation on structureâ€“property relationships of medium density fibre board and hybrid polypropylene composite made from sugar-cane residue. International Wood Products Journal, 2021, 12, 152-163.	0.6	5
9	Numerical Simulation of the Water Vapor Separation of a Moisture-Selective Hollow-Fiber Membrane for the Application in Wood Drying Processes. Membranes, 2021, 11, 593.	1.4	1
10	Comprehensive Insight into Foams Made of Thermomechanical Pulp Fibers and Cellulose Nanofibrils via Microwave Radiation. ACS Sustainable Chemistry and Engineering, 2021, 9, 10113-10122.	3.2	12
11	Multi-layer oil-resistant food serving containers made using cellulose nanofiber coated wood flour composites. Carbohydrate Polymers, 2021, 267, 118221.	5.1	17
12	All-Natural Smart Mycelium Surface with Tunable Wettability. ACS Applied Bio Materials, 2021, 4, 1015-1022.	2.3	21
13	Alignment of Cellulose Nanofibers: Harnessing Nanoscale Properties to Macroscale Benefits. ACS Nano, 2021, 15, 3646-3673.	7.3	108
14	Highly Efficient Iron Oxide Nanoparticles Immobilized on Cellulose Nanofibril Aerogels for Arsenic Removal from Water. Nanomaterials, 2021, 11, 2818.	1.9	14
15	Step aside, aluminum honeycomb. Science, 2021, 374, 400-401.	6.0	0
16	Tuning physical, mechanical and barrier properties of cellulose nanofibril films through film drying techniques coupled with thermal compression. Cellulose, 2021, 28, 11345-11366.	2.4	16
17	Modeling Microwave Heating and Drying of Lignocellulosic Foams through Coupled Electromagnetic and Heat Transfer Analysis. Processes, 2021, 9, 2001.	1.3	6
18	Modeling the hygrothermal creep behavior of wood plastic composite (WPC) lumber made from thermally modified wood. Journal of Thermoplastic Composite Materials, 2020, 33, 1109-1124.	2.6	4

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19	Experimental investigation of the hygrothermal creep strain of woodâ€“plastic composite lumber made from thermally modified wood. Journal of Thermoplastic Composite Materials, 2020, 33, 1248-1268.	2.6	14
20	Birefringence-based orientation mapping of cellulose nanofibrils in thin films. Cellulose, 2020, 27, 677-692.	2.4	13
21	Cellulose and lignocellulose nanofibril suspensions and films: A comparison. Carbohydrate Polymers, 2020, 250, 117011.	5.1	34
22	Towards industrial-scale production of cellulose nanocomposites using melt processing: A critical review on structure-processing-property relationships. Composites Part B: Engineering, 2020, 201, 108297.	5.9	41
23	Characterization and properties of hybrid foams from nanocellulose and kaolin-microfibrillated cellulose composite. Scientific Reports, 2020, 10, 17459.	1.6	16
24	High-Strength Polylactic Acid (PLA) Biocomposites Reinforced by Epoxy-Modified Pine Fibers. ACS Sustainable Chemistry and Engineering, 2020, 8, 13236-13247.	3.2	59
25	Functionality of Surface Mycelium Interfaces in Wood Bonding. ACS Applied Materials & Interfaces, 2020, 12, 57431-57440.	4.0	32
26	Enhancing the Oxygen Barrier Properties of Nanocellulose at High Humidity: Numerical and Experimental Assessment. Sustainable Chemistry, 2020, 1, 198-208.	2.2	16
27	Laminated Wallboard Panels Made with Cellulose Nanofibrils as a Binder: Production and Properties. Materials, 2020, 13, 1303.	1.3	10
28	Paper-Based Oil Barrier Packaging using Lignin-Containing Cellulose Nanofibrils. Molecules, 2020, 25, 1344.	1.7	65
29	Mechanical and thermal behavior of cellulose nanocrystals-incorporated AcrodurÂ® sustainable hybrid composites for automotive applications. Journal of Composite Materials, 2020, 54, 3159-3169.	1.2	6
30	Cellulose nanofibrils versus cellulose nanocrystals: Comparison of performance in flexible multilayer films for packaging applications. Food Packaging and Shelf Life, 2020, 23, 100464.	3.3	66
31	The synergy between cellulose nanofibrils and calcium carbonate in a hybrid composite system. Cellulose, 2020, 27, 3773-3787.	2.4	12
32	Exploration of membrane-based dehumidification system to improve the energy efficiency of kiln drying processes: Part 1 â€“ Factors that affect moisture removal efficiency. Wood and Fiber Science, 2020, 52, 313-325.	0.2	4
