Henrikki Liimatainen

List of Publications by Citations

113 papers	4,367 citations	38 h-index	63 g-index
119 ext. papers	5,174 ext. citations	7.3 avg, IF	6.12 L-index

#	Paper	IF	Citations
113	Enhancement of the nanofibrillation of wood cellulose through sequential periodate-chlorite oxidation. *Biomacromolecules*, **2012**, 13, 1592-7	6.9	227
112	Periodate oxidation of cellulose at elevated temperatures using metal salts as cellulose activators. *Carbohydrate Polymers*, **2011**, 83, 1293-1297	10.3	178
111	Adsorption of Ni(II), Cu(II) and Cd(II) from aqueous solutions by amino modified nanostructured microfibrillated cellulose. *Cellulose*, **2014**, 21, 1471-1487	5.5	173
110	Coagulation–flocculation treatment of municipal wastewater based on anionized nanocelluloses. *Chemical Engineering Journal*, **2013**, 231, 59-67	14.7	161
109	Deep eutectic solvent system based on choline chloride-urea as a pre-treatment for nanofibrillation of wood cellulose. *Green Chemistry*, **2015**, 17, 3401-3406	10	157
108	Biocomposite cellulose-alginate films: promising packaging materials. *Food Chemistry*, **2014**, 151, 343-51	8.5	140
107	Acidic Deep Eutectic Solvents As Hydrolytic Media for Cellulose Nanocrystal Production. *Biomacromolecules*, **2016**, 17, 3025-32	6.9	140
106	Hydrophobic, Superabsorbing Aerogels from Choline Chloride-Based Deep Eutectic Solvent Pretreated and Silylated Cellulose Nanofibrils for Selective Oil Removal. *ACS Applied Materials & Interfaces*, **2017**, 9, 25029-25037	9.5	131
105	Sulfonated cellulose nanofibrils obtained from wood pulp through regioselective oxidative bisulfite pre-treatment. *Cellulose*, **2013**, 20, 741-749	5.5	109
104	Weighing the factors behind enzymatic hydrolyzability of pretreated lignocellulose. *Green Chemistry*, **2016**, 18, 1295-1305	10	97
103	Cellulose Nanofibrils from Nonderivatizing Urea-Based Deep Eutectic Solvent Pretreatments. *ACS Applied Materials & Interfaces*, **2017**, 9, 2846-2855	9.5	92
102	Lead adsorption with sulfonated wheat pulp nanocelluloses. *Journal of Water Process Engineering*, **2015**, 5, 136-142	6.7	90
101	Amphiphilic cellulose nanocrystals from acid-free oxidative treatment: physicochemical characteristics and use as an oil-water stabilizer. *Biomacromolecules*, **2014**, 15, 2769-75	6.9	89
100	The pH sensitive properties of carboxymethyl chitosan nanoparticles cross-linked with calcium ions. *Colloids and Surfaces B: Biointerfaces*, **2017**, 153, 229-236	6	84
99	High-strength nanocellulose-talc hybrid barrier films. *ACS Applied Materials & Interfaces*, **2013**, 5, 13412-8	9.5	83
98	Synthesis of highly cationic water-soluble cellulose derivative and its potential as novel biopolymeric flocculation agent. *Carbohydrate Polymers*, **2011**, 86, 266-270	10.3	80
97	Characterization of highly accessible cellulose microfibers generated by wet stirred media milling. *Carbohydrate Polymers*, **2011**, 83, 2005-2010	10.3	73

