Lars A. Berglund

List of Publications by Year
in descending order

333 papers	31,721 citations	4370 86 h-index	5101 166 g-index
338 all docs	338 docs citations	338 times ranked	18932 citing authors

#	Article	IF	Citations
1	Review: current international research into cellulose nanofibres and nanocomposites. Journal of Materials Science, 2010, 45, 1-33.	1.7	2,042
2	Cellulose Nanopaper Structures of High Toughness. Biomacromolecules, 2008, 9, 1579-1585.	2.6	1,096
3	An environmentally friendly method for enzyme-assisted preparation of microfibrillated cellulose (MFC) nanofibers. European Polymer Journal, 2007, 43, 3434-3441.	2.6	1,037
4	Making flexible magnetic aerogels and stiff magnetic nanopaper using cellulose nanofibrils as templates. Nature Nanotechnology, 2010, 5, 584-588.	15.6	753
5	On the use of nanocellulose as reinforcement in polymer matrix composites. Composites Science and Technology, 2014, 105, 15-27.	3.8	669
6	Structureâ€“propertyâ€“function relationships of natural and engineered wood. Nature Reviews Materials, 2020, 5, 642-666.	23.3	616
7	Long and entangled native cellulose I nanofibers allow flexible aerogels and hierarchically porous templates for functionalities. Soft Matter, 2008, 4, 2492.	1.2	595
8	Synthesis of epoxyâ€“clay nanocomposites: influence of the nature of the clay on structure. Polymer, 2001, 42, 1303-1310.	1.8	546
9	Multifunctional bionanocomposite films of poly(lactic acid), cellulose nanocrystals and silver nanoparticles. Carbohydrate Polymers, 2012, 87, 1596-1605.	5.1	538
10	An Ultrastrong Nanofibrillar Biomaterial: The Strength of Single Cellulose Nanofibrils Revealed via Sonication-Induced Fragmentation. Biomacromolecules, 2013, 14, 248-253.	2.6	507
11	High-porosity aerogels of high specific surface area prepared from nanofibrillated cellulose (NFC). Composites Science and Technology, 2011, 71, 1593-1599.	3.8	479
12	Functionalized cellulose nanocrystals as biobased nucleation agents in poly(l-lactide) (PLLA) â€“ Crystallization and mechanical property effects. Composites Science and Technology, 2010, 70, 815-821.	3.8	459
13	Large-Area, Lightweight and Thick Biomimetic Composites with Superior Material Properties via Fast, Economic, and Green Pathways. Nano Letters, 2010, 10, 2742-2748.	4.5	435
14	Strong and Tough Cellulose Nanopaper with High Specific Surface Area and Porosity. Biomacromolecules, 2011, 12, 3638-3644.	2.6	432
15	Synthesis of epoxyâ€“clay nanocomposites. Influence of the nature of the curing agent on structure. Polymer, 2001, 42, 4493-4499.	1.8	401
16	Mechanical performance tailoring of tough ultra-high porosity foams prepared from cellulose I nanofiber suspensions. Soft Matter, 2010, 6, 1824.	1.2	400
17	Optically Transparent Wood from a Nanoporous Cellulosic Template: Combining Functional and Structural Performance. Biomacromolecules, 2016, 17, 1358-1364.	2.6	384
18	Clay Nanopaper with Tough Cellulose Nanofiber Matrix for Fire Retardancy and Gas Barrier Functions. Biomacromolecules, 2011, 12, 633-641.	2.6	383

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19	Strong Nanocomposite Reinforcement Effects in Polyurethane Elastomer with Low Volume Fraction of Cellulose Nanocrystals. Macromolecules, 2011, 44, 4422-4427.	2.2	365
20	Fast Preparation Procedure for Large, Flat Cellulose and Cellulose/Inorganic Nanopaper Structures. Biomacromolecules, 2010, 11, 2195-2198.	2.6	351
21	Bioinspired Wood Nanotechnology for Functional Materials. Advanced Materials, 2018, 30, e1704285.	11.1	341
22	Highly Conducting, Strong Nanocomposites Based on Nanocellulose-Assisted Aqueous Dispersions of Single-Wall Carbon Nanotubes. ACS Nano, 2014, 8, 2467-2476.	7.3	325
23	Biomimetic Foams of High Mechanical Performance Based on Nanostructured Cell Walls Reinforced by Native Cellulose Nanofibrils. Advanced Materials, 2008, 20, 1263-1269.	11.1	308
