Lars WÃ¥gberg

List of Publications by Year
in descending order

267 papers	15,626 citations	16451 64 h-index	22832 112 g-index
273 all docs	273 docs citations	273 times ranked	12504 citing authors

#	Article	IF	Citations
1	The Build-Up of Polyelectrolyte Multilayers of Microfibrillated Cellulose and Cationic Polyelectrolytes. Langmuir, 2008, 24, 784-795.	3.5	742
2	Developing fibrillated cellulose as a sustainable technological material. Nature, 2021, 590, 47-56.	27.8	711
3	Transparent and conductive paper from nanocellulose fibers. Energy and Environmental Science, 2013, 6, 513-518.	30.8	431
4	Hydrodynamic alignment and assembly of nanofibrils resulting in strong cellulose filaments. Nature Communications, 2014, 5, 4018.	12.8	402
5	Multiscale Control of Nanocellulose Assembly: Transferring Remarkable Nanoscale Fibril Mechanics to Macroscale Fibers. ACS Nano, 2018, 12, 6378-6388.	14.6	359
6	Anisotropic, lightweight, strong, and super thermally insulating nanowood with naturally aligned nanocellulose. Science Advances, 2018, 4, eaar3724.	10.3	336
7	Ultra porous nanocellulose aerogels as separation medium for mixtures of oil/water liquids. Cellulose, 2012, 19, 401-410.	4.9	330
8	Highly Conducting, Strong Nanocomposites Based on Nanocellulose-Assisted Aqueous Dispersions of Single-Wall Carbon Nanotubes. ACS Nano, 2014, 8, 2467-2476.	14.6	325
9	Nanoscale Cellulose Films with Different Crystallinities and Mesostructuresâ€"Their Surface Properties and Interaction with Water. Langmuir, 2009, 25, 7675-7685.	3.5	321
10	Aerogels from nanofibrillated cellulose with tunable oleophobicity. Soft Matter, 2010, 6, 3298.	2.7	277
11	Phosphorylated Cellulose Nanofibrils: A Renewable Nanomaterial for the Preparation of Intrinsically Flame-Retardant Materials. Biomacromolecules, 2015, 16, 3399-3410.	5.4	267
12	Colloidal Stability of Aqueous Nanofibrillated Cellulose Dispersions. Langmuir, 2011, 27, 11332-11338.	3.5	265
13	Multifunctional Nanocomposites with High Strength and Capacitance Using 2D MXene and 1D Nanocellulose. Advanced Materials, 2019, 31, e1902977.	21.0	253
14	Self-assembled three-dimensional and compressible interdigitated thin-film supercapacitors and batteries. Nature Communications, 2015, 6, 7259.	12.8	246
15	Understanding the Dispersive Action of Nanocellulose for Carbon Nanomaterials. Nano Letters, 2017, 17, 1439-1447.	9.1	219
16	Nanostructured paper for flexible energy and electronic devices. MRS Bulletin, 2013, 38, 320-325.	3.5	199
17	Lightweight and Strong Cellulose Materials Made from Aqueous Foams Stabilized by Nanofibrillated Cellulose. Biomacromolecules, 2013, 14, 503-511.	5.4	196
18	Nanocellulose Aerogels Functionalized by Rapid Layerâ€byâ€Layer Assembly for High Charge Storage and Beyond. Angewandte Chemie - International Edition, 2013, 52, 12038-12042.	13.8	196

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19	An Organic Mixed Ionâ€“Electron Conductor for Power Electronics. Advanced Science, 2016, 3, 1500305.	11.2	188
20	Visco-elastic and adhesive properties of adsorbed polyelectrolyte multilayers determined in situ with QCM-D and AFM measurements. Journal of Colloid and Interface Science, 2005, 292, 29-37.	9.4	162
21	Cellulose and the role of hydrogen bonds: not in charge of everything. Cellulose, 2022, 29, 1-23.	4.9	158
22	Thermoelectric Polymers and their Elastic Aerogels. Advanced Materials, 2016, 28, 4556-4562.	21.0	157
23	Silicon-conductive nanopaper for Li-ion batteries. Nano Energy, 2013, 2, 138-145.	16.0	155
24	Self-Organized Films from Cellulose I Nanofibrils Using the Layer-by-Layer Technique. Biomacromolecules, 2010, 11, 872-882.	5.4	142
25	Transparent Nanocellulosic Multilayer Thin Films on Polylactic Acid with Tunable Gas Barrier Properties. ACS Applied Materials & Interfaces, 2013, 5, 7352-7359.	8.0	137
26	On the charge stoichiometry upon adsorption of a cationic polyelectrolyte on cellulosic materials. Colloids and Surfaces, 1987, 27, 163-173.	0.9	133
27	Direct Measurement of Attractive van der Waals' Forces between Regenerated Cellulose Surfaces in an Aqueous Environment. Journal of the American Chemical Society, 2004, 126, 13930-13931.	13.7	120
28	Polyelectrolyte adsorption onto cellulose fibres â€“ A review. Nordic Pulp and Paper Research Journal, 2000, 15, 586-597.	0.7	119
29	Aggregation of Lignin Derivatives under Alkaline Conditions. Kinetics and Aggregate Structure. Langmuir, 2002, 18, 2859-2865.	3.5	113
30	Buildup of Polyelectrolyte Multilayers of Polyethyleneimine and Microfibrillated Cellulose Studied by in Situ Dual-Polarization Interferometry and Quartz Crystal Microbalance with Dissipation. Langmuir, 2008, 24, 2509-2518.	3.5	113
31	On the charge stoichiometry upon adsorption of a cationic polyelectrolyte on cellulosic materials. Colloids and Surfaces, 1987, 27, 163-173.	0.9	102
32	Superior Flame-Resistant Cellulose Nanofibril Aerogels Modified with Hybrid Layer-by-Layer Coatings. ACS Applied Materials & Interfaces, 2017, 9, 29082-29092.	8.0	99
33	Adsorption and flocculation behavior of cationic polyacrylamide and colloidal silica. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2003, 219, 161-172.	4.7	98
34	Adhesive Layer-by-Layer Films of Carboxymethylated Cellulose Nanofibrilâ€“Dopamine Covalent Bioconjugates Inspired by Marine Mussel Threads. ACS Nano, 2012, 6, 4731-4739.	14.6	96
35	The Physical Action of Cellulases Revealed by a Quartz Crystal Microbalance Study Using Ultrathin Cellulose Films and Pure Cellulases. Biomacromolecules, 2008, 9, 249-254.	5.4	94
36	Generation of superhydrophobic paper surfaces by a rapidly expanding supercritical carbon dioxideâ€“alkyl ketene dimer solution. Journal of Supercritical Fluids, 2009, 49, 117-124.	3.2	92