96	Strong, self-standing oxygen barrier films from nanocelluloses modified with regioselective oxidative treatments. *ACS Applied Materials & Interfaces*, **2014**, 6, 14384-90	9.5	68
95	Bisphosphonate nanocellulose in the removal of vanadium(V) from water. *Cellulose*, **2016**, 23, 689-697	5.5	64
94	Composite Films of Poly(vinyl alcohol) and Bifunctional Cross-linking Cellulose Nanocrystals. *ACS Applied Materials & Interfaces*, **2015**, 7, 19691-9	9.5	63
93	Nanoparticle emulsifiers based on bifunctionalized cellulose nanocrystals as marine diesel oil□water emulsion stabilizers. *Chemical Engineering Journal*, **2016**, 288, 312-320	14.7	63
92	Fabrication of cationic cellulosic nanofibrils through aqueous quaternization pretreatment and their use in colloid aggregation. *Carbohydrate Polymers*, **2014**, 103, 187-92	10.3	62
91	Direct sulfation of cellulose fibers using a reactive deep eutectic solvent to produce highly charged cellulose nanofibers. *Cellulose*, **2019**, 26, 2303-2316	5.5	62
90	UV-absorbing cellulose nanocrystals as functional reinforcing fillers in polymer nanocomposite films. *Journal of Materials Chemistry A*, **2016**, 4, 6368-6375	13	60
89	Use of nanoparticular and soluble anionic celluloses in coagulation-flocculation treatment of kaolin suspension. *Water Research*, **2012**, 46, 2159-66	12.5	57
88	A stretchable and compressible ion gel based on a deep eutectic solvent applied as a strain sensor and electrolyte for supercapacitors. *Journal of Materials Chemistry C*, **2020**, 8, 550-560	7.1	56
87	Recyclable deep eutectic solvent for the production of cationic nanocelluloses. *Carbohydrate Polymers*, **2018**, 199, 219-227	10.3	55
86	Anionically Stabilized Cellulose Nanofibrils through Succinylation Pretreatment in Urea-Lithium Chloride Deep Eutectic Solvent. *ChemSusChem*, **2016**, 9, 3074-3083	8.3	53
85	Flocculation performance of a cationic biopolymer derived from a cellulosic source in mild aqueous solution. *Bioresource Technology*, **2011**, 102, 9626-32	11	52
84	Sustainable stabilization of oil in water emulsions by cellulose nanocrystals synthesized from deep eutectic solvents. *Cellulose*, **2017**, 24, 1679-1689	5.5	50
83	Production and characterization of lignin containing nanocellulose from luffa through an acidic deep eutectic solvent treatment and systematic fractionation. *Industrial Crops and Products*, **2020**, 143, 111913	5.9	48
82	Regeneration and Recycling of Aqueous Periodate Solution in Dialdehyde Cellulose Production. *Journal of Wood Chemistry and Technology*, **2013**, 33, 258-266	2	47
81	Nanofibrillation of deep eutectic solvent-treated paper and board cellulose pulps. *Carbohydrate Polymers*, **2017**, 169, 167-175	10.3	46
80	Carboxymethyl Chitosan and Its Hydrophobically Modified Derivative as pH-Switchable Emulsifiers. *Langmuir*, **2018**, 34, 2800-2806	4	44
79	Mechanical fabrication of high-strength and redispersible wood nanofibers from unbleached groundwood pulp. *Cellulose*, **2017**, 24, 4173-4187	5.5	42

78	Dialdehyde cellulose microfibers generated from wood pulp by milling-induced periodate oxidation. *Carbohydrate Polymers*, **2011**, 86, 260-265	10.3	41
77	Anti-oxidative and UV-absorbing biohybrid film of cellulose nanofibrils and tannin extract. *Food Hydrocolloids*, **2019**, 92, 208-217	10.6	39
76	Phosphonated nanocelluloses from sequential oxidative-reductive treatment-Physicochemical characteristics and thermal properties. *Carbohydrate Polymers*, **2015**, 133, 524-32	10.3	38
75	Facile synthesis of palladium and gold nanoparticles by using dialdehyde nanocellulose as template and reducing agent. *Carbohydrate Polymers*, **2018**, 186, 132-139	10.3	38
74	Amino-modified cellulose nanocrystals with adjustable hydrophobicity from combined regioselective oxidation and reductive amination. *Carbohydrate Polymers*, **2016**, 136, 581-7	10.3	36
73	Acidic and alkaline deep eutectic solvents in delignification and nanofibrillation of corn stalk, wheat straw, and rapeseed stem residues. *Industrial Crops and Products*, **2020**, 145, 111956	5.9	36
72	Alkyl aminated nanocelluloses in selective flotation of aluminium oxide and quartz. *Chemical Engineering Science*, **2016**, 144, 260-266	4.4	35
71	The role of hornification in the disintegration behaviour of TEMPO-oxidized bleached hardwood fibres in a high-shear homogenizer. *Cellulose*, **2014**, 21, 1163-1174	5.5	35
70	Flocculation of municipal wastewaters with anionic nanocelluloses: Influence of nanocellulose characteristics on floc morphology and strength. *Journal of Environmental Chemical Engineering*, **2014**, 2, 2005-2012	6.8	35
69	Sustainable packaging materials based on wood cellulose. *RSC Advances*, **2013**, 3, 16590	3.7	34
68	Preparation of flame-retardant lignin-containing wood nanofibers using a high-consistency mechano-chemical pretreatment. *Chemical Engineering Journal*, **2019**, 375, 122050	14.7	32
67	Butylamino-functionalized cellulose nanocrystal films: barrier properties and mechanical strength. *RSC Advances*, **2015**, 5, 15140-15146	3.7	32
66	Polyion complex hydrogels from chemically modified cellulose nanofibrils: Structure-function relationship and potential for controlled and pH-responsive release of doxorubicin. *Acta Biomaterialia*, **2018**, 75, 346-357	10.8	31
65	Effect of tempo and periodate-chlorite oxidized nanofibrils on ground calcium carbonate flocculation and retention in sheet forming and on the physical properties of sheets. *Cellulose*, **2013**, 20, 2451-2460	5.5	31
64	Hierarchical Assembly of Nanocellulose-Based Filaments by Interfacial Complexation. *Small*, **2018**, 14, e1801937	11	30
63	Comparison of acidic deep eutectic solvents in production of chitin nanocrystals. *Carbohydrate Polymers*, **2020**, 236, 116095	10.3	27
62	High-strength cellulose nanofibers produced via swelling pretreatment based on a choline chloride–imidazole deep eutectic solvent. *Green Chemistry*, **2020**, 22, 1763-1775	10	27
61	Porous thin film barrier layers from 2,3-dicarboxylic acid cellulose nanofibrils for membrane structures. *Carbohydrate Polymers*, **2014**, 102, 584-9	10.3	27