24	Cellulose Nanofiber Orientation in Nanopaper and Nanocomposites by Cold Drawing. ACS Applied Materials & Interfaces, 2012, 4, 1043-1049.	4.0	299
25	Surface quaternized cellulose nanofibrils with high water absorbency and adsorption capacity for anionic dyes. Soft Matter, 2013, 9, 2047.	1.2	294
26	Nanocomposites based on montmorillonite and unsaturated polyester. Polymer Engineering and Science, 1998, 38, 1351-1358.	1.5	292
27	Structure and properties of cellulose nanocomposite films containing melamine formaldehyde. Journal of Applied Polymer Science, 2007, 106, 2817-2824.	1.3	283
28	Hydrophobic cellulose nanocrystals modified with quaternary ammonium salts. Journal of Materials Chemistry, 2012, 22, 19798.	6.7	282
29	Biomimetic Polysaccharide Nanocomposites of High Cellulose Content and High Toughness. Biomacromolecules, 2007, 8, 2556-2563.	2.6	276
30	Wood Nanotechnology for Strong, Mesoporous, and Hydrophobic Biocomposites for Selective Separation of Oil/Water Mixtures. ACS Nano, 2018, 12, 2222-2230.	7.3	272
31	A High Strength Nanocomposite Based on Microcrystalline Cellulose and Polyurethane. Biomacromolecules, 2007, 8, 3687-3692.	2.6	248
32	The Effects of Crystallinity on the Mechanical Properties of PEEK Polymer and Graphite Fiber Reinforced PEEK. Journal of Composite Materials, 1987, 21, 1056-1081.	1.2	236
33	Tunable Thermosetting Epoxies Based on Fractionated and Well-Characterized Lignins. Journal of the American Chemical Society, 2018, 140, 4054-4061.	6.6	220
34	Preparation of Double Pickering Emulsions Stabilized by Chemically Tailored Nanocelluloses. Langmuir, 2014, 30, 9327-9335.	1.6	213
35	Transparent chitosan films reinforced with a high content of nanofibrillated cellulose. Carbohydrate Polymers, 2010, 81, 394-401.	5.1	209
36	Morphology and mechanical properties of unidirectional sisal- epoxy composites. Journal of Applied Polymer Science, 2002, 84, 2358-2365.	1.3	205

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37	Supramolecular Control of Stiffness and Strength in Lightweight Highâ€Performance Nacreâ€Mimetic Paper with Fireâ€Shielding Properties. Angewandte Chemie - International Edition, 2010, 49, 6448-6453.	7.2	204
38	Microstructure and nonisothermal cold crystallization of PLA composites based on silver nanoparticles and nanocrystalline cellulose. Polymer Degradation and Stability, 2012, 97, 2027-2036.	2.7	193
39	Reduced water vapour sorption in cellulose nanocomposites with starch matrix. Composites Science and Technology, 2009, 69, 500-506.	3.8	192
40	Ligninâ€Retaining Transparent Wood. ChemSusChem, 2017, 10, 3445-3451.	3.6	192
41	Surface grafting of microfibrillated cellulose with poly(Îµ-caprolactone) â€" Synthesis and characterization. European Polymer Journal, 2008, 44, 2991-2997.	2.6	182
42	Prediction of matrix-initiated transverse failure in polymer composites. Composites Science and Technology, 1996, 56, 1089-1097.	3.8	175
43	Nanostructured Wood Hybrids for Fire-Retardancy Prepared by Clay Impregnation into the Cell Wall. ACS Applied Materials & Interfaces, 2017, 9, 36154-36163.	4.0	175
44	Thermal Response in Crystalline Iβ Cellulose:â€‰ A Molecular Dynamics Study. Journal of Physical Chemistry B, 2007, 111, 9138-9145.	1.2	171
45	Cellulose Biocompositesâ€"From Bulk Moldings to Nanostructured Systems. MRS Bulletin, 2010, 35, 201-207.	1.7	168
46	Cellulose and the role of hydrogen bonds: not in charge of everything. Cellulose, 2022, 29, 1-23.	2.4	158
47	Nanostructured biocomposites of high toughnessâ€"a wood cellulose nanofiber network in ductile hydroxyethylcellulose matrix. Soft Matter, 2011, 7, 7342.	1.2	153
48	Cellulose nanofiber network for moisture stable, strong and ductile biocomposites and increased epoxy curing rate. Composites Part A: Applied Science and Manufacturing, 2014, 63, 35-44.	3.8	153