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37	Flame-Retardant Paper from Wood Fibers Functionalized via Layer-by-Layer Assembly. ACS Applied Materials & Interfaces, 2015, 7, 23750-23759.	8.0	92
38	Ambientâ€Dried, 3Dâ€Printable and Electrically Conducting Cellulose Nanofiber Aerogels by Inclusion of Functional Polymers. Advanced Functional Materials, 2020, 30, 1909383.	14.9	92
39	Polyelectrolytes adsorbed on the surface of cellulosic materials. Journal of Colloid and Interface Science, 1986, 111, 537-543.	9.4	90
40	Kinetics of Polyelectrolyte Adsorption on Cellulosic Fibers. Langmuir, 2001, 17, 1096-1103.	3.5	90
41	Formation of Colloidal Nanocellulose Glasses and Gels. Langmuir, 2017, 33, 9772-9780.	3.5	89
42	Adsorption of cationic polyacrylamides onto monodisperse polystyrene latices and cellulose fiber: Effect of molecular weight and charge density of cationic polyacrylamides. Journal of Colloid and Interface Science, 1990, 134, 219-228.	9.4	87
43	All-natural and highly flame-resistant freeze-cast foams based on phosphorylated cellulose nanofibrils. Nanoscale, 2018, 10, 4085-4095.	5.6	87
44	Polyelectrolyte complexes for surface modification of wood fibres. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2003, 218, 137-149.	4.7	86
45	The influence on paper strength properties when building multilayers of weak polyelectrolytes onto wood fibres. Journal of Colloid and Interface Science, 2005, 292, 38-45.	9.4	86
46	Strong, Water-Durable, and Wet-Resilient Cellulose Nanofibril-Stabilized Foams from Oven Drying. ACS Applied Materials & Interfaces, 2016, 8, 11682-11689.	8.0	86
47	Cellulose Thin Films:Â Degree of Cellulose Ordering and Its Influence on Adhesion. Biomacromolecules, 2007, 8, 912-919.	5.4	85
48	Radicalâ€Based Synthesis and Modification of Amino Acids. Angewandte Chemie - International Edition, 2021, 60, 1098-1115.	13.8	85
49	Ductile All-Cellulose Nanocomposite Films Fabricated from Coreâ€"Shell Structured Cellulose Nanofibrils. Biomacromolecules, 2014, 15, 2218-2223.	5.4	84
50	A physical cross-linking process of cellulose nanofibril gels with shear-controlled fibril orientation. Soft Matter, 2013, 9, 1852-1863.	2.7	81
51	Design of Highly Oleophobic Cellulose Surfaces from Structured Silicon Templates. ACS Applied Materials & Interfaces, 2009, 1, 2443-2452.	8.0	80
52	Friction and forces between cellulose model surfaces: A comparison. Journal of Colloid and Interface Science, 2006, 303, 117-123.	9.4	79
53	Mechanisms Behind the Stabilizing Action of Cellulose Nanofibrils in Wet-Stable Cellulose Foams. Biomacromolecules, 2015, 16, 822-831.	5.4	77
54	Two-Dimensional Aggregation and Semidilute Ordering in Cellulose Nanocrystals. Langmuir, 2016, 32, 442-450.	3.5	76

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55	Supramolecular double networks of cellulose nanofibrils and algal polysaccharides with excellent wet mechanical properties. Green Chemistry, 2018, 20, 2558-2570.	9.0	76
56	Aggregation of kraft lignin derivatives under conditions relevant to the process, part I: phase behaviour. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2001, 194, 85-96.	4.7	74
57	Determination of Youngâ€™s Modulus for Nanofibrillated Cellulose Multilayer Thin Films Using Buckling Mechanics. Biomacromolecules, 2011, 12, 961-969.	5.4	74
58	Flexible nano-paper-based positive electrodes for Li-ion batteriesâ€"Preparation process and properties. Nano Energy, 2013, 2, 794-800.	16.0	73
59	The Use of Layerâ€byâ€Layer Selfâ€Assembly and Nanocellulose to Prepare Advanced Functional Materials. Advanced Materials, 2021, 33, e2001474.	21.0	71
60	Swelling of Model Films of Cellulose Having Different Charge Densities and Comparison to the Swelling Behavior of Corresponding Fibers. Langmuir, 2003, 19, 7895-7903.	3.5	68
61	The effect of superhydrophobic wetting state on corrosion protection â€" The AKD example. Journal of Colloid and Interface Science, 2013, 412, 56-64.	9.4	68
62	Highly ductile fibres and sheets by core-shell structuring of the cellulose nanofibrils. Cellulose, 2014, 21, 323-333.	4.9	68
63	Adsorption of Xyloglucan onto Cellulose Surfaces of Different Morphologies: An Entropy-Driven Process. Biomacromolecules, 2016, 17, 2801-2811.	5.4	68
64	Properties of superhydrophobic paper treated with rapid expansion of supercritical CO2 containing a crystallizing wax. Cellulose, 2010, 17, 187-198.	4.9	67
65	Surface Forces Measurements of Spin-Coated Cellulose Thin Films with Different Crystallinity. Langmuir, 2006, 22, 3154-3160.	3.5	66
66	Surface Modification of Wood Fibers Using the Polyelectrolyte Multilayer Technique:Â Effects on Fiber Joint and Paper Strength Properties. Industrial & Engineering Chemistry Research, 2006, 45, 5279-5286.	3.7	64
67	On the mechanism behind freezing-induced chemical crosslinking in ice-templated cellulose nanofibril aerogels. Journal of Materials Chemistry A, 2018, 6, 19371-19380.	10.3	63
68	Morphology of Modified Regenerated Model Cellulose II Surfaces Studied by Atomic Force Microscopy:Â Effect of Carboxymethylation and Heat Treatment. Biomacromolecules, 2005, 6, 1586-1591.	5.4	62
69	Assembly of Debranched Xylan from Solution and on Nanocellulosic Surfaces. Biomacromolecules, 2014, 15, 924-930.	5.4	62
70	Modification of cellulose model surfaces by cationic polymer latexes prepared by RAFT-mediated surfactant-free emulsion polymerization. Polymer Chemistry, 2014, 5, 6076-6086.	3.9	62
71	Solid cellulose nanofiber based foams â€" Towards facile design of sustained drug delivery systems. Journal of Controlled Release, 2016, 244, 74-82.	9.9	62
72	Water Drop Friction on Superhydrophobic Surfaces. Langmuir, 2013, 29, 9079-9089.	3.5	61