60	Rapid uptake of pharmaceutical salbutamol from aqueous solutions with anionic cellulose nanofibrils: The importance of pH and colloidal stability in the interaction with ionizable pollutants. *Chemical Engineering Journal*, **2018**, 350, 378-385	14.7	26
59	Effect of plasticizers on the mechanical and thermomechanical properties of cellulose-based biocomposite films. *Industrial Crops and Products*, **2018**, 122, 513-521	5.9	25
58	Cationic nanocelluloses in dewatering of municipal activated sludge. *Journal of Environmental Chemical Engineering*, **2017**, 5, 86-92	6.8	25
57	Choline chloride-zinc chloride deep eutectic solvent mediated preparation of partial O-acetylation of chitin nanocrystal in one step reaction. *Carbohydrate Polymers*, **2019**, 220, 211-218	10.3	24
56	Determining the complex refractive index of cellulose nanocrystals by combination of Beer-Lambert and immersion matching methods. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2019**, 235, 1-6	2.1	23
55	Optimization of dicarboxylic acid cellulose synthesis: reaction stoichiometry and role of hypochlorite scavengers. *Carbohydrate Polymers*, **2014**, 114, 73-77	10.3	23
54	Magnetic superabsorbents based on nanocellulose aerobeads for selective removal of oils and organic solvents. *Materials and Design*, **2019**, 183, 108115	8.1	21
53	Cationic wood cellulose films with high strength and bacterial anti-adhesive properties. *Cellulose*, **2014**, 21, 3573-3583	5.5	20
52	Interactions between aminated cellulose nanocrystals and quartz: Adsorption and wettability studies. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2016**, 489, 207-215	5.1	19
51	New Training to Meet the Global Phosphorus Challenge. *Environmental Science & Technology*, **2019**, 53, 8479-8481	10.3	19
50	Nanofibrillation of TEMPO-oxidized bleached hardwood kraft cellulose at high solids content. *Holzforschung*, **2015**, 69, 1077-1088	2	19
49	Use of Chemically Modified Nanocelluloses in Flotation of Hematite and Quartz. *Industrial & Engineering Chemistry Research*, **2014**, 53, 20092-20098	3.9	19
48	Flocculation of fine hematite and quartz suspensions with anionic cellulose nanofibers. *Chemical Engineering Science*, **2016**, 148, 256-266	4.4	19
47	Zwitterionic hybrid aerobeads of binary metal organic frameworks and cellulose nanofibers for removal anionic pollutants. *Materials and Design*, **2020**, 196, 109106	8.1	18
46	Emulsion Stabilization with Functionalized Cellulose Nanoparticles Fabricated Using Deep Eutectic Solvents. *Molecules*, **2018**, 23,	4.8	18
45	Effect of Cellulose Nanofibrils on the Bond Strength of Polyvinyl Acetate and Starch Adhesives for Wood. *BioResources*, **2018**, 13,	1.3	17
44	Disintegration of periodate–chlorite oxidized hardwood pulp fibres to cellulose microfibrils: kinetics and charge threshold. *Cellulose*, **2014**, 21, 3691-3700	5.5	17
43	Key role of mild sulfonation of pine sawdust in the production of lignin containing microfibrillated cellulose by ultrafine wet grinding. *Industrial Crops and Products*, **2019**, 140, 111664	5.9	16