49	A criterion for crack initiation in glassy polymers subjected to a composite-like stress state. Composites Science and Technology, 1996, 56, 1291-1301.	3.8	152
50	Wood cellulose biocomposites with fibrous structures at micro- and nanoscale. Composites Science and Technology, 2011, 71, 382-387.	3.8	152
51	Polymorphism in polyamide 66/clay nanocomposites. Polymer, 2002, 43, 4967-4972.	1.8	151
52	Top-Down Approach Making Anisotropic Cellulose Aerogels as Universal Substrates for Multifunctionalization. ACS Nano, 2020, 14, 7111-7120.	7.3	147
53	Effect of Steam Treatment on the Properties of Wood Cell Walls. Biomacromolecules, 2011, 12, 194-202.	2.6	139
54	Transparent Wood for Thermal Energy Storage and Reversible Optical Transmittance. ACS Applied Materials & Interfaces, 2019, 11, 20465-20472.	4.0	139

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55	FT-IR spectroscopic study of hydrogen bonding in PA6/clay nanocomposites. Polymer, 2002, 43, 2445-2449.	1.8	138
56	Electroactive nanofibrillated cellulose aerogel composites with tunable structural and electrochemical properties. Journal of Materials Chemistry, 2012, 22, 19014.	6.7	136
57	Optically Transparent Wood: Recent Progress, Opportunities, and Challenges. Advanced Optical Materials, 2018, 6, 1800059.	3.6	135
58	Superior mechanical performance of highly porous, anisotropic nanocelluloseâ€“montmorillonite aerogels prepared by freeze casting. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 37, 88-99.	1.5	131
59	Effect of voids on failure mechanisms in RTM laminates. Composites Science and Technology, 1995, 53, 241-249.	3.8	130
60	High performance epoxy-layered silicate nanocomposites. Polymer Engineering and Science, 2002, 42, 1815-1826.	1.5	130
61	Eco-Friendly Cellulose Nanofibrils Designed by Nature: Effects from Preserving Native State. ACS Nano, 2020, 14, 724-735.	7.3	130
62	Nanocomposites of bacterial cellulose nanofibers and chitin nanocrystals: fabrication, characterization and bactericidal activity. Green Chemistry, 2013, 15, 3404.	4.6	129
63	Cellulose nanofibers enable paraffin encapsulation and the formation of stable thermal regulation nanocomposites. Nano Energy, 2017, 34, 541-548.	8.2	128
64	Biocomposites from Natural Rubber: Synergistic Effects of Functionalized Cellulose Nanocrystals as Both Reinforcing and Cross-Linking Agents via Free-Radical Thiolâ€“ene Chemistry. ACS Applied Materials & Interfaces, 2015, 7, 16303-16310.	4.0	124
65	Towards centimeter thick transparent wood through interface manipulation. Journal of Materials Chemistry A, 2018, 6, 1094-1101.	5.2	121
66	Cellulose nanocrystals/polyurethane nanocomposites. Study from the viewpoint of microphase separated structure. Carbohydrate Polymers, 2013, 92, 751-757.	5.1	119
67	Lignin-Based Epoxy Resins: Unravelling the Relationship between Structure and Material Properties. Biomacromolecules, 2020, 21, 1920-1928.	2.6	118
68	Effect of light power density variations on bulk curing properties of dental composites. Journal of Dentistry, 2003, 31, 189-196.	1.7	116
69	Luminescent Transparent Wood. Advanced Optical Materials, 2017, 5, 1600834.	3.6	116
70	Transparent Wood Smart Windows: Polymer Electrochromic Devices Based on Poly(3,4â€Ethylenedioxythiophene):Poly(Styrene Sulfonate) Electrodes. ChemSusChem, 2018, 11, 854-863.	3.6	115
71	Oriented Clay Nanopaper from Biobased Componentsâ€"Mechanisms for Superior Fire Protection Properties. ACS Applied Materials & Interfaces, 2015, 7, 5847-5856.	4.0	108
72	Preparation and evaluation of high-lignin content cellulose nanofibrils from eucalyptus pulp. Cellulose, 2018, 25, 3121-3133.	2.4	108

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73	Cellulose nanofibers decorated with magnetic nanoparticles â€“ synthesis, structure and use in magnetized high toughness membranes for a prototype loudspeaker. Journal of Materials Chemistry C, 2013, 1, 7963.	2.7	106
