

Eero Kontturi

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

124 papers	4,216 citations	36 h-index	61 g-index
134 ext. papers	4,922 ext. citations	6.8 avg, IF	5.87 L-index

#	Paper	IF	Citations
124	Assessing Fire-Damage in Historical Papers and Alleviating Damage with Soft Cellulose Nanofibers.. <i>Small</i> , 2022 , e2105420	11	0
123	Biowaste-derived electrode and electrolyte materials for flexible supercapacitors. <i>Chemical Engineering Journal</i> , 2022 , 435, 135058	14.7	5
122	Solid-state polymer adsorption for surface modification: The role of molecular weight. <i>Journal of Colloid and Interface Science</i> , 2022 , 605, 441-450	9.3	0
121	Effect of Moisture on Polymer Deconstruction in HCl Gas Hydrolysis of Wood.. <i>ACS Omega</i> , 2022 , 7, 7074-7083	5.9	0
120	Tuning the Porosity, Water Interaction, and Redispersion of Nanocellulose Hydrogels by Osmotic Dehydration.. <i>ACS Applied Polymer Materials</i> , 2022 , 4, 24-28	4.3	2
119	Excellence in Excrements: Upcycling of Herbivore Manure into Nanocellulose and Biogas. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 15506-15513	8.3	3
118	Influence of biological origin on the tensile properties of cellulose nanopapers. <i>Cellulose</i> , 2021 , 28, 6619-6628	5.5	13
117	Directed Assembly of Cellulose Nanocrystals in Their Native Solid-State Template of a Processed Fiber Cell Wall. <i>Macromolecular Rapid Communications</i> , 2021 , 42, e2100092	4.8	6
116	Challenges in Synthesis and Analysis of Asymmetrically Grafted Cellulose Nanocrystals via Atom Transfer Radical Polymerization. <i>Biomacromolecules</i> , 2021 , 22, 2702-2717	6.9	6
115	Surface hydrophobization of pulp fibers in paper sheets via gas phase reactions. <i>International Journal of Biological Macromolecules</i> , 2021 , 180, 80-87	7.9	0
114	Chemical Modification of Reducing End-Groups in Cellulose Nanocrystals. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 66-87	16.4	39
113	Chemische Modifizierung der reduzierenden Enden von Cellulosenanokristallen. <i>Angewandte Chemie</i> , 2021 , 133, 66-88	3.6	2
112	Nanocellulose: Recent Fundamental Advances and Emerging Biological and Biomimicking Applications. <i>Advanced Materials</i> , 2021 , 33, e2004349	24	81
111	Visualizing Degradation of Cellulose Nanofibers by Acid Hydrolysis. <i>Biomacromolecules</i> , 2021 , 22, 1399-1405	10.5	7
110	Tuning the Physicochemical Properties of Cellulose Nanocrystals through an In Situ Oligosaccharide Surface Modification Method. <i>Biomacromolecules</i> , 2021 , 22, 3284-3296	6.9	3
109	Cationic cellulose nanocrystals for fast, efficient and selective heparin recovery. <i>Chemical Engineering Journal</i> , 2021 , 420, 129811	14.7	5
108	Nanocellulose-based mechanically stable immobilization matrix for enhanced ethylene production: a framework for photosynthetic solid-state cell factories. <i>Green Chemistry</i> , 2021 , 23, 3715-3724	10	5

107	Bottom-up Construction of Xylan Nanocrystals in Dimethyl Sulfoxide. <i>Biomacromolecules</i> , 2021 , 22, 898-906	8.6	8
106	Plastic to elastic: Fungi-derived composite nanopapers with tunable tensile properties. <i>Composites Science and Technology</i> , 2020 , 198, 108327	8.6	14
105	Native Structure of the Plant Cell Wall Utilized for Top-Down Assembly of Aligned Cellulose Nanocrystals into Micrometer-Sized Nanoporous Particles. <i>Macromolecular Rapid Communications</i> , 2020 , 41, e2000201	4.8	4
