Tekla Tammelin

List of Publications by Year
in descending order

76 papers	3,488 citations	117625 34 h-index	144013 57 g-index
78 all docs	78 docs citations	78 times ranked	3942 citing authors

#	Article	IF	Citations
1	Celluloseâ€"model films and the fundamental approach. Chemical Society Reviews, 2006, 35, 1287-1304.	38.1	213
2	Nanocellulose: Recent Fundamental Advances and Emerging Biological and Biomimicking Applications. Advanced Materials, 2021, 33, e2004349.	21.0	212
3	High Performance Cellulose Nanocomposites: Comparing the Reinforcing Ability of Bacterial Cellulose and Nanofibrillated Cellulose. ACS Applied Materials & Interfaces, 2012, 4, 4078-4086.	8.0	202
4	Free radical graft copolymerization of nanofibrillated cellulose with acrylic monomers. Carbohydrate Polymers, 2011, 84, 1039-1047.	10.2	161
5	Cellulose nanopapers as tight aqueous ultra-filtration membranes. Reactive and Functional Polymers, 2015, 86, 209-214.	4.1	147
6	Phase behaviour and droplet size of oil-in-water Pickering emulsions stabilised with plant-derived nanocellulosic materials. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 519, 60-70.	4.7	143
7	In situ TEMPO surface functionalization of nanocellulose membranes for enhanced adsorption of metal ions from aqueous medium. RSC Advances, 2017, 7, 5232-5241.	3.6	120
8	Nanopapers for organic solvent nanofiltration. Chemical Communications, 2014, 50, 5778-5781.	4.1	114
9	Experimental evidence on medium driven cellulose surface adaptation demonstrated using nanofibrillated cellulose. Soft Matter, 2011, 7, 10917.	2.7	111
10	Immobilizationâ€"Stabilization of Proteins on Nanofibrillated Cellulose Derivatives and Their Bioactive Film Formation. Biomacromolecules, 2012, 13, 594-603.	5.4	108
11	Viscoelastic Properties of Cationic Starch Adsorbed on Quartz Studied by QCM-D. Langmuir, 2004, 20, 10900-10909.	3.5	84
12	Xylan as limiting factor in enzymatic hydrolysis of nanocellulose. Bioresource Technology, 2013, 129, 135-141.	9.6	82
13	Preparation of Langmuir/Blodgett-cellulose Surfaces by Using Horizontal Dipping Procedure. Application for Polyelectrolyte Adsorption Studies Performed with QCM-D. Cellulose, 2006, 13, 519-535.	4.9	81
14	Modified nanofibrillated celluloseâ€"polyvinyl alcohol films with improved mechanical performance. RSC Advances, 2014, 4, 11343.	3.6	81
15	Water Vapor Uptake of Ultrathin Films of Biologically Derived Nanocrystals: Quantitative Assessment with Quartz Crystal Microbalance and Spectroscopic Ellipsometry. Langmuir, 2015, 31, 12170-12176.	3.5	79
16	Adsorption of Cationic Starch on Cellulose Studied by QCM-D. Langmuir, 2008, 24, 4743-4749.	3.5	68
17	Waterborne nanocellulose coatings for improving the antifouling and antibacterial properties of polyethersulfone membranes. Journal of Membrane Science, 2021, 620, 118842.	8.2	59
18	Significance of xylan on the stability and water interactions of cellulosic nanofibrils. Reactive and Functional Polymers, 2014, 85, 157-166.	4.1	55