74	Effects of a composite-like stress state on the fracture of epoxies. Composites Science and Technology, 1995, 53, 27-37.	3.8	104
75	Clay nanopaper composites of nacre-like structure based on montmorrilonite and cellulose nanofibersâ€"Improvements due to chitosan addition. Carbohydrate Polymers, 2012, 87, 53-60.	5.1	103
76	Synthesis of amine-cured, epoxy-layered silicate nanocomposites: The influence of the silicate surface modification on the properties. Journal of Applied Polymer Science, 2002, 86, 2643-2652.	1.3	101
77	Selfâ€Densification of Highly Mesoporous Wood Structure into a Strong and Transparent Film. Advanced Materials, 2020, 32, e2003653.	11.1	99
78	Bio-inspired functional wood-based materials â€“ hybrids and replicates. International Materials Reviews, 2015, 60, 431-450.	9.4	98
79	Polyamide 6-clay nanocomposites/polypropylene-grafted-maleic anhydride alloys. Polymer, 2001, 42, 8235-8239.	1.8	97
80	Towards tailored hierarchical structures in cellulose nanocomposite biofoams prepared by freezing/freeze-drying. Journal of Materials Chemistry, 2010, 20, 6646.	6.7	97
81	Tough nanopaper structures based on cellulose nanofibers and carbon nanotubes. Composites Science and Technology, 2013, 87, 103-110.	3.8	94
82	High-Strength Nanocelluloseâ€“Talc Hybrid Barrier Films. ACS Applied Materials & Interfaces, 2013, 5, 13412-13418.	4.0	94
83	Fatigue mechanisms in unidirectional glass-fibre-reinforced polypropylene. Composites Science and Technology, 1999, 59, 759-768.	3.8	93
84	Bioinspired Interface Engineering for Moisture Resistance in Nacre-Mimetic Cellulose Nanofibrils/Clay Nanocomposites. ACS Applied Materials & Interfaces, 2017, 9, 20169-20178.	4.0	93
85	Isocyanate-rich cellulose nanocrystals and their selective insertion in elastomeric polyurethane. Composites Science and Technology, 2011, 71, 1953-1960.	3.8	91
86	Transparent plywood as a load-bearing and luminescent biocomposite. Composites Science and Technology, 2018, 164, 296-303.	3.8	90
87	Nematic structuring of transparent and multifunctional nanocellulose papers. Nanoscale Horizons, 2018, 3, 28-34.	4.1	89
88	Optically Transparent Wood Substrate for Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2019, 7, 6061-6067.	3.2	89
89	Ultrastructure and Mechanical Properties of Populus Wood with Reduced Lignin Content Caused by Transgenic Down-Regulation of Cinnamate 4-Hydroxylase. Biomacromolecules, 2010, 11, 2359-2365.	2.6	87
90	Stretchable and Strong Cellulose Nanopaper Structures Based on Polymer-Coated Nanofiber Networks: An Alternative to Nonwoven Porous Membranes from Electrospinning. Biomacromolecules, 2012, 13, 3661-3667.	2.6	87

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91	Lasing from Organic Dye Molecules Embedded in Transparent Wood. Advanced Optical Materials, 2017, 5, 1700057.	3.6	87
92	An Unusual Crystallization Behavior in Polyamide 6/Montmorillonite Nanocomposites. Macromolecular Rapid Communications, 2001, 22, 1438-1440.	2.0	86
93	High-Strength Nanocomposite Aerogels of Ternary Composition: Poly(vinyl alcohol), Clay, and Cellulose Nanofibrils. ACS Applied Materials & Interfaces, 2017, 9, 6453-6461.	4.0	86
94	Transparent wood for functional and structural applications. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170182.	1.6	85
95	Ductile All-Cellulose Nanocomposite Films Fabricated from Coreâ€"Shell Structured Cellulose Nanofibrils. Biomacromolecules, 2014, 15, 2218-2223.	2.6	84
96	Nanostructured membranes based on native chitin nanofibers prepared by mild process. Carbohydrate Polymers, 2014, 112, 255-263.	5.1	84
97	Nanostructured biocomposites based on unsaturated polyester resin and a cellulose nanofiber network. Composites Science and Technology, 2015, 117, 298-306.	3.8	84
98	Nanostructured biocomposites based on bacterial cellulosic nanofibers compartmentalized by a soft hydroxyethylcellulose matrix coating. Soft Matter, 2009, 5, 4124.	1.2	83