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73	Diffusion of Cationic Polyelectrolytes into Cellulosic Fibers. Langmuir, 2008, 24, 10797-10806.	3.5	59
74	Kinetics of adsorpton and ion-exchange rections during adsorption of cationic polyelectrolytes onto cellulosic fibers. Journal of Colloid and Interface Science, 1988, 123, 287-295.	9.4	57
75	Adsorbed layer structure of a weak polyelectrolyte studied by colloidal probe microscopy and QCM-D as a function of pH and ionic strength. Physical Chemistry Chemical Physics, 2004, 6, 2379-2386.	2.8	56
76	The influence of periodate oxidation on the moisture sorptivity and dimensional stability of paper. Cellulose, 2008, 15, 837-847.	4.9	56
77	An extended model for the estimation of flocculation efficiency factors in multicomponent flocculant systems. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1996, 113, 25-38.	4.7	55
78	Polyelectrolyte complexes for surface modification of wood fibres. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2003, 213, 15-25.	4.7	54
79	The porous structure of pulp fibres with different yields and its influence on paper strength. Cellulose, 2003, 10, 111-123.	4.9	53
80	Preparation of electrically conducting cellulose fibres utilizing polyelectrolyte multilayers of poly(3,4-ethylenedioxythiophene):poly(styrene sulphonate) and poly(allyl amine). European Polymer Journal, 2007, 43, 4075-4091.	5.4	53
81	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.	7.6	52
82	Adhesive Interaction between Polyelectrolyte Multilayers of Polyallylamine Hydrochloride and Polyacrylic Acid Studied Using Atomic Force Microscopy and Surface Force Apparatus. Langmuir, 2009, 25, 2887-2894.	3.5	50
83	Assessment of Antibacterial Properties of Polyvinylamine (PVAm) with Different Charge Densities and Hydrophobic Modifications. Biomacromolecules, 2009, 10, 1478-1483.	5.4	50
84	Adsorption of cationic potato starch on cellulosic fibres. Nordic Pulp and Paper Research Journal, 1993, 8, 399-404.	0.7	50
85	Wetting kinetics of oil mixtures on fluorinated model cellulose surfaces. Journal of Colloid and Interface Science, 2008, 317, 556-567.	9.4	49
86	Application of the JKR Method to the Measurement of Adhesion to Langmuirâ€"Blodgett Cellulose Surfaces. Journal of Colloid and Interface Science, 2000, 230, 441-447.	9.4	48
87	Cellulosic nanofibrils from eucalyptus, acacia and pine fibers. Nordic Pulp and Paper Research Journal, 2014, 29, 176-184.	0.7	47
88	Macro- and mesoporous nanocellulose beads for use in energy storage devices. Applied Materials Today, 2016, 5, 246-254.	4.3	47
89	Ionâ€Specific Assembly of Strong, Tough, and Stiff Biofibers. Angewandte Chemie - International Edition, 2019, 58, 18562-18569.	13.8	47
90	Ion-induced assemblies of highly anisotropic nanoparticles are governed by ionâ€"ion correlation and specific ion effects. Nanoscale, 2019, 11, 3514-3520.	5.6	47

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91	Entropy drives the adsorption of xyloglucan to cellulose surfaces â€“ A molecular dynamics study. Journal of Colloid and Interface Science, 2021, 588, 485-493.	9.4	47
92	Hydrolysis of cationic polyacrylamides. Journal of Applied Polymer Science, 1989, 38, 297-304.	2.6	46
93	Thermoresponsive nanocomposites from multilayers of nanofibrillated cellulose and specially designed N-isopropylacrylamide based polymers. Soft Matter, 2010, 6, 342-352.	2.7	46
94	Wettability changes in the formation of polymeric multilayers on cellulose fibres and their influence on wet adhesion. Journal of Colloid and Interface Science, 2007, 314, 1-9.	9.4	45
95	Adsorption Kinetics of Cationic Polyelectrolytes Studied with Stagnation Point Adsorption Reflectometry and Quartz Crystal Microgravimetry. Langmuir, 2008, 24, 7329-7337.	3.5	45
96	Polyelectrolyte Adsorption on Thin Cellulose Films Studied with Reflectometry and Quartz Crystal Microgravimetry with Dissipation. Biomacromolecules, 2009, 10, 134-141.	5.4	45
97	On the mechanism behind wet strength development in papers containing wet strength resins. Nordic Pulp and Paper Research Journal, 1993, 8, 53-58.	0.7	44
98	Design and characterization of cellulose nanofibril-based freestanding films prepared by layer-by-layer deposition technique. Soft Matter, 2011, 7, 3467.	2.7	44
99	Thermo-responsive nanofibrillated cellulose by polyelectrolyte adsorption. European Polymer Journal, 2013, 49, 2689-2696.	5.4	44
100	Super Gas Barrier and Fire Resistance of Nanoplatelet/Nanofibril Multilayer Thin Films. Advanced Materials Interfaces, 2019, 6, 1801424.	3.7	44
101	Adsorption of bilayers and multilayers of cationic and anionic co-polymers of acrylamide on silicon oxide. Journal of Colloid and Interface Science, 2004, 274, 480-488.	9.4	43
102	Chemical modification of cellulose-rich fibres to clarify the influence of the chemical structure on the physical and mechanical properties of cellulose fibres and thereof made sheets. Carbohydrate Polymers, 2018, 182, 1-7.	10.2	43
103	Application of polymeric multilayers of starch onto wood fibres to enhance strength properties of paper. Nordic Pulp and Paper Research Journal, 2005, 20, 270-276.	0.7	41
104	Polyelectrolyte Adsorption on Solid Surfaces: Theoretical Predictions and Experimental Measurements. Langmuir, 2013, 29, 12421-12431.	3.5	41
105	Chemically modified cellulose micro- and nanofibrils as paper-strength additives. Cellulose, 2017, 24, 3883-3899.	4.9	41
106	Macro- and Microstructural Evolution during Drying of Regenerated Cellulose Beads. ACS Nano, 2020, 14, 6774-6784.	14.6	41
107	Treatment of cellulose fibres with polyelectrolytes and wax colloids to create tailored highly hydrophobic fibrous networks. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 414, 415-421.	4.7	40
108	Towards a super-strainable paper using the Layer-by-Layer technique. Carbohydrate Polymers, 2014, 100, 218-224.	10.2	40