33	Dewatering Behavior of a Wood-Cellulose Nanofibril Particulate System. Scientific Reports, 2019, 9, 14584.	1.6	24
34	Physical and Mechanical Properties of Wood-Plastic Composites Made with Microfibrillar Blends of LDPE, HDPE and PET. Fibers and Polymers, 2019, 20, 2156-2165.	1.1	16
35	Evaluation of the adhesion performance of latex-starch mixtures to calcium carbonate surfaces. Nordic Pulp and Paper Research Journal, 2019, 34, 318-325.	0.3	6
36	Effects of bentonite on physical, mechanical and barrier properties of cellulose nanofibril hybrid films for packaging applications. Cellulose, 2019, 26, 5363-5379.	2.4	38

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37	Structure-Property Relationships in Hybrid Cellulose Nanofibrils/Nafion-Based Ionic Polymer-Metal Composites. Materials, 2019, 12, 1269.	1.3	15
38	Fully Bio-Based Hybrid Composites Made of Wood, Fungal Mycelium and Cellulose Nanofibrils. Scientific Reports, 2019, 9, 3766.	1.6	69
39	Printing Birefringent Figures by Surface Tension-Directed Self-Assembly of a Cellulose Nanocrystal/Polymer Ink Components. ACS Applied Materials & Interfaces, 2019, 11, 1538-1545.	4.0	18
40	Sustainable Barrier System via Self-Assembly of Colloidal Montmorillonite and Cross-linking Resins on Nanocellulose Interfaces. ACS Applied Materials & Interfaces, 2019, 11, 1604-1615.	4.0	46
41	Thermal properties of spray-dried cellulose nanofibril-reinforced polypropylene composites from extrusion-based additive manufacturing. Journal of Thermal Analysis and Calorimetry, 2019, 136, 1069-1077.	2.0	22
42	Cracking at the fold in double layer coated paper: the influence of latex and starch composition. Tappi Journal, 2019, 18, 93-99.	0.2	5
43	Reinforcement of natural fiber yarns by cellulose nanomaterials: A multi-scale study. Industrial Crops and Products, 2018, 111, 471-481.	2.5	27
44	Woody material structural degradation through decomposition on the forest floor. Canadian Journal of Forest Research, 2018, 48, 111-115.	0.8	5
45	Moisture and Oxygen Barrier Properties of Cellulose Nanomaterial-Based Films. ACS Sustainable Chemistry and Engineering, 2018, 6, 49-70.	3.2	354
46	Cellulose Nanomaterialsâ€"Binding Properties and Applications: A Review. Molecules, 2018, 23, 2684.	1.7	267
47	Effect of wettability and surface free energy of collection substrates on the structure and morphology of dry-spun cellulose nanofibril filaments. Cellulose, 2018, 25, 6305-6317.	2.4	25
48	Spray-Dried Cellulose Nanofibril-Reinforced Polypropylene Composites for Extrusion-Based Additive Manufacturing: Nonisothermal Crystallization Kinetics and Thermal Expansion. Journal of Composites Science, 2018, 2, 7.	1.4	35
49	Production and mechanical characterization of free-standing pigmented paper coating layers with latex and starch as binder. Progress in Organic Coatings, 2018, 123, 138-145.	1.9	14
50	Application of cellulose nanofibril (CNF) as coating on paperboard at moderate solids content and high coating speed using blade coater. Progress in Organic Coatings, 2018, 122, 207-218.	1.9	44
51	Isolation of lignocellulose nanofibrils (LCNF) and application as adhesive replacement in wood composites: example of fiberboard. Cellulose, 2017, 24, 3037-3050.	2.4	60
52	Structural performance of hybrid SPFs-LSL cross-laminated timber panels. Construction and Building Materials, 2017, 149, 156-163.	3.2	43
53	Preparation and property assessment of neat lignocellulose nanofibrils (LCNF) and their composite films. Cellulose, 2017, 24, 2455-2468.	2.4	60
54	Viscoelastic mapping of spruce-polyurethane bond line area using AM-FM atomic force microscopy. International Journal of Adhesion and Adhesives, 2017, 79, 59-66.	1.4	7

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55	Evaluation of the incorporation of lignocellulose nanofibrils as sustainable adhesive replacement in medium density fiberboards. Industrial Crops and Products, 2017, 109, 27-36.	2.5	58
56	Dry-Spun Neat Cellulose Nanofibril Filaments: Influence of Drying Temperature and Nanofibril Structure on Filament Properties. Polymers, 2017, 9, 392.	2.0	31