104	Surface properties of chitin-glucan nanopapers from <i>Agaricus bisporus</i> . <i>International Journal of Biological Macromolecules</i> , 2020 , 148, 677-687	7.9	14
103	Mushroom-derived chitosan-glucan nanopaper filters for the treatment of water. <i>Reactive and Functional Polymers</i> , 2020 , 146, 104428	4.6	22
102	Structural Order in Cellulose Thin Films Prepared from a Trimethylsilyl Precursor. <i>Biomacromolecules</i> , 2020 , 21, 653-659	6.9	7
101	Nanomaterials Derived from Fungal Sources-Is It the New Hype?. <i>Biomacromolecules</i> , 2020 , 21, 30-55	6.9	37
100	Recovery of Gold from Chloride Solution by TEMPO-Oxidized Cellulose Nanofiber Adsorbent. <i>Sustainability</i> , 2019 , 11, 1406	3.6	13
99	Chitin Nanopaper from Mushroom Extract: Natural Composite of Nanofibers and Glucan from a Single Biobased Source. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 6492-6496	8.3	54
98	Cellulose carbamate derived cellulose thin films: preparation, characterization and blending with cellulose xanthate. <i>Cellulose</i> , 2019 , 26, 7399-7410	5.5	10
97	Sustainable High Yield Route to Cellulose Nanocrystals from Bacterial Cellulose. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 14384-14388	8.3	15
96	Waste-Derived Low-Cost Mycelium Nanopapers with Tunable Mechanical and Surface Properties. <i>Biomacromolecules</i> , 2019 , 20, 3513-3523	6.9	31
95	Ultrathin Films of Cellulose: A Materials Perspective. <i>Frontiers in Chemistry</i> , 2019 , 7, 488	5	23
94	Knoevenagel Condensation for Modifying the Reducing End Groups of Cellulose Nanocrystals. <i>ACS Macro Letters</i> , 2019 , 8, 1642-1647	6.6	14
93	Advanced Materials through Assembly of Nanocelluloses. <i>Advanced Materials</i> , 2018 , 30, e1703779	24	340
92	Time-Dependent Behavior of Cation Transport through Cellulose Acetate-Cationic Polyelectrolyte Membranes. <i>Journal of the Electrochemical Society</i> , 2018 , 165, H39-H44	3.9	
91	Processing of Citrus Nanostructured Cellulose: A Rigorous Design-of-Experiment Study of the Hydrothermal Microwave-Assisted Selective Scissoring Process. <i>ChemSusChem</i> , 2018 , 11, 1344-1353	8.3	22
90	Structural distinction due to deposition method in ultrathin films of cellulose nanofibres. <i>Cellulose</i> , 2018 , 25, 1715-1724	5.5	10

89	The Effect of Polymorphism on the Kinetics of Adsorption and Degradation: A Case of Hydrogen Chloride Vapor on Cellulose. <i>Advanced Sustainable Systems</i> , 2018 , 2, 1800026	5.9	6
88	From vapour to gas: optimising cellulose degradation with gaseous HCl. <i>Reaction Chemistry and Engineering</i> , 2018 , 3, 312-318	4.9	12
87	Entangled and colloidally stable microcrystalline cellulose matrices in controlled drug release. <i>International Journal of Pharmaceutics</i> , 2018 , 548, 113-119	6.5	13
86	Supramolecular Aspects of Native Cellulose: Fringed-fibrillar Model, Leveling-off Degree of Polymerization and Production of Cellulose Nanocrystals 2018 , 263-276		2
85	Impact of hydrothermal and alkaline treatments of birch kraft pulp on the levelling-off degree of polymerization (LODP) of cellulose microfibrils. <i>Cellulose</i> , 2018 , 25, 6811-6818	5.5	6
84	Phase behaviour and droplet size of oil-in-water Pickering emulsions stabilised with plant-derived nanocellulosic materials. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017 , 519, 60-70	5.1	101