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109	Controlling the Organization of PEDOT:PSS on Cellulose Structures. ACS Applied Polymer Materials, 2019, 1, 2342-2351.	4.4	40
110	Formation of polyelectrolyte multilayers on fibres: Influence on wettability and fibre/fibre interaction. Journal of Colloid and Interface Science, 2006, 296, 396-408.	9.4	38
111	Towards optimised size distribution in commercial microfibrillated cellulose: a fractionation approach. Cellulose, 2019, 26, 1565-1575.	4.9	38
112	Hierarchical build-up of bio-based nanofibrous materials with tunable metalâ€"organic framework biofunctionality. Materials Today, 2021, 48, 47-58.	14.2	38
113	Solubility of Softwood Hemicelluloses. Biomacromolecules, 2018, 19, 1245-1255.	5.4	37
114	Synthesis of Unnatural Î±â€Amino Acid Derivatives via Lightâ€Mediated Radical Decarboxylative Processes. Advanced Synthesis and Catalysis, 2020, 362, 2354-2359.	4.3	37
115	Unidirectional Swelling of Dynamic Cellulose Nanofibril Networks: A Platform for Tunable Hydrogels and Aerogels with 3D Shapeability. Biomacromolecules, 2019, 20, 2406-2412.	5.4	36
116	PEDOT:PSS nano-particles in aqueous media: A comparative experimental and molecular dynamics study of particle size, morphology and z-potential. Journal of Colloid and Interface Science, 2021, 584, 57-66.	9.4	36
117	Influence of polyelectrolyte complexes on the strength properties of papers from unbleached kraft pulps with different yields. Nordic Pulp and Paper Research Journal, 2005, 20, 36-42.	0.7	35
118	Influence of fibreâ€"fibre joint properties on the dimensional stability of paper. Cellulose, 2008, 15, 515-525.	4.9	35
119	Adsorption kinetics for cationic polyelectrolytes onto pulp fibers in turbulent flow. Colloids and Surfaces, 1989, 40, 115-124.	0.9	34
120	Influence of Cellulose Charge on Bacteria Adhesion and Viability to PVAm/CNF/PVAm-Modified Cellulose Model Surfaces. Biomacromolecules, 2019, 20, 2075-2083.	5.4	34
121	Smooth Model Surfaces from Lignin Derivatives. II. Adsorption of Polyelectrolytes and PECs Monitored by QCM-D. Langmuir, 2007, 23, 3737-3743.	3.5	33
122	Contact-active antibacterial aerogels from cellulose nanofibrils. Colloids and Surfaces B: Biointerfaces, 2016, 146, 415-422.	5.0	33
123	Insights into the EDC-mediated PEGylation of cellulose nanofibrils and their colloidal stability. Carbohydrate Polymers, 2018, 181, 871-878.	10.2	33
124	The use of stagnation point adsorption reflectometry to study molecular interactions relevant to papermaking chemistry. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1999, 159, 3-15.	4.7	32
125	New insights into the structure of polyelectrolyte complexes. Journal of Colloid and Interface Science, 2007, 312, 237-246.	9.4	31
126	Preparation of dry ultra-porous cellulosic fibres: Characterization and possible initial uses. Carbohydrate Polymers, 2013, 92, 775-783.	10.2	31

