Kirsi S Mikkonen

List of Publications by Year
in descending order

73 papers	2,841 citations	126907 33 h-index	189892 50 g-index
76 all docs	76 docs citations	76 times ranked	2682 citing authors

#	Article	IF	Citations
1	Sustainable food-packaging materials based on future biorefinery products: Xylans and mannans. Trends in Food Science and Technology, 2012, 28, 90-102.	15.1	174
2	Prospects of polysaccharide aerogels as modern advanced food materials. Trends in Food Science and Technology, 2013, 34, 124-136.	15.1	132
3	Effect of Polysaccharide Structure on Mechanical and Thermal Properties of Galactomannan-Based Films. Biomacromolecules, 2007, 8, 3198-3205.	5.4	117
4	Transparent, Flexible, and Strong 2,3-Dialdehyde Cellulose Films with High Oxygen Barrier Properties. Biomacromolecules, 2018, 19, 2969-2978.	5.4	109
5	Biocomposites of Nanofibrillated Cellulose, Polypyrrole, and Silver Nanoparticles with Electroconductive and Antimicrobial Properties. Biomacromolecules, 2014, 15, 3655-3663.	5.4	106
6	Films from oat spelt arabinoxylan plasticized with glycerol and sorbitol. Journal of Applied Polymer Science, 2009, 114, 457-466.	2.6	100
7	Spruce galactoglucomannan films show promising barrier properties. Carbohydrate Polymers, 2010, 79, 1107-1112.	10.2	82
8	Carboxymethylation of alkali extracted xylan for preparation of bio-based packaging films. Carbohydrate Polymers, 2014, 100, 89-96.	10.2	80
9	Mannans as stabilizers of oil-in-water beverage emulsions. LWT - Food Science and Technology, 2009, 42, 849-855.	5.2	74
10	Rapid and Direct Preparation of Lignin Nanoparticles from Alkaline Pulping Liquor by Mild Ultrasonication. ACS Sustainable Chemistry and Engineering, 2019, 7, 19925-19934.	6.7	71
11	Emulsion characterization via microfluidic devices: A review on interfacial tension and stability to coalescence. Advances in Colloid and Interface Science, 2022, 299, 102541.	14.7	71
12	Bacterial nanoceluloseâ€reinforced arabinoxylan films. Journal of Applied Polymer Science, 2011, 122, 1030-1039.	2.6	68
13	Aerogels as porous structures for food applications: Smart ingredients and novel packaging materials. Food Structure, 2021, 28, 100188.	4.5	62
14	Nanofibrillated cellulose originated from birch sawdust after sequential extractions: a promising polymeric material from waste to films. Cellulose, 2014, 21, 2587-2598.	4.9	61
15	Glucomannan composite films with cellulose nanowhiskers. Cellulose, 2010, 17, 69-81.	4.9	60
16	Effects of Enzymatic Hydrolysis of Fava Bean Protein Isolate by Alcalase on the Physical and Oxidative Stability of Oil-in-Water Emulsions. Journal of Agricultural and Food Chemistry, 2019, 67, 6625-6632.	5.2	59
17	Laccase as a Tool in Building Advanced Ligninâ€Based Materials. ChemSusChem, 2021, 14, 4615-4635.	6.8	59
18	Composite films from spruce galactoglucomannans with microfibrillated spruce wood cellulose. Cellulose, 2011, 18, 713-726.	4.9	58

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19	Arabinoxylan structure affects the reinforcement of films by microfibrillated cellulose. Cellulose, 2012, 19, 467-480.	4.9	54
20	Determination of physical emulsion stabilization mechanisms of wood hemicelluloses via rheological and interfacial characterization. Soft Matter, 2016, 12, 8690-8700.	2.7	50
21	Comparison of novel fungal mycelia strains and sustainable growth substrates to produce humidity-resistant biocomposites. Materials and Design, 2020, 192, 108728.	7.0	46
22	Enzymatic oxidation as a potential new route to produce polysaccharide aerogels. RSC Advances, 2014, 4, 11884.	3.6	44
23	Spruce galactoglucomannans inhibit lipid oxidation in rapeseed oil-in-water emulsions. Food Hydrocolloids, 2016, 58, 255-266.	10.7	42
24	Spruce galactoglucomannans in rapeseed oil-in-water emulsions: Efficient stabilization performance and structural partitioning. Food Hydrocolloids, 2016, 52, 615-624.	10.7	42
25	Strategies for structuring diverse emulsion systems by using wood lignocellulose-derived stabilizers. Green Chemistry, 2020, 22, 1019-1037.	9.0	40
26	Films from Glyoxal-Crosslinked Spruce Galactoglucomannans Plasticized with Sorbitol. International Journal of Polymer Science, 2012, 2012, 1-8.	2.7	39
27	Butylamino-functionalized cellulose nanocrystal films: barrier properties and mechanical strength. RSC Advances, 2015, 5, 15140-15146.	3.6	39
28	Phenolic residues in spruce galactoglucomannans improve stabilization of oil-in-water emulsions. Journal of Colloid and Interface Science, 2018, 512, 536-547.	9.4	39
29	Encapsulation of fish oil in protein aerogel micro-particles. Journal of Food Engineering, 2019, 260, 1-11.	5.2	39
30	Composite films of nanofibrillated cellulose and O-acetyl galactoglucomannan (GGM) coated with succinic esters of GGM showing potential as barrier material in food packaging. Journal of Materials Science, 2015, 50, 3189-3199.	3.7	38
31	Environmentally-compatible alkyd paints stabilized by wood hemicelluloses. Industrial Crops and Products, 2019, 133, 212-220.	5.2	37
32	Specific enzymatic tailoring of wheat arabinoxylan reveals the role of substitution on xylan film properties. Carbohydrate Polymers, 2013, 92, 733-740.	10.2	36
33	Combination of internal and external plasticization of hydroxypropylated birch xylan tailors the properties of sustainable barrier films. European Polymer Journal, 2015, 66, 307-318.	5.4	36
34	Safety considerations of plant polysaccharides for food use: a case study on phenolic-rich softwood galactoglucomannan extract. Food and Function, 2018, 9, 1931-1943.	4.6	33
35	Functionality of spruce galactoglucomannans in oil-in-water emulsions. Food Hydrocolloids, 2019, 86, 154-161.	10.7	33
36	Crosslinking with ammonium zirconium carbonate improves the formation and properties of spruce galactoglucomannan films. Journal of Materials Science, 2013, 48, 4205-4213.	3.7	32

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37	Green Fabrication Approaches of Lignin Nanoparticles from Different Technical Lignins: A Comparison Study. ChemSusChem, 2021, 14, 4718-4730.	6.8	32
38	Insight on Current Advances in Food Science and Technology for Feeding the World Population. Frontiers in Sustainable Food Systems, 2021, 5, .	3.9	32
39	Lignin-Rich PHWE Hemicellulose Extracts Responsible for Extended Emulsion Stabilization. Frontiers in Chemistry, 2019, 7, 871.	3.6	31
40	Mesoporous guar galactomannan based biocomposite aerogels through enzymatic crosslinking. Composites Part A: Applied Science and Manufacturing, 2017, 94, 93-103.	7.6	30
41	Valorization of cereal by-product hemicelluloses: Fractionation and purity considerations. Food Research International, 2022, 151, 110818.	6.2	29
42	Dense and continuous networks of aerial hyphae improve flexibility and shape retention of mycelium composite in the wet state. Composites Part A: Applied Science and Manufacturing, 2022