83	Cellulose nanocrystals by acid vapour: towards more effortless isolation of cellulose nanocrystals. <i>Faraday Discussions</i> , 2017 , 202, 315-330	3.6	35
82	Surface-Induced Frustration in Solid State Polymorphic Transition of Native Cellulose Nanocrystals. <i>Biomacromolecules</i> , 2017 , 18, 1975-1982	6.9	14
81	Noncovalent Surface Modification of Cellulose Nanopapers by Adsorption of Polymers from Aprotic Solvents. <i>Langmuir</i> , 2017 , 33, 5707-5712	4	33
80	Strongly reduced thermal conductivity in hybrid ZnO/nanocellulose thin films. <i>Journal of Materials Science</i> , 2017 , 52, 6093-6099	4.3	13
79	TEMPO-mediated oxidation of microcrystalline cellulose: limiting factors for cellulose nanocrystal yield. <i>Cellulose</i> , 2017 , 24, 1657-1667	5.5	41
78	Influence of the quality of microcrystalline cellulose on the outcome of TEMPO-mediated oxidation. <i>Cellulose</i> , 2017 , 24, 5697-5704	5.5	3
77	Interfacial Mechanisms of Water Vapor Sorption into Cellulose Nanofibril Films as Revealed by Quantitative Models. <i>Biomacromolecules</i> , 2017 , 18, 2951-2958	6.9	35
76	Bio-based materials: general discussion. <i>Faraday Discussions</i> , 2017 , 202, 121-139	3.6	3
75	Study of Transport Properties of Polyelectrolyte-Cellulose Acetate Membranes. <i>ECS Transactions</i> , 2017 , 77, 663-669	1	1
74	Nanocellulose-Based Materials in Supramolecular Chemistry 2017 , 351-364		0
73	Cellulose-Nanokristalle in hoher Ausbeute durch Abbau und Kristallisation von Cellulose mittels gasförmigem Chlorwasserstoff. <i>Angewandte Chemie</i> , 2016 , 128, 14671-14674	3.6	2
72	Strong and Stiff: High-Performance Cellulose Nanocrystal/Poly(vinyl alcohol) Composite Fibers. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 31500-31504	9.5	82

71	Degradation and Crystallization of Cellulose in Hydrogen Chloride Vapor for High-Yield Isolation of Cellulose Nanocrystals. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 14455-14458	16.4	83
70	Parameters affecting monolayer organisation of substituted polysaccharides on solid substrates upon Langmuir-Schaefer deposition. <i>Reactive and Functional Polymers</i> , 2016 , 99, 100-106	4.6	9
69	Noncovalent Dispersion and Functionalization of Cellulose Nanocrystals with Proteins and Polysaccharides. <i>Biomacromolecules</i> , 2016 , 17, 1458-65	6.9	21
68	Mimicking the Humidity Response of the Plant Cell Wall by Using Two-Dimensional Systems: The Critical Role of Amorphous and Crystalline Polysaccharides. <i>Langmuir</i> , 2016 , 32, 2032-40	4	33
67	Direct Interfacial Modification of Nanocellulose Films for Thermoresponsive Membrane Templates. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 2923-7	9.5	42
66	Chiral Plasmonics Using Twisting along Cellulose Nanocrystals as a Template for Gold Nanoparticles. <i>Advanced Materials</i> , 2016 , 28, 5262-7	24	83
65	Surface-Sensitive Approach to Interpreting Supramolecular Rearrangements in Cellulose by Synchrotron Grazing Incidence Small-Angle X-ray Scattering. <i>ACS Macro Letters</i> , 2015 , 4, 713-716	6.6	30
64	Chemical characteristics of squeezable sap of hydrothermally treated silver birch logs (<i>Betula pendula</i>): effect of treatment time and the quality of the soaking water in pilot scale experiment. <i>Wood Science and Technology</i> , 2015 , 49, 289-302	2.5	7