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127	Influence of Surface Charge Density and Morphology on the Formation of Polyelectrolyte Multilayers on Smooth Charged Cellulose Surfaces. Langmuir, 2017, 33, 968-979.	3.5	31
128	Ultrastrong and flame-resistant freestanding films from nanocelluloses, self-assembled using a layer-by-layer approach. Applied Materials Today, 2017, 9, 229-239.	4.3	31
129	Tuning the Nanoscale Properties of Phosphorylated Cellulose Nanofibril-Based Thin Films To Achieve Highly Fire-Protecting Coatings for Flammable Solid Materials. ACS Applied Materials & Interfaces, 2018, 10, 32543-32555.	8.0	31
130	The Link Between the Fiber Contact Zone and the Physical Properties of Paper: A Way to Control Paper Properties. Journal of Composite Materials, 2007, 41, 1619-1633.	2.4	30
131	Biointeractive antibacterial fibres using polyelectrolyte multilayer modification. Cellulose, 2012, 19, 1731-1741.	4.9	30
132	A new, robust method for measuring average fibre wall pore sizes in cellulose I rich plant fibre walls. Cellulose, 2013, 20, 623-631.	4.9	30
133	Best Practice for Reporting Wet Mechanical Properties of Nanocellulose-Based Materials. Biomacromolecules, 2020, 21, 2536-2540.	5.4	30
134	Adsorption of Highly Charged Polyelectrolytes onto an Oppositely Charged Porous Substrate. Langmuir, 2008, 24, 7857-7866.	3.5	29
135	Physical Tuning of Cellulose-Polymer Interactions Utilizing Cationic Block Copolymers Based on PCL and Quaternized PDMAEMA. ACS Applied Materials & Interfaces, 2012, 4, 6796-6807.	8.0	29
136	The use of polymeric amines to enhance the mechanical properties of lignocellulosic fibrous networks. Cellulose, 2012, 19, 1437-1447.	4.9	29
137	Adsorption of cationic starch on fibres from mechanical pulps. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1996, 100, 984-993.	0.9	28
138	Surface-initiated ring-opening polymerization from cellulose model surfaces monitored by a Quartz Crystal Microbalance. Soft Matter, 2012, 8, 512-517.	2.7	28
139	Dielectric properties of lignin and glucomannan as determined by spectroscopic ellipsometry and Lifshitz estimates of non-retarded Hamaker constants. Cellulose, 2013, 20, 1639-1648.	4.9	28
140	Wetting of Structured Hydrophobic Surfaces by Water Droplets. Langmuir, 2005, 21, 12235-12243.	3.5	27
141	Polyelectrolyte multilayers on wood fibers: Influence of molecular weight on layer properties and mechanical properties of papers from treated fibers. Journal of Colloid and Interface Science, 2008, 328, 233-242.	9.4	27
142	Exchange of cationic polyacrylamides adsorbed on monodisperse polystyrene latex and cellulose fibers: Effect of molecular weight. Journal of Colloid and Interface Science, 1990, 134, 229-234.	9.4	26
143	Nanocellulose Aerogels Functionalized by Rapid Layerâ€byâ€Layer Assembly for High Charge Storage and Beyond. Angewandte Chemie, 2013, 125, 12260-12264.	2.0	26
144	Explaining the Exceptional Wet Integrity of Transparent Cellulose Nanofibril Films in the Presence of Multivalent Ionsâ€"Suitable Substrates for Biointerfaces. Advanced Materials Interfaces, 2019, 6, 1900333.	3.7	26

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145	Self-Fibrillating Cellulose Fibers: Rapid In Situ Nanofibrillation to Prepare Strong, Transparent, and Gas Barrier Nanopapers. Biomacromolecules, 2020, 21, 1480-1488.	5.4	26
146	Adsorption of Low Charge Density Polyelectrolytes to an Oppositely Charged Porous Substrate. Langmuir, 2008, 24, 6585-6594.	3.5	25
147	Using jet mixing to prepare polyelectrolyte complexes: Complex properties and their interaction with silicon oxide surfaces. Journal of Colloid and Interface Science, 2010, 351, 88-95.	9.4	25
148	Nanometer Smooth, Macroscopic Spherical Cellulose Probes for Contact Adhesion Measurements. ACS Applied Materials & Interfaces, 2014, 6, 20928-20935.	8.0	25
149	Tailoring flame-retardancy and strength of papers via layer-by-layer treatment of cellulose fibers. Cellulose, 2018, 25, 2691-2709.	4.9	25
150	Tailoring of rheological properties and structural polydispersity effects in microfibrillated cellulose suspensions. Cellulose, 2020, 27, 9227-9241.	4.9	25
151	Acetylation and Sugar Composition Influence the (In)Solubility of Plant Î²-Mannans and Their Interaction with Cellulose Surfaces. ACS Sustainable Chemistry and Engineering, 2020, 8, 10027-10040.	6.7	25
152	Polyelectrolyte Multilayers from Cationic and Anionic Starch: Influence of Charge Density and Salt Concentration on the Properties of the Adsorbed Layers. Starch/Staerke, 2010, 62, 102-114.	2.1	24
153	Bacterial-growth inhibiting properties of multilayers formed with modified polyvinylamine. Colloids and Surfaces B: Biointerfaces, 2011, 88, 115-120.	5.0	24
154	Hollow cellulose capsules from CO2 saturated cellulose solutionsâ€"their preparation and characterization. RSC Advances, 2013, 3, 2462.	3.6	24
155	Cross-Linked and Shapeable Porous 3D Substrates from Freeze-Linked Cellulose Nanofibrils. Biomacromolecules, 2019, 20, 728-737.	5.4	24
156	The action of cationic polyelectrolytes used for the fixation of dissolved and colloidal substances. Nordic Pulp and Paper Research Journal, 1991, 6, 127-135.	0.7	23
157	Flocculation of cellulosic fibres following addition of cationic starch. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1995, 105, 199-209.	4.7	23
158	Addition of silica nanoparticles to tailor the mechanical properties of nanofibrillated cellulose thin films. Journal of Colloid and Interface Science, 2011, 363, 566-572.	9.4	23
159	Direct Adhesive Measurements between Wood Biopolymer Model Surfaces. Biomacromolecules, 2012, 13, 3046-3053.	5.4	23
160	Layer by Layer-functionalized rice husk particles: A novel and sustainable solution for particleboard production. Materials Today Communications, 2017, 13, 92-101.	1.9	23
161	The role of surface polymer compability in the formation of fiber/fiber bonds in paper. Nordic Pulp and Paper Research Journal, 2000, 15, 400-406.	0.7	22
162	The use of polyelectrolyte complexes (PEC) as strength additives for different pulps used for production of fine paper. Nordic Pulp and Paper Research Journal, 2007, 22, 210-216.	0.7	21