42	Synthesis of imidazolium-crosslinked chitosan aerogel and its prospect as a dye removing adsorbent. *RSC Advances*, **2016**, 6, 56544-56548	3.7	16
41	Hybrid films of cellulose nanofibrils, chitosan and nanosilica-Structural, thermal, optical, and mechanical properties. *Carbohydrate Polymers*, **2019**, 218, 87-94	10.3	15
40	Surface Modification of Cured Inorganic Foams with Cationic Cellulose Nanocrystals and Their Use as Reactive Filter Media for Anionic Dye Removal. *ACS Applied Materials & Interfaces*, **2020**, 12, 27745-27757	9.5	15
39	Enhancement of the nanofibrillation of birch cellulose pretreated with natural deep eutectic solvent. *Industrial Crops and Products*, **2020**, 154, 112677	5.9	15
38	Fluting medium strengthened by periodate□chlorite oxidized nanofibrillated celluloses. *Cellulose*, **2016**, 23, 427-437	5.5	15
37	Determination of nanoparticle size using Rayleigh approximation and Mie theory. *Chemical Engineering Science*, **2019**, 201, 222-229	4.4	14
36	Comparison of Lignin Fractions Isolated from Wheat Straw Using Alkaline and Acidic Deep Eutectic Solvents. *Journal of Agricultural and Food Chemistry*, **2020**, 68, 15074-15084	5.7	14
35	Hydrodynamic drag and rise velocity of microbubbles in papermaking process waters. *Chemical Engineering Journal*, **2010**, 162, 956-964	14.7	13
34	High-consistency milling of oxidized cellulose for preparing microfibrillated cellulose films. *Cellulose*, **2015**, 22, 3151-3160	5.5	12
33	Preparation of cellulose nanocrystals from lignin-rich reject material for oil emulsification in an aqueous environment. *Cellulose*, **2018**, 25, 293-304	5.5	12
32	Efficient entrapment and separation of anionic pollutants from aqueous solutions by sequential combination of cellulose nanofibrils and halloysite nanotubes. *Chemical Engineering Journal*, **2019**, 374, 1013-1024	14.7	11
31	Comprehensive NMR Analysis of Pore Structures in Superabsorbing Cellulose Nanofiber Aerogels. *Journal of Physical Chemistry C*, **2019**, 123, 30986-30995	3.8	11
30	Distinctive green recovery of silver species from modified cellulose: mechanism and spectroscopic studies. *International Journal of Biological Macromolecules*, **2015**, 76, 109-18	7.9	10
29	Self-assembly of graphene oxide and cellulose nanocrystals into continuous filament via interfacial nanoparticle complexation. *Materials and Design*, **2020**, 193, 108791	8.1	10
28	Efficient Hydrolysis of Chitin in a Deep Eutectic Solvent Synergism for Production of Chitin Nanocrystals. *Nanomaterials*, **2020**, 10,	5.4	10
27	Conductive hybrid filaments of carbon nanotubes, chitin nanocrystals and cellulose nanofibers formed by interfacial nanoparticle complexation. *Materials and Design*, **2020**, 191, 108594	8.1	10
26	Ultra-low permittivity porous silica-cellulose nanocomposite substrates for 6G telecommunication. *Nanotechnology*, **2020**, 31, 435203	3.4	10
25	High-performance and sustainable aerosol filters based on hierarchical and crosslinked nanofoams of cellulose nanofibers. *Journal of Cleaner Production*, **2021**, 310, 127498	10.3	10