63	Cross-linking of cellulose and poly(ethylene glycol) with citric acid. <i>Reactive and Functional Polymers</i> , 2015 , 90, 21-24	4.6	45
62	Water Vapor Uptake of Ultrathin Films of Biologically Derived Nanocrystals: Quantitative Assessment with Quartz Crystal Microbalance and Spectroscopic Ellipsometry. <i>Langmuir</i> , 2015 , 31, 12170-6	4.6	62
61	The chemical characteristics of squeezable sap from silver birch (<i>Betula pendula</i>) logs hydrothermally treated at 70 °C: the effect of treatment time on the concentration of water extracts. <i>Wood Science and Technology</i> , 2015 , 49, 1295-1306	2.5	3
60	Genotoxic and immunotoxic effects of cellulose nanocrystals in vitro. <i>Environmental and Molecular Mutagenesis</i> , 2015 , 56, 171-82	3.2	57
59	Simultaneous preparation of cellulose nanocrystals and micron-sized porous colloidal particles of cellulose by TEMPO-mediated oxidation. <i>Green Chemistry</i> , 2015 , 17, 808-811	10	63
58	The Effect of Hydrothermal Treatment on the Color Stability and Chemical Properties of Birch Veneer Surfaces. <i>BioResources</i> , 2015 , 10, 6610-6623	1.3	6
57	Healable, Stable and Stiff Hydrogels: Combining Conflicting Properties Using Dynamic and Selective Three-Component Recognition with Reinforcing Cellulose Nanorods. <i>Advanced Functional Materials</i> , 2014 , 24, 2706-2713	15.6	197
56	Supracolloidal multivalent interactions and wrapping of dendronized glycopolymers on native cellulose nanocrystals. <i>Journal of the American Chemical Society</i> , 2014 , 136, 866-9	16.4	63
55	Thermoresponsive Nanocellulose Hydrogels with Tunable Mechanical Properties.. <i>ACS Macro Letters</i> , 2014 , 3, 266-270	6.6	135
54	2D dendritic fractal patterns from an amphiphilic polysaccharide. <i>Soft Matter</i> , 2014 , 10, 1801-5	3.6	7

53	Accessibility of Cell Wall Lignin in Solvent Extraction of Ultrathin Spruce Wood Sections. <i>ACS Sustainable Chemistry and Engineering</i> , 2014 , 2, 804-808	8.3	5
52	Cationic polymer brush-modified cellulose nanocrystals for high-affinity virus binding. <i>Nanoscale</i> , 2014 , 6, 11871-81	7.7	79
51	Molecular engineering of fracture energy dissipating sacrificial bonds into cellulose nanocrystal nanocomposites. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 5049-53	16.4	42
50	Thin Film Deposition Techniques. <i>Materials and Energy</i> , 2014 , 7-18		
49	Dissolution control of Mg by cellulose acetate-polyelectrolyte membranes. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 22393-9	9.5	8
48	Molecular Engineering of Fracture Energy Dissipating Sacrificial Bonds Into Cellulose Nanocrystal Nanocomposites. <i>Angewandte Chemie</i> , 2014 , 126, 5149-5153	3.6	16
47	A method for the heterogeneous modification of nanofibrillar cellulose in aqueous media. <i>Carbohydrate Polymers</i> , 2014 , 100, 107-15	10.3	33
46	Controlled hydrophobic functionalization of natural fibers through self-assembly of amphiphilic diblock copolymer micelles. <i>ChemSusChem</i> , 2013 , 6, 1203-8	8.3	8
45	Specific water uptake of thin films from nanofibrillar cellulose. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 13655	13	39
44	The unusual interactions between polymer grafted cellulose nanocrystal aggregates. <i>Soft Matter</i> , 2013 , 9, 8965	3.6	11