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163	Adsorption Behavior and Adhesive Properties of Biopolyelectrolyte Multilayers Formed from Cationic and Anionic Starch. Biomacromolecules, 2009, 10, 1768-1776.	5.4	21
164	Interactions of Hydrophobically Modified Polyvinylamines: Adsorption Behavior at Charged Surfaces and the Formation of Polyelectrolyte Multilayers with Polyacrylic Acid. ACS Applied Materials & Interfaces, 2010, 2, 425-433.	8.0	21
165	Contact-active antibacterial multilayers on fibres: a step towards understanding the antibacterial mechanism by increasing theÂfibre charge. Cellulose, 2015, 22, 2023-2034.	4.9	21
166	Layer-by-layer modified low density cellulose fiber networks: A sustainable and fireproof alternative to petroleum based foams. Carbohydrate Polymers, 2020, 230, 115616.	10.2	21
167	Redispersion Strategies for Dried Cellulose Nanofibrils. ACS Sustainable Chemistry and Engineering, 2021, 9, 11003-11010.	6.7	21
168	Investigation of the formation, structure and release characteristics of self-assembled composite films of cellulose nanofibrils and temperature responsive microgels. Soft Matter, 2011, 7, 1369-1377.	2.7	20
169	Synthesis, adsorption and adhesive properties of a cationic amphiphilic block copolymer for use as compatibilizer in composites. European Polymer Journal, 2012, 48, 1195-1204.	5.4	20
170	Structural changes during swelling of highly charged cellulose fibres. Cellulose, 2015, 22, 2943-2953.	4.9	20
171	On the relationship between fibre composition and material properties following periodate oxidation and borohydride reduction of lignocellulosic fibres. Cellulose, 2016, 23, 3495-3510.	4.9	20
172	Effect of Chemical Functionality on the Mechanical and Barrier Performance of Nanocellulose Films. ACS Applied Nano Materials, 2018, 1, 1959-1967.	5.0	20
173	Thermodynamics of the Water-Retaining Properties of Cellulose-Based Networks. Biomacromolecules, 2019, 20, 1603-1612.	5.4	20
174	Synthesis of Î³-Oxo-Î±-amino Acids via Radical Acylation with Carboxylic Acids. Journal of Organic Chemistry, 2021, 86, 8448-8456.	3.2	20
175	Kinetics of polymer-induced flocculation of cellulosic fibers in turbulent flow. Colloids and Surfaces, 1987, 27, 29-42.	0.9	19
176	A new technique for evaluating inkâ€“cellulose interactions: initial studies of the influence of surface energy and surface roughness. Journal of Adhesion Science and Technology, 2005, 19, 783-798.	2.6	19
177	Bacterial adhesion to polyvinylamine-modified nanocellulose films. Colloids and Surfaces B: Biointerfaces, 2017, 151, 224-231.	5.0	19
178	Carbohydrate gel beads as model probes for quantifying non-ionic and ionic contributions behind the swelling of delignified plant fibers. Journal of Colloid and Interface Science, 2018, 519, 119-129.	9.4	19
179	Swelling behaviour of succinylated fibers. Cellulose, 2000, 7, 67-86.	4.9	18
180	Tailoring of fibre/fibre joints in order to avoid the negative impacts of drying on paper properties. Nordic Pulp and Paper Research Journal, 2006, 21, 411-418.	0.7	18

#	Article	IF	Citations
181	Antimicrobial activity of polyelectrolyte multilayer-treated cellulose films 2nd ICC 2007, Tokyo, Japan, October 25â€“29, 2007. Holzforschung, 2009, 63, 33-39.	1.9	18
182	Copperâ€Plated Paper for Highâ€Performance Lithiumâ€Ion Batteries. Small, 2018, 14, e1803313.	10.0	18
183	Novel, Cellulose-Based, Lightweight, Wet-Resilient Materials with Tunable Porosity, Density, and Strength. ACS Sustainable Chemistry and Engineering, 2018, 6, 9951-9957.	6.7	18
184	Interfacial Polymerization of Cellulose Nanocrystal Polyamide Janus Nanocomposites with Controlled Architectures. ACS Macro Letters, 2019, 8, 1334-1340.	4.8	18
185	On the interaction between PEDOT:PSS and cellulose: Adsorption mechanisms and controlling factors. Carbohydrate Polymers, 2021, 260, 117818.	10.2	18
186	Adsorption of polyallylamine to lignocellulosic fibres: effect of adsorption conditions on localisation of adsorbed polyelectrolyte and mechanical properties of resulting paper sheets. Cellulose, 2009, 16, 87-101.	4.9	17
187	Robust and Tailored Wet Adhesion in Biopolymer Thin Films. Biomacromolecules, 2014, 15, 4420-4428.	5.4	17
188	Aligned cellulose nanocrystals and directed nanoscale deposition of colloidal spheres. Cellulose, 2014, 21, 1591-1599.	4.9	17
189	Immunoselective Cellulose Nanospheres: A Versatile Platform for Nanotheranostics. ACS Macro Letters, 2014, 3, 1117-1120.	4.8	17
190	Improved barrier films of cross-linked cellulose nanofibrils: a microscopy study. Green Materials, 2014, 2, 163-168.	2.1	17
191	Rapid Development of Wet Adhesion between Carboxymethylcellulose Modified Cellulose Surfaces Laminated with Polyvinylamine Adhesive. ACS Applied Materials & Interfaces, 2016, 8, 24161-24167.	8.0	17
192	Coaxial Spinning of Oriented Nanocellulose Filaments and Coreâ€“Shell Structures for Interactive Materials and Fiber-Reinforced Composites. ACS Applied Nano Materials, 2020, 3, 10246-10251.	5.0	17
193	The action of cationic polymers in the fixation of dissolved and colloidal substances Part 2. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1995, 104, 169-184.	4.7	16
194	Hyperbranched Polymers as a Fixing Agent for Dissolved and Colloidal Substances on Fiber and SIO2Surfaces. Industrial & Engineering Chemistry Research, 2007, 46, 2212-2219.	3.7	16
195	Mechanosorptive creep in nanocellulose materials. Cellulose, 2012, 19, 809-819.	4.9	16
196	Native and functionalized micrometre-sized cellulose capsules prepared by microfluidic flow focusing. RSC Advances, 2014, 4, 19061-19067.	3.6	16
197	Superhydrophobic polymeric coatings produced by rapid expansion of supercritical solutions combined with electrostatic deposition (RESS-ED). Journal of Supercritical Fluids, 2014, 95, 610-617.	3.2	16
198	Development of a Semicontinuous Spray Process for the Production of Superhydrophobic Coatings from Supercritical Carbon Dioxide Solutions. Industrial & Engineering Chemistry Research, 2015, 54, 1059-1067.	3.7	16