99	Investigation on Unusual Crystallization Behavior in Polyamide 6/Montmorillonite Nanocomposites. Macromolecular Materials and Engineering, 2002, 287, 515-522.	1.7	81
100	Cellulose Nanocomposite Biopolymer Foamâ€"Hierarchical Structure Effects on Energy Absorption. ACS Applied Materials & Interfaces, 2011, 3, 1411-1417.	4.0	80
101	Clay nanopaper as multifunctional brick and mortar fire protection coatingâ€"Wood case study. Materials and Design, 2016, 93, 357-363.	3.3	80
102	Transverse single-fibre test for interfacial debonding in composites: 1. Experimental observations. Composites Part A: Applied Science and Manufacturing, 1997, 28, 309-315.	3.8	79
103	A Coarse-Grained Model for Molecular Dynamics Simulations of Native Cellulose. Journal of Chemical Theory and Computation, 2011, 7, 753-760.	2.3	79
104	Colloidal Ionic Assembly between Anionic Native Cellulose Nanofibrils and Cationic Block Copolymer Micelles into Biomimetic Nanocomposites. Biomacromolecules, 2011, 12, 2074-2081.	2.6	78
105	Hard and Transparent Films Formed by Nanocelluloseâ€"TiO2 Nanoparticle Hybrids. PLoS ONE, 2012, 7, e45828.	1.1	78
106	High-Performance and Moisture-Stable Celluloseâ€"Starch Nanocomposites Based on Bioinspired Coreâ€"Shell Nanofibers. Biomacromolecules, 2015, 16, 904-912.	2.6	78
107	Transverse single-fibre test for interfacial debonding in composites: 2. Modelling. Composites Part A: Applied Science and Manufacturing, 1997, 28, 317-326.	3.8	76
108	Fire-retardant and ductile clay nanopaper biocomposites based on montmorrilonite in matrix of cellulose nanofibers and carboxymethyl cellulose. European Polymer Journal, 2013, 49, 940-949.	2.6	76

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109	Cellulose nanofibrils improve the properties of all-cellulose composites by the nano-reinforcement mechanism and nanofibril-induced crystallization. Nanoscale, 2015, 7, 17957-17963.	2.8	76
110	Effects of Cooling Rate on the Crystallinity and Mechanical Properties of Thermoplastic Composites. Journal of Reinforced Plastics and Composites, 1987, 6, 2-12.	1.6	75
111	Holocellulose Nanofibers of High Molar Mass and Small Diameter for High-Strength Nanopaper. Biomacromolecules, 2015, 16, 2427-2435.	2.6	75
112	Dynamics of Celluloseâ˜'Water Interfaces:â€‰ NMR Spinâ˜'Lattice Relaxation Times Calculated from Atomistic Computer Simulations. Journal of Physical Chemistry B, 2008, 112, 2590-2595.	1.2	74
113	Current international research into cellulose as a functional nanomaterial for advanced applications. Journal of Materials Science, 2022, 57, 5697-5767.	1.7	73
114	Effects of fiber and interphase on matrix-initiated transverse failure in polymer composites. Composites Science and Technology, 1996, 56, 657-665.	3.8	72
115	Thickness Dependence of Optical Transmittance of Transparent Wood: Chemical Modification Effects. ACS Applied Materials & Interfaces, 2019, 11, 35451-35457.	4.0	72
116	High Performance, Fully Bioâ€Based, and Optically Transparent Wood Biocomposites. Advanced Science, 2021, 8, 2100559.	5.6	72
117	Multifunctional Nanoclay Hybrids of High Toughness, Thermal, and Barrier Performances. ACS Applied Materials & Interfaces, 2013, 5, 7613-7620.	4.0	71
118	Cellulose Nanofiber/Nanocrystal Reinforced Capsules: A Fast and Facile Approach Toward Assembly of Liquid-Core Capsules with High Mechanical Stability. Biomacromolecules, 2014, 15, 1852-1859.	2.6	71
119	Lytic polysaccharide monooxygenase (LPMO) mediated production of ultra-fine cellulose nanofibres from delignified softwood fibres. Green Chemistry, 2019, 21, 5924-5933.	4.6	69
120	Bioinspired and Highly Oriented Clay Nanocomposites with a Xyloglucan Biopolymer Matrix: Extending the Range of Mechanical and Barrier Properties. Biomacromolecules, 2013, 14, 84-91.	2.6	68
121	Highly ductile fibres and sheets by core-shell structuring of the cellulose nanofibrils. Cellulose, 2014, 21, 323-333.	2.4	68