43	Accessibility of cellulose: Structural changes and their reversibility in aqueous media. <i>Carbohydrate Polymers</i> , 2013 , 93, 424-9	10.3	30
42	All-cellulose multilayers: long nanofibrils assembled with short nanocrystals. <i>Cellulose</i> , 2013 , 20, 1777-1789	5.9	23
41	Protein-assisted 2D assembly of gold nanoparticles on a polysaccharide surface. <i>Chemical Communications</i> , 2013 , 49, 1318-20	5.8	20
40	Transition to reinforced state by percolating domains of intercalated brush-modified cellulose nanocrystals and poly(butadiene) in cross-linked composites based on thiol-ene click chemistry. <i>Biomacromolecules</i> , 2013 , 14, 1547-54	6.9	84
39	Colorimetric Behavior and Seasonal Characteristic of Xylem Sap Obtained by Mechanical Compression from Silver Birch (<i>Betula pendula</i>). <i>ACS Sustainable Chemistry and Engineering</i> , 2013 , 1, 1075-1082	8.3	27
38	A Systematic Study of Noncross-linking Wet Strength Agents. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 12010-12017	3.9	7
37	Bicomponent fibre mats with adhesive ultra-hydrophobicity tailored with cellulose derivatives. <i>Journal of Materials Chemistry</i> , 2012 , 22, 12072		27
36	SEM imaging of chiral nematic films cast from cellulose nanocrystal suspensions. <i>Cellulose</i> , 2012 , 19, 1599-1605	5.5	186

35	Carboxymethyl cellulose on a fiber substrate: the interactions with cationic polyelectrolytes. <i>Cellulose</i> , 2012 , 19, 2217-2231	5.5	19
34	Influence of adsorbed polyelectrolytes on pore size distribution of a water-swollen biomaterial. <i>Soft Matter</i> , 2012 , 8, 4740	3.6	22
33	Generic method for modular surface modification of cellulosic materials in aqueous medium by sequential "click" reaction and adsorption. <i>Biomacromolecules</i> , 2012 , 13, 736-42	6.9	105
32	PROPOSED NANO-SCALE COALESCENCE OF CELLULOSE IN CHEMICAL PULP FIBERS DURING TECHNICAL TREATMENTS. <i>BioResources</i> , 2012 , 7,	1.3	74
31	Ultrastructural evaluation of compression wood-like properties of common juniper (<i>Juniperus communis</i> L.). <i>Holzforschung</i> , 2012 , 66,	2	9
30	Morphology of poly(methyl methacrylate) and polystyrene blends upon Langmuir-Schaefer deposition. <i>Soft Matter</i> , 2011 , 7, 743-748	3.6	11
29	Thickness Dependence of Reflection-Absorption Infrared Spectra of Supported Thin Polymer Films. <i>Macromolecules</i> , 2011 , 44, 1775-1778	5.5	13
28	Polyelectrolyte brushes grafted from cellulose nanocrystals using Cu-mediated surface-initiated controlled radical polymerization. <i>Biomacromolecules</i> , 2011 , 12, 2997-3006	6.9	125
27	Amorphous characteristics of an ultrathin cellulose film. <i>Biomacromolecules</i> , 2011 , 12, 770-7	6.9	83
26	Distribution of lignin and its coniferyl alcohol and coniferyl aldehyde groups in <i>Picea abies</i> and <i>Pinus sylvestris</i> as observed by Raman imaging. <i>Phytochemistry</i> , 2011 , 72, 1889-95	4	58
25	Phase-specific pore growth in ultrathin bicomponent films from cellulose-based polysaccharides. <i>Soft Matter</i> , 2011 , 7, 10386	3.6	14
24	Quantitative assessment of the enzymatic degradation of amorphous cellulose by using a quartz crystal microbalance with dissipation monitoring. <i>Langmuir</i> , 2011 , 27, 8819-28	4	42
23	Utilizing Polymer Blends to Prepare Ultrathin Films with Diverse Cellulose Textures. <i>Macromolecular Symposia</i> , 2010 , 294, 45-50	0.8	2