#	Article	IF	Citations
199	Experimental and Theoretical Evaluation of the Solubility/Insolubility of Spruce Xylan (Arabino) Tj ETQq1 1 0.784314 rgBT /Overlock 1	5.4	16
200	Influence of Solubility on the Adsorption of Different Xyloglucan Fractions at Celluloseâ€"Water Interfaces. Biomacromolecules, 2020, 21, 772-782.	5.4	16
201	Title is missing!. Cellulose, 2002, 9, 127-137.	4.9	15
202	Diffusion-induced dimensional changes in papers and fibrillar films: influence of hydrophobicity and fibre-wall cross-linking. Cellulose, 2010, 17, 891-901.	4.9	15
203	Tailoring the mechanical properties of starch-containing layer-by-layer films. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 394, 14-22.	4.7	15
204	The use of model cellulose gel beads to clarify flame-retardant characteristics of layer-by-layer nanocoatings. Carbohydrate Polymers, 2021, 255, 117468.	10.2	15
205	Layerâ€byâ€Layer Assembly of Strong Thin Films with High Lithium Ion Conductance for Batteries and Beyond. Small, 2021, 17, e2100954.	10.0	15
206	Spreading of droplets of different liquids on specially structured papers. Nordic Pulp and Paper Research Journal, 2000, 15, 598-606.	0.7	15
207	Influence of electrostatic interactions on fibre/fibre joint and paper strength. Nordic Pulp and Paper Research Journal, 2004, 19, 440-447.	0.7	15
208	Kinetics of sequential adsorption of polyelectrolyte multilayers on pulp fibres and their effect on paper strength. Nordic Pulp and Paper Research Journal, 2007, 22, 258-266.	0.7	14
209	Towards superhydrophobic coatings made by non-fluorinated polymers sprayed from a supercritical solution. Journal of Supercritical Fluids, 2013, 77, 134-141.	3.2	14
210	Patterning of surfaces with nanosized cellulosic fibrils using microcontact printing and a lift-off technique. Soft Matter, 2008, 4, 1158.	2.7	13
211	New insights into the mechanisms behind the strengthening of lignocellulosic fibrous networks with polyamines. Cellulose, 2014, 21, 3941-3950.	4.9	13
212	Ionâ€Specific Assembly of Strong, Tough, and Stiff Biofibers. Angewandte Chemie, 2019, 131, 18735-18742.	2.0	13
213	Bactericidal surfaces prepared by femtosecond laser patterning and layer-by-layer polyelectrolyte coating. Journal of Colloid and Interface Science, 2020, 575, 286-297.	9.4	13
214	Functional Lignin Nanoparticles with Tunable Size and Surface Properties: Fabrication, Characterization, and Use in Layer-by-Layer Assembly. ACS Applied Materials & Interfaces, 2021, 13, 26308-26317.	8.0	13
215	In Situ Modification of Regenerated Cellulose Beads: Creating All-Cellulose Composites. Industrial & Engineering Chemistry Research, 2020, 59, 2968-2976.	3.7	13
216	New equipment for detection of polymer induced flocculation of cellulosic fibres by using image analysis â€" application to microparticle systems. Chemical Engineering Journal, 2000, 80, 51-63.	12.7	12

#	Article	IF	Citations
217	Self-Assembled Polyester Dendrimer/Cellulose Nanofibril Hydrogels with Extraordinary Antibacterial Activity. Pharmaceutics, 2020, 12, 1139.	4.5	12
218	Layerâ€byâ€Layer Selfâ€Assembled Nanostructured Electrodes for Lithiumâ€Ion Batteries. Small, 2021, 17, e2006434.	10.0	12
219	Formation of multilayers on silica surfaces of a cationic polyelectrolyte and dissolved and colloidal substances originating from mechanical wood pulp-Adsorption and influence on adhesion. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2004, 237, 33-47.	4.7	11
220	Determination of Fibre Pore Structure: Influence of Salt, pH and Conventional Wet Strength Resins. Cellulose, 2005, 12, 253-265.	4.9	11
221	Genetically Engineered Mucoadhesive Spider Silk. Biomacromolecules, 2018, 19, 3268-3279.	5.4	11
222	The effect of crosslinking on ion transport in nanocellulose-based membranes. Carbohydrate Polymers, 2022, 278, 118938.	10.2	11
223	Understanding the Drying Behavior of Regenerated Cellulose Gel Beads: The Effects of Concentration and Nonsolvents. ACS Nano, 2022, 16, 2608-2620.	14.6	11
224	Surface tailoring of cellulose aerogel-like structures with ultrathin coatings using molecular layer-by-layer assembly. Carbohydrate Polymers, 2022, 282, 119098.	10.2	11
225	Kinetics of adsorption and ion-exchange reactions during adsorption of cationic polyelectrolytes onto cellulosic fibers. Colloids and Surfaces, 1988, 31, 119-124.	0.9	10
226	Effect of cationic polyelectrolytes in contact-active antibacterial layer-by-layer functionalization. Holzforschung, 2017, 71, 649-658.	1.9	10
227	Swelling of Cellulose-Based Fibrillar and Polymeric Networks Driven by Ion-Induced Osmotic Pressure. Langmuir, 2020, 36, 12261-12271.	3.5	10
228	Development of mechanical properties of regenerated cellulose beads during drying as investigated by atomic force microscopy. Soft Matter, 2020, 16, 6457-6462.	2.7	10
229	MECHANICAL PULPING: Influence of beating and chemical additives on residual stresses in paper. Nordic Pulp and Paper Research Journal, 2011, 26, 445-451.	0.7	10
230	Theoretical and Experimental Investigations of Polyelectrolyte Adsorption Dependence on Molecular Weight. Langmuir, 2016, 32, 5721-5730.	3.5	9
231	AFM adhesion imaging for the comparison of polyelectrolyte complexes and polyelectrolyte multilayers. Soft Matter, 2012, 8, 8298.	2.7	8
232	Lightweight, Highly Compressible, Noncrystalline Cellulose Capsules. Langmuir, 2014, 30, 7635-7644.	3.5	8
233	Interpenetrated Networks of Nanocellulose and Polyacrylamide with Excellent Mechanical and Absorptive Properties. Macromolecular Materials and Engineering, 2018, 303, 1700594.	3.6	8
234	Structure Development of the Interphase between Drying Cellulose Materials Revealed by In Situ Grazing-Incidence Small-Angle X-ray Scattering. Biomacromolecules, 2021, 22, 4274-4283.	5.4	8