57	Utilization of Cellulose Nanofibrils as a Binder for Particleboard Manufacture. BioResources, 2017, 12, .	0.5	59
58	Effects of Density, Cellulose Nanofibrils Addition Ratio, Pressing Method, and Particle Size on the Bending Properties of Wet-formed Particleboard. BioResources, 2017, 12, .	0.5	21
59	Cellulose Nanomaterials as Binders: Laminate and Particulate Systems. Journal of Renewable Materials, 2016, 4, 365-376.	1.1	52
60	Thermal stability of cellulose nanomaterials and their composites with polyvinyl alcohol (PVA). Journal of Thermal Analysis and Calorimetry, 2016, 126, 1371-1386.	2.0	62
61	Production and Characterization of Laminates of Paper and Cellulose Nanofibrils. ACS Applied Materials & Interfaces, 2016, 8, 25520-25528.	4.0	30
62	High-temperature creep behavior of wheat straw isotactic/impact-modified polypropylene composites. Journal of Thermoplastic Composite Materials, 2015, 28, 1406-1422.	2.6	4
63	Strong Highly Anisotropic Magnetocellulose Nanocomposite Films Made by Chemical Peeling and In Situ Welding at the Interface Using an Ionic Liquid. ACS Applied Materials & Interfaces, 2014, 6, 8165-8172.	4.0	24
64	One-dimensional coreâ€"shell cellulose-akaganeite hybrid nanocrystals: synthesis, characterization, and magnetic field induced self-assembly. RSC Advances, 2014, 4, 52542-52549.	1.7	13
65	Tunable Self-Assembly of Cellulose Nanowhiskers and Polyvinyl Alcohol Chains Induced by Surface Tension Torque. Biomacromolecules, 2014, 15, 60-65.	2.6	35
66	A feasibility study of using two-component polyurethane adhesive in constructing wooden structures. Journal of Forestry Research, 2014, 25, 477-482.	1.7	3
67	Bending moment resistance of dowel corner joints in case-type furniture under diagonal compression load. Journal of Forestry Research, 2014, 25, 981-984.	1.7	5
68	Thermal transitions and temperature dependent mechanical behavior of wheat straw/talc isotactic/impact modified polypropylene composites. Journal of Reinforced Plastics and Composites, 2013, 32, 1430-1443.	1.6	1
69	Bending moment resistance of corner joints constructed with spline under diagonal tension and compression. Journal of Forestry Research, 2012, 23, 481-490.	1.7	9
70	Impacts of wood preservative treatments on some physico-mechanical properties of wood flour/high density polyethylene composites. Construction and Building Materials, 2012, 35, 246-250.	3.2	17
71	Impact strength improvement of wood flourâ€"recycled polypropylene composites. Journal of Applied Polymer Science, 2012, 124, 1074-1080.	1.3	29
72	Effects of reprocessing on the hygroscopic behavior of natural fiber highâ€density polyethylene composites. Journal of Applied Polymer Science, 2011, 122, 1258-1267.	1.3	13

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73	Recycled Natural Fiber Polypropylene Composites: Water Absorption/Desorption Kinetics and Dimensional Stability. Journal of Polymers and the Environment, 2010, 18, 500-509.	2.4	28
74	Natural Durability of a Bagasse Fiber/ Polypropylene Composite Exposed to Rainbow Fungus (Coriolus) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.6	23
75	Physical and Mechanical Properties of a Highly Filled Old Corrugated Container (OCC) Fiber/Polyethylene Composite. Journal of Reinforced Plastics and Composites, 2010, 29, 1166-1172.	1.6	8
76	Mechanical Performance of Hemp Fiber Polypropylene Composites at Different Operating Temperatures. Journal of Reinforced Plastics and Composites, 2010, 29, 664-674.	1.6	45
77	Evaluation of Time Dependent Behavior of a Wood Flour/High Density Polyethylene Composite. Journal of Reinforced Plastics and Composites, 2010, 29, 132-143.	1.6	12
78	Mechanical and Physical Properties of Wood-Plastic Composite Panels. Journal of Reinforced Plastics and Composites, 2010, 29, 310-319.	1.6	51
79	Thermal Degradation of Natural Fiber-reinforced Polypropylene Composites. Journal of Thermoplastic Composite Materials, 2010, 23, 281-298.	2.6	48