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19	Interfacial Mechanisms of Water Vapor Sorption into Cellulose Nanofibril Films as Revealed by Quantitative Models. Biomacromolecules, 2017, 18, 2951-2958.	5.4	55
20	Understanding the interactions of cellulose fibres and deep eutectic solvent of choline chloride and urea. Cellulose, 2018, 25, 137-150.	4.9	55
21	Sample geometry dependency on the measured tensile properties of cellulose nanopapers. Materials and Design, 2017, 121, 421-429.	7.0	50
22	Surface tailoring and design-driven prototyping of fabrics with 3D-printing: An all-cellulose approach. Materials and Design, 2018, 140, 409-419.	7.0	50
23	Biohybrid barrier films from fluidized pectin and nanoclay. Carbohydrate Polymers, 2010, 82, 989-996.	10.2	48
24	Effect of interfibrillar PVA bridging on water stability and mechanical properties of TEMPO/NaClO2 oxidized cellulosic nanofibril films. Carbohydrate Polymers, 2015, 126, 78-82.	10.2	48
25	Quantitative Assessment of the Enzymatic Degradation of Amorphous Cellulose by Using a Quartz Crystal Microbalance with Dissipation Monitoring. Langmuir, 2011, 27, 8819-8828.	3.5	47
26	Direct Interfacial Modification of Nanocellulose Films for Thermoresponsive Membrane Templates. ACS Applied Materials & Interfaces, 2016, 8, 2923-2927.	8.0	47
27	Correlation between cellulose thin film supramolecular structures and interactions with water. Soft Matter, 2015, 11, 4273-4282.	2.7	43
28	Viscoelastic Properties of Coreâ€“Shell-Structured, Hemicellulose-Rich Nanofibrillated Cellulose in Dispersion and Wet-Film States. Biomacromolecules, 2016, 17, 2104-2111.	5.4	43
29	Mimicking the Humidity Response of the Plant Cell Wall by Using Two-Dimensional Systems: The Critical Role of Amorphous and Crystalline Polysaccharides. Langmuir, 2016, 32, 2032-2040.	3.5	42
30	Etherification of Wood-Based Hemicelluloses for Interfacial Activity. Biomacromolecules, 2016, 17, 1894-1901.	5.4	41
31	Nanofibrillated cellulose, poly(vinyl alcohol), montmorillonite clay hybrid nanocomposites with superior barrier and thermomechanical properties. Polymer Composites, 2014, 35, 1117-1131.	4.6	38
32	Understanding the mechanisms of oxygen diffusion through surface functionalized nanocellulose films. Carbohydrate Polymers, 2017, 174, 309-317.	10.2	38
33	Solvent impact on esterification and film formation ability of nanofibrillated cellulose. Cellulose, 2013, 20, 2359-2370.	4.9	37
34	Structural Features and Water Interactions of Etherified Xylan Thin Films. Journal of Polymers and the Environment, 2012, 20, 895-904.	5.0	35
35	Fabrication of micropillars on nanocellulose films using a roll-to-roll nanoimprinting method. Microelectronic Engineering, 2016, 163, 1-6.	2.4	34
36	Versatile templates from cellulose nanofibrils for photosynthetic microbial biofuel production. Journal of Materials Chemistry A, 2018, 6, 5825-5835.	10.3	34

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37	Interaction between Cellulose and Xylan: An Atomic Force Microscope and Quartz Crystal Microbalance Study. ACS Symposium Series, 2003, , 269-290.	0.5	32
38	Preparation of lignin and extractive model surfaces by using spincoating technique â€“ Application for QCM-D studies. Nordic Pulp and Paper Research Journal, 2006, 21, 444-450.	0.7	32
39	Adsorption of complexes formed by cationic starch and anionic surfactants on quartz studied by QCM-D. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2004, 250, 103-114.	4.7	29
40	Charged ultrafiltration membranes based on TEMPO-oxidized cellulose nanofibrils/poly(vinyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622 T	3.6	29
41	Production of High Solid Nanocellulose by Enzyme-Aided Fibrillation Coupled with Mild Mechanical Treatment. ACS Sustainable Chemistry and Engineering, 2020, 8, 18853-18863.	6.7	26
42	Capturing colloidal nano- and microplastics with plant-based nanocellulose networks. Nature Communications, 2022, 13, 1814.	12.8	25
43	Clean and reactive nanostructured cellulose surface. Cellulose, 2013, 20, 983-990.	4.9	24
44	Adsorption of colloidal extractives and dissolved hemicelluloses on thermomechanical pulp fiber components studied by QCM-D. Nordic Pulp and Paper Research Journal, 2007, 22, 93-101.	0.7	21
45	Prevention of interfibril hornification by replacing water in nanocellulose gel with low molecular weight liquid poly(ethylene glycol). Carbohydrate Polymers, 2020, 250, 116870.	10.2	21
46	Bottom-up Construction of Xylan Nanocrystals in Dimethyl Sulfoxide. Biomacromolecules, 2021, 22, 898-906.	5.4	20
47	Strongly reduced thermal conductivity in hybrid ZnO/nanocellulose thin films. Journal of Materials Science, 2017, 52, 6093-6099.	3.7	19
48	Effects of commercial cellobiohydrolase treatment on fiber strength and morphology of bleached hardwood pulp 10th EWLP, Stockholm, Sweden, August 25â€“28, 2008. Holzforschung, 2009, 63, 731-736.	1.9	18
49	High-Throughput Tailoring of Nanocellulose Films: From Complex Bio-Based Materials to Defined Multifunctional Architectures. ACS Applied Bio Materials, 2020, 3, 7428-7438.	4.6	18
50	Production of High-Solid-Content Fire-Retardant Phosphorylated Cellulose Microfibrils. ACS Sustainable Chemistry and Engineering, 2021, 9, 12365-12375.	6.7	18
51	Enhancing the Stability of Aqueous Dispersions and Foams Comprising Cellulose Nanofibrils (CNF) with CaCO3 Particles. Nanomaterials, 2018, 8, 651.	4.1	17
52	Recovery of Gold from Chloride Solution by TEMPO-Oxidized Cellulose Nanofiber Adsorbent. Sustainability, 2019, 11, 1406.	3.2	17
53	Low-temperature atomic layer deposition of SiO ₂ /Al ₂ O ₃ multilayer structures constructed on self-standing films of cellulose nanofibrils. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170037.	3.4	15
54	Nanocellulose-based mechanically stable immobilization matrix for enhanced ethylene production: a framework for photosynthetic solid-state cell factories. Green Chemistry, 2021, 23, 3715-3724.	9.0	15