24	Self-assembled nanofibrils from RGD-functionalized cellulose nanocrystals to improve the performance of PEI/DNA polyplexes. *Journal of Colloid and Interface Science*, **2019**, 553, 71-82	9.3	9
23	Morphological Analyses of Some Micro- and Nanofibrils from Birch and Wheat Straw Sources. *Journal of Wood Chemistry and Technology*, **2015**, 35, 102-112	2	7
22	Fragment analysis of different size-reduced lignocellulosic pulps by hydrodynamic fractionation. *Cellulose*, **2012**, 19, 237-248	5.5	7
21	Interfacial Nanoparticle Complexation of Oppositely Charged Nanocelluloses into Functional Filaments with Conductive, Drug Release, or Antimicrobial Property. *ACS Applied Materials & Interfaces*, **2020**, 12, 1765-1774	9.5	7
20	One-Step Twin-Screw Extrusion Process to Fibrillate Deep Eutectic Solvent-Treated Wood to Be Used in Wood Fiber-Polypropylene Composites. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 883-893	8.3	7
19	Castor oil-based biopolyurethane reinforced with wood microfibers derived from mechanical pulp. *Cellulose*, **2017**, 24, 2531-2543	5.5	6
18	A cross-linked 2,3-dicarboxylic acid cellulose nanofibril network: A nanoporous thin-film layer with tailored pore size for composite membranes. *Separation and Purification Technology*, **2015**, 154, 44-50	8.3	6
17	Solid Air□ow Temperature Manufacturing of Ultra-Low Permittivity Composite Materials for Future Telecommunication Systems. *Frontiers in Materials*, **2019**, 6,	4	4
16	Enhancing packaging board properties using micro- and nanofibers prepared from recycled board. *Cellulose*, **2020**, 27, 7215-7225	5.5	3
15	Adsorption of bark derived polyphenols onto functionalized nanocellulose: Equilibrium modeling and kinetics. *AICHE Journal*, **2020**, 66, e16823	3.6	3
14	Hydrophobic modification of nanocellulose and all-cellulose composite films using deep eutectic solvent as a reaction medium. *Cellulose*, **2021**, 28, 5433	5.5	3
13	Wood-based composite materials for ultralight lens antennas in 6G systems. *Materials Advances*, **2022**, 3, 1687-1694	3.3	2
12	Effect of carboxymethylcellulose and starch depressants on recovery of filler and fines in tertiary flotation. *Tappi Journal*, **2013**, 12, 43-50	0.5	2
11	Surface analysis of tissue paper using laser scanning confocal microscopy and micro-computed topography. *Cellulose*, **2020**, 27, 8989-9003	5.5	2
10	Monitoring drying process of varnish by immersion solid matching method. *Progress in Organic Coatings*, **2019**, 136, 105299	4.8	1
9	Superabsorbent Aerogels from Cellulose Nanofibril Hydrogels. *Polymers and Polymeric Composites*, **2018**, 1-26	0.6	1
8	Silylated Thiol-Containing Cellulose Nanofibers as a Bio-Based Flocculation Agent for Ultrafine Mineral Particles of Chalcopyrite and Pyrite. *Journal of Sustainable Metallurgy*,1	2.7	1
7	Water-resistant nanopaper with tunable water barrier and mechanical properties from assembled complexes of oppositely charged cellulosic nanomaterials. *Food Hydrocolloids*, **2021**, 120, 106983	10.6	1

6	Size exclusion and affinity-based removal of nanoparticles with electrospun cellulose acetate membranes infused with functionalized cellulose nanocrystals. *Materials and Design*, **2022**, 217, 110654	8.1	1
5	Nanostructured and Advanced Designs from Biomass and Mineral Residues: Multifunctional Biopolymer Hydrogels and Hybrid Films Reinforced with Exfoliated Mica Nanosheets. *ACS Applied Materials & Interfaces*, **2021**, 13, 57841-57850	9.5	0
4	Fast and Filtration-Free Method to Prepare Lactic Acid-Modified Cellulose Nanopaper. *ACS Omega*, **2021**, 6, 19038-19044	3.9	0
3	Energy consumption, physical properties and reinforcing ability of microfibrillated cellulose with high lignin content made from non-delignified spruce and pine sawdust. *Industrial Crops and Products*, **2021**, 170, 113738	5.9	0
2	Adjustable hydro-thermochromic green nanofoams and films obtained from shapable hybrids of cellulose nanofibrils and ionic liquids for smart packaging. *Chemical Engineering Journal*, **2022**, 136369	14.7	0
1	Superabsorbent Aerogels from Cellulose Nanofibril Hydrogels. *Polymers and Polymeric Composites*, **2019**, 575-600	0.6	