80	Effect of Thermomechanical Degradation of Polypropylene on Mechanical Properties of Wood-Polypropylene Composites. Journal of Composite Materials, 2009, 43, 2543-2554.	1.2	30
81	Effect of Particle Size, Fiber Content and Compatibilizer on the Long-term Water Absorption and Thickness Swelling Behavior of Reed Flour/Polypropylene Composites. Journal of Reinforced Plastics and Composites, 2009, 28, 2341-2351.	1.6	20
82	Effect of Cellulose Fiber Reinforcement on the Temperature Dependent Mechanical Performance of Nylon 6. Journal of Reinforced Plastics and Composites, 2009, 28, 2781-2790.	1.6	21
83	Effects of Accelerated Freezeâ€"Thaw Cycling on Physical and Mechanical Properties of Wood Flour/PVC Composites. Journal of Reinforced Plastics and Composites, 2009, 28, 1841-1846.	1.6	7
84	Effect of fiber content and type, compatibilizer, and heating rate on thermogravimetric properties of natural fiber high density polyethylene composites. Polymer Composites, 2009, 30, 1226-1233.	2.3	30
85	Effects of temperature on the mechanical properties of beech (<i>Fagus orientalis</i>Lipsky) and lime (<i>Tilia begonifolia</i>) wood. Wood Material Science and Engineering, 2009, 4, 147-153.	1.1	8
86	Hygroscopic thickness swelling rate of composites from sawdust and recycled plastics. Wood Science and Technology, 2008, 42, 161-168.	1.4	23
87	Mechanical properties of wood plastic composite panels made from waste fiberboard and particleboard. Polymer Composites, 2008, 29, 606-610.	2.3	94
88	Effect of bark flour content on the hygroscopic characteristics of woodâ€"polypropylene composites. Journal of Applied Polymer Science, 2008, 110, 3116-3120.	1.3	30
89	Effects of Water Absorption on Creep Behavior of Woodâ€"Plastic Composites. Journal of Composite Materials, 2008, 42, 993-1002.	1.2	27
90	Influence of Strain Rate on the Flexural Properties of a Wood Flour/HDPE Composite. Journal of Reinforced Plastics and Composites, 2008, 27, 1701-1708.	1.6	7

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91	Physical Properties of Novel Layered Composites of Wood Flour and PVC. Journal of Reinforced Plastics and Composites, 2008, 27, 1759-1765.	1.6	13
92	Water Absorption Behavior of Composites from Sawdust and Recycled Plastics. Journal of Reinforced Plastics and Composites, 2007, 26, 341-348.	1.6	75
93	Tensile properties of wood flour/kenaf fiber polypropylene hybrid composites. Journal of Applied Polymer Science, 2007, 105, 3054-3059.	1.3	101
94	Effect of compatibilizer on the natural durability of wood flour/high density polyethylene composites against rainbow fungus (Coriolus versicolor). Polymer Composites, 2007, 28, 273-277.	2.3	31
95	Effect of chemical reagents on the mechanical properties of natural fiber polypropylene composites. Polymer Composites, 2006, 27, 563-569.	2.3	19
96	Long-term water uptake behavior of natural fiber/polypropylene composites. Journal of Applied Polymer Science, 2006, 99, 2199-2203.	1.3	78
97	Mechanical properties of composites from sawdust and recycled plastics. Journal of Applied Polymer Science, 2006, 100, 3641-3645.	1.3	142
98	Effect of the delignification of wood fibers on the mechanical properties of wood fiberâ€“polypropylene composites. Journal of Applied Polymer Science, 2006, 102, 4759-4763.	1.3	22
99	Long-term water uptake behavior of lignocellulosic-high density polyethylene composites. Journal of Applied Polymer Science, 2006, 102, 3907-3911.	1.3	43
100	Effect of natural fibers on thermal and mechanical properties of natural fiber polypropylene composites studied by dynamic mechanical analysis. Journal of Applied Polymer Science, 2006, 101, 4341-4349.	1.3	193
101	Time-temperature superposition principle applied to a kenaf-fiber/high-density polyethylene composite. Journal of Applied Polymer Science, 2005, 97, 1995-2004.	1.3	114
102	Static and dynamic mechanical properties of a kenaf fiberâ€“wood flour/polypropylene hybrid composite. Journal of Applied Polymer Science, 2005, 98, 665-672.	1.3	47
103	Water uptake and mechanical characteristics of natural filler-polypropylene composites. Journal of Applied Polymer Science, 2003, 88, 941-946.	1.3	104