22	Impact of drying on wood ultrastructure observed by deuterium exchange and photoacoustic FT-IR spectroscopy. <i>Biomacromolecules</i> , 2010 , 11, 515-20	6.9	58
21	Impact of drying on wood ultrastructure: similarities in cell wall alteration between native wood and isolated wood-based fibers. <i>Biomacromolecules</i> , 2010 , 11, 2161-8	6.9	53
20	Following the kinetics of a chemical reaction in ultrathin supported polymer films by reliable mass density determination with X-ray reflectivity. <i>Journal of the American Chemical Society</i> , 2010 , 132, 3678-9	16.4	31
19	Thermal Degradation of Cellulose Nanocrystals Deposited on Different Surfaces. <i>Macromolecular Symposia</i> , 2010 , 294, 51-57	0.8	3
18	Cellulose Model Films: Challenges in Preparation. <i>ACS Symposium Series</i> , 2010 , 57-74	0.4	2

17	Effects of commercial cellobiohydrolase treatment on fiber strength and morphology of bleached hardwood pulp 10th EWLP, Stockholm, Sweden, August 25-28, 2008. <i>Holzforschung</i> , 2009 , 63,	2	13
16	Indirect evidence of supramolecular changes within cellulose microfibrils of chemical pulp fibers upon drying. <i>Cellulose</i> , 2009 , 16, 65-74	5.5	67
15	Arrangements of cationic starch of varying hydrophobicity on hydrophilic and hydrophobic surfaces. <i>Journal of Colloid and Interface Science</i> , 2009 , 336, 21-9	9.3	8
14	Carboxymethyl Cellulose Treatment As a Method to Inhibit Vessel Picking Tendency in Printing of Eucalyptus Pulp Sheets. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 1887-1892	3.9	16
13	Ultrathin cellulose films of tunable nanostructured morphology with a hydrophobic component. <i>Biomacromolecules</i> , 2009 , 10, 1276-81	6.9	20
12	Cellulose decorated cavities on ultrathin films of PMMA. <i>Soft Matter</i> , 2009 , 5, 1786	3.6	21
11	Differences in residual lignin properties between <i>Betula verrucosa</i> and <i>Eucalyptus urograndis</i> kraft pulps. <i>Biopolymers</i> , 2008 , 89, 889-93	2.2	
10	Optimising CMC sorption in order to improve tensile stiffness of hardwood pulp sheets. <i>Nordic Pulp and Paper Research Journal</i> , 2007 , 22, 336-342	1.1	18
9	Cellulose nanocrystal submonolayers by spin coating. <i>Langmuir</i> , 2007 , 23, 9674-80	4	67
8	Fibre surface and strength of a fibre network. <i>Holzforschung</i> , 2006 , 60, 691-693	2	5
7	Cellulose--model films and the fundamental approach. <i>Chemical Society Reviews</i> , 2006 , 35, 1287-304	58.5	183
6	Trimethylsilylcellulose/Polystyrene Blends as a Means To Construct Cellulose Domains on Cellulose. <i>Macromolecules</i> , 2005 , 38, 10712-10720	5.5	16
5	Introducing open films of nanosized cellulose--atomic force microscopy and quantification of morphology. <i>Polymer</i> , 2005 , 46, 3307-3317	3.9	27
4	Quantification method for hydrogen peroxide formation during oxygen delignification of kraft pulp. <i>Nordic Pulp and Paper Research Journal</i> , 2005 , 20, 490-495	1.1	4
3	Novel method for preparing cellulose model surfaces by spin coating. <i>Polymer</i> , 2003 , 44, 3621-3625	3.9	70
2	Cellulose Model Surfaces Simplified Preparation by Spin Coating and Characterization by X-ray Photoelectron Spectroscopy, Infrared Spectroscopy, and Atomic Force Microscopy. <i>Langmuir</i> , 2003 , 19, 5735-5741	4	165
1	Grow it yourself composites: delignification and hybridisation of lignocellulosic material using animals and fungi. <i>Green Chemistry</i> ,	10	1