122	Topochemical acetylation of cellulose nanopaper structures for biocomposites: mechanisms for reduced water vapour sorption. Cellulose, 2014, 21, 2773-2787.	2.4	67
123	Deformation of cellulose nanocrystals: entropy, internal energy and temperature dependence. Cellulose, 2012, 19, 1821-1836.	2.4	64
124	BIOREFINERY: Nanofibrillated cellulose for enhancement of strength in high-density paper structures. Nordic Pulp and Paper Research Journal, 2013, 28, 182-189.	0.3	63
125	Nanostructurally Controlled Hydrogel Based on Smallâ€Diameter Native Chitin Nanofibers: Preparation, Structure, and Properties. ChemSusChem, 2016, 9, 989-995.	3.6	63
126	Toward Semistructural Cellulose Nanocomposites: The Need for Scalable Processing and Interface Tailoring. Biomacromolecules, 2018, 19, 2341-2350.	2.6	63

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127	Preserving Cellulose Structure: Delignified Wood Fibers for Paper Structures of High Strength and Transparency. Biomacromolecules, 2018, 19, 3020-3029.	2.6	59
128	Mechanical properties of transparent high strength biocomposites from delignified wood veneer. Composites Part A: Applied Science and Manufacturing, 2020, 133, 105853.	3.8	59
129	Characterization of wellâ€defined poly(ethylene glycol) hydrogels prepared by thiolâ€ene chemistry. Journal of Polymer Science Part A, 2011, 49, 4044-4054.	2.5	58
130	Failure mechanisms in polypropylene with glass beads. Polymer Composites, 1997, 18, 1-8.	2.3	57
131	State of Degradation in Archeological Oak from the 17th Century <i>Vasa</i> Ship: Substantial Strength Loss Correlates with Reduction in (Holo)Cellulose Molecular Weight. Biomacromolecules, 2012, 13, 2521-2527.	2.6	57
132	Estimating the Strength of Single Chitin Nanofibrils via Sonication-Induced Fragmentation. Biomacromolecules, 2017, 18, 4405-4410.	2.6	56
133	A Model for Prediction of the Transverse Cracking Strain in Cross-Ply Laminates. Journal of Reinforced Plastics and Composites, 1992, 11, 708-728.	1.6	55
134	A non-solvent approach for high-stiffness all-cellulose biocomposites based on pure wood cellulose. Composites Science and Technology, 2010, 70, 1704-1712.	3.8	55
135	Strong Surface Treatment Effects on Reinforcement Efficiency in Biocomposites Based on Cellulose Nanocrystals in Poly(vinyl acetate) Matrix. Biomacromolecules, 2015, 16, 3916-3924.	2.6	54
136	Electron-Beam-Initiated Polymerization of Poly(ethylene glycol)-Based Wood Impregnants. ACS Applied Materials & Interfaces, 2010, 2, 3352-3362.	4.0	53
137	A multinuclear magnetic resonance imaging (MRI) study of wood with adsorbed water: Estimating bound water concentration and local wood density. Holzforschung, 2011, 65, 103-107.	0.9	52
138	Surface modification of cellulose nanocrystals by grafting with poly(lactic acid). Polymer International, 2014, 63, 1056-1062.	1.6	52
139	Hierarchical wood cellulose fiber/epoxy biocomposites â€" Materials design of fiber porosity and nanostructure. Composites Part A: Applied Science and Manufacturing, 2015, 74, 60-68.	3.8	52
140	High-Density Molded Cellulose Fibers and Transparent Biocomposites Based on Oriented Holocellulose. ACS Applied Materials & Interfaces, 2019, 11, 10310-10319.	4.0	52
141	Structural and Ecofriendly Holocellulose Materials from Wood: Microscale Fibers and Nanoscale Fibrils. Advanced Materials, 2021, 33, e2001118.	11.1	52
142	Tamarind seed xyloglucan â€" a thermostable high-performance biopolymer from non-food feedstock. Journal of Materials Chemistry, 2010, 20, 4321.	6.7	50
143	Arabinoxylan/nanofibrillated cellulose composite films. Journal of Materials Science, 2012, 47, 6724-6732.	1.7	50
144	In situ polymerization and characterization of elastomeric polyurethane-cellulose nanocrystal nanocomposites. Cell response evaluation. Cellulose, 2013, 20, 1819-1828.	2.4	50