#	ARTICLE	IF	CITATIONS
235	Adsorption of paper strength additives to hardwood fibres with different surface charges and their effect on paper strength. Cellulose, 2022, 29, 2617-2632.	4.9	8
236	Spinning of Stiff and Conductive Filaments from Cellulose Nanofibrils and PEDOT:PSS Nanocomplexes. ACS Applied Polymer Materials, 2022, 4, 4119-4130.	4.4	8
237	Macroscopic cellulose probes for the measurement of polymer grafted surfaces. Cellulose, 2019, 26, 1467-1477.	4.9	7
238	Wet-expandable capsules made from partially modified cellulose. Green Chemistry, 2020, 22, 4581-4592.	9.0	7
239	Polyelectrolyte-Assisted Dispersions of Reduced Graphite Oxide Nanoplates in Water and Their Gas-Barrier Application. ACS Applied Materials & Interfaces, 2021, 13, 43301-43313.	8.0	7
240	Specific ion effects in the adsorption of carboxymethyl cellulose on cellulose: The influence of industrially relevant divalent cations. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 626, 127006.	4.7	7
241	Influence of polymeric additives on short-time creep of paper. Nordic Pulp and Paper Research Journal, 2007, 22, 217-227.	0.7	6
242	Tailoring the chemistry of polyelectrolytes to control their adsorption on cellulosic surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 340, 135-142.	4.7	6
243	Nanometer-Thick Hyaluronic Acid Self-Assemblies with Strong Adhesive Properties. ACS Applied Materials & Interfaces, 2015, 7, 15143-15147.	8.0	6
244	Advanced Characterization of Self-Fibrillating Cellulose Fibers and Their Use in Tunable Filters. ACS Applied Materials & Interfaces, 2021, 13, 32467-32478.	8.0	6
245	Dynamics of moisture interaction with polyelectrolyte multilayers containing nanofibrillated cellulose. Nordic Pulp and Paper Research Journal, 2012, 27, 496-499.	0.7	5
246	Trapping of Water Drops by Line-Shaped Defects on Superhydrophobic Surfaces. Langmuir, 2015, 31, 6367-6374.	3.5	5
247	Layer-by-Layer Assembly of High-Performance Electroactive Composites Using a Multiple Charged Small Molecule. Langmuir, 2019, 35, 10367-10373.	3.5	5
248	Sulfonated Cellulose Membranes Improve the Stability of Aqueous Organic Redox Flow Batteries. Advanced Energy and Sustainability Research, 2022, 3, .	5.8	5
249	Polyelectrolyte Complexes for Tailoring of Wood Fibre Surfaces. Advances in Polymer Science, 2013, , 1-24.	0.8	4
250	Tailoring the effect of antibacterial polyelectrolyte multilayers by choice of cellulosic fiber substrate. Holzforschung, 2013, 67, 573-578.	1.9	4
251	Evaluating Pore Space in Macroporous Ceramics with Waterâ€Based Porosimetry. Journal of the American Ceramic Society, 2013, 96, 1916-1922.	3.8	4
252	Vibrational Sum Frequency Spectroscopy on Polyelectrolyte Multilayers: Effect of Molecular Surface Structure on Macroscopic Wetting Properties. Langmuir, 2015, 31, 4435-4442.	3.5	4

#	Article	IF	Citations
253	Dendritic Polyampholyte-Assisted Formation of Functional Cellulose Nanofibril Materials. Biomacromolecules, 2020, 21, 2856-2863.	5.4	4
254	Fibre surface modifications of market pulp by consecutive treatments with cationic and anionic starch. Nordic Pulp and Paper Research Journal, 2007, 22, 244-248.	0.7	4
255	The role of polymer compatibility in the adhesion between surfaces saturated with modified dextrans. Journal of Colloid and Interface Science, 2007, 310, 312-320.	9.4	3
256	7. On the Mechanisms Behind the Action of Wet Strength and Wet Strength Agents. , 2009, , 185-208.		3
257	Effect of Cross-Linking Fiber Joints on the Tensile and Fracture Behavior of Paper. Industrial & Engineering Chemistry Research, 2010, 49, 6422-6431.	3.7	3
258	Pilot-scale papermaking using Layer-by-Layer treated fibres; comparison between the effects of beating and of sequential addition of polymeric additives. Nordic Pulp and Paper Research Journal, 2016, 31, 308-314.	0.7	3
259	Tunable Adhesion and Interfacial Structure of Layerâ€byâ€Layer Assembled Block coâ€polymer Micelle and Polyelectrolyte Coatings. Advanced Materials Interfaces, 0, , 2200065.	3.7	3
260	Water-resistant hybrid cellulose nanofibril films prepared by charge reversal on gibbsite nanoclays. Carbohydrate Polymers, 2022, 295, 119867.	10.2	3
261	Strong and tuneable wet adhesion with rationally designed layer-by-layer assembled triblock copolymer films. Nanoscale, 2016, 8, 18204-18211.	5.6	2
262	Internal Structure of Isolated Cellulose I Fibril Aggregates in the Water Swollen State. ACS Symposium Series, 2017, , 91-112.	0.5	2
263	The effect of different wear on superhydrophobic wax coatings. Nordic Pulp and Paper Research Journal, 2017, 32, 195-203.	0.7	2
264	Rapidly Prepared Nanocellulose Hybrids as Gas Barrier, Flame Retardant, and Energy Storage Materials. ACS Applied Nano Materials, 0, , .	5.0	2
265	Editorial: green nanocomposites. Green Materials, 2014, 2, 161-162.	2.1	1
266	The Influence of Geometry on Superhydrophobicity. ACS Symposium Series, 2009, , 250-273.	0.5	0
267	Structure and Properties of Layer-by-Layer Films from Combinations of Cellulose Nanofibers, Polyelectrolytes and Colloids. Materials and Energy, 2014, , 57-77.	0.1	0