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55	All-Printed Transistors on Nano Cellulose Substrate. MRS Advances, 2016, 1, 645-650.	0.9	13
56	Submicron hierarchy of cellulose nanofibril films with etherified hemicelluloses. Carbohydrate Polymers, 2017, 177, 126-134.	10.2	13
57	Bubble Attachment to Cellulose and Silica Surfaces of Varied Surface Energies: Wetting Transition and Implications in Foam Forming. Langmuir, 2020, 36, 7296-7308.	3.5	13
58	Functionalized Nanocellulose/Multiwalled Carbon Nanotube Composites for Electrochemical Applications. ACS Applied Nano Materials, 2021, 4, 5842-5853.	5.0	13
59	Structural distinction due to deposition method in ultrathin films of cellulose nanofibres. Cellulose, 2018, 25, 1715-1724.	4.9	12
60	Upcycling Poultry Feathers with (Nano)cellulose: Sustainable Composites Derived from Nonwoven Whole Feather Preforms. ACS Sustainable Chemistry and Engineering, 2020, 8, 14263-14267.	6.7	11
61	Tuning the Porosity, Water Interaction, and Redispersion of Nanocellulose Hydrogels by Osmotic Dehydration. ACS Applied Polymer Materials, 2022, 4, 24-28.	4.4	11
62	Effects of charge ratios of xylan-poly(allylamine hydrochloride) complexes on their adsorption onto different surfaces. Cellulose, 2015, 22, 2955-2970.	4.9	10
63	Study of xylan and cellulose interactions monitored with solid-state NMR and QCM-D. Holzforschung, 2020, 74, 643-653.	1.9	9
64	Highâ€Resolution Patterned Biobased Thin Films via Selfâ€Assembled Carbohydrate Block Copolymers and Nanocellulose. Advanced Materials Interfaces, 2020, 7, 1901737.	3.7	9
65	Humidity Response of Cellulose Thin Films. Biomacromolecules, 2022, 23, 1148-1157.	5.4	9
66	Nanocellulose Films and Barriers. Materials and Energy, 2014, , 213-229.	0.1	8
67	UV-ozone patterning of micro-nano fibrillated cellulose (MNFC) with alkylsilane self-assembled monolayers. Cellulose, 2016, 23, 1847-1857.	4.9	8
68	Pilot-scale modification of polyethersulfone membrane with a size and charge selective nanocellulose layer. Separation and Purification Technology, 2022, 285, 120341.	7.9	8
69	Vapour-assisted roll-to-roll nanoimprinting of micropillars on nanocellulose films. Microelectronic Engineering, 2020, 225, 111258.	2.4	6
70	The influence of dissolved substances on resin adsorption to TMP fine material. Nordic Pulp and Paper Research Journal, 2006, 21, 629-637.	0.7	6
71	Adsorption of Polycation and Anionic Surfactant onto Iron Surfaces and the Inhibition of Carbon Dioxide Corrosion. Journal of Dispersion Science and Technology, 2006, 27, 277-292.	2.4	5
72	Creaming Layers of Nanocellulose Stabilized Water-Based Polystyrene: High-Solids Emulsions for 3D Printing. Frontiers in Chemical Engineering, 2021, 3, .	2.7	4

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73	Crucial Interfacial Features of Nanocellulose Materials. , 2018, , 87-128.		4
74	The ability of PEO to remove model colloidal extractives from solutions with different types of fines. Nordic Pulp and Paper Research Journal, 2004, 19, 59-66.	0.7	3
75	Microscopic Characterization of Nanofibers and Nanocrystals. Materials and Energy, 2014, , 159-180.	0.1	2
76	Multidimensional micro- and nano-printing technologies: general discussion. Faraday Discussions, 2019, 219, 73-76.	3.2	0