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145	Nacre-Mimetic Clay/Xyloglucan Bionanocomposites: A Chemical Modification Route for Hygromechanical Performance at High Humidity. Biomacromolecules, 2013, 14, 3842-3849.	2.6	49
146	Nanostructured biocomposite films of high toughness based on native chitin nanofibers and chitosan. Frontiers in Chemistry, 2014, 2, 99.	1.8	49
147	Deformation and fracture of glass-mat-reinforced polypropylene. Composites Science and Technology, 1992, 43, 269-281.	3.8	47
148	Reversible Dual-Stimuli-Responsive Chromic Transparent Wood Biocomposites for Smart Window Applications. ACS Applied Materials & Interfaces, 2021, 13, 3270-3277.	4.0	47
149	Nanocellulose films with multiple functional nanoparticles in confined spatial distribution. Nanoscale Horizons, 2019, 4, 634-641.	4.1	46
150	Interface tailoring by a versatile functionalization platform for nanostructured wood biocomposites. Green Chemistry, 2020, 22, 8012-8023.	4.6	45
151	Polyamide 6/clay nanocomposites using a cointercalation organophilic clay via melt compounding. Journal of Applied Polymer Science, 2003, 88, 953-958.	1.3	44
152	Nanocelluloseâ€"Zeolite Composite Films for Odor Elimination. ACS Applied Materials & Interfaces, 2015, 7, 14254-14262.	4.0	44
153	Coreâ€"shell cellulose nanofibers for biocomposites â€" Nanostructural effects in hydrated state. Carbohydrate Polymers, 2015, 125, 92-102.	5.1	44
154	Low-Birefringent and Highly Tough Nanocellulose-Reinforced Cellulose Triacetate. ACS Applied Materials & Interfaces, 2015, 7, 11041-11046.	4.0	44
155	Strong and Tough Chitin Film from Î±-Chitin Nanofibers Prepared by High Pressure Homogenization and Chitosan Addition. ACS Sustainable Chemistry and Engineering, 2019, 7, 1692-1697.	3.2	44
156	Towards improved understanding of PEG-impregnated waterlogged archaeological wood: A model study on recent oak. Holzforschung, 2010, 64, .	0.9	43
157	The transparent crab: preparation and nanostructural implications for bioinspired optically transparent nanocomposites. Soft Matter, 2012, 8, 1369-1373.	1.2	43
158	Transparent Wood Biocomposites by Fast UV-Curing for Reduced Light-Scattering through Wood/Thiolâ€"ene Interface Design. ACS Applied Materials & Interfaces, 2020, 12, 46914-46922.	4.0	43
159	Novel nanocomposite concept based on cross-linking of hyperbranched polymers in reactive cellulose nanopaper templates. Composites Science and Technology, 2011, 71, 13-17.	3.8	41
160	Investigation of the graft length impact on the interfacial toughness in a cellulose/poly(Îµ-caprolactone) bilayer laminate. Composites Science and Technology, 2011, 71, 9-12.	3.8	41
161	Polylactide latex/nanofibrillated cellulose bionanocomposites of high nanofibrillated cellulose content and nanopaper network structure prepared by a papermaking route. Journal of Applied Polymer Science, 2012, 125, 2460-2466.	1.3	41
162	Application of bridging-law concepts to short-fibre compositesPart 1: DCB test procedures for bridging law and fracture energy. Composites Science and Technology, 2000, 60, 871-883.	3.8	40

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163	Facile Preparation Route for Nanostructured Composites: Surface-Initiated Ring-Opening Polymerization of Îµ-Caprolactone from High-Surface-Area Nanopaper. ACS Applied Materials & Interfaces, 2012, 4, 3191-3198.	4.0	40
164	Comparison of fracture properties of cellulose nanopaper, printing paper and buckypaper. Journal of Materials Science, 2017, 52, 9508-9519.	1.7	40
165	Molecular modeling of interfaces between cellulose crystals and surrounding molecules: Effects of caprolactone surface grafting. European Polymer Journal, 2008, 44, 3662-3669.	2.6	39
166	Force Pulling of Single Cellulose Chains at the Crystalline Celluloseâ˘'Liquid Interface: A Molecular Dynamics Study. Langmuir, 2009, 25, 4635-4642.	1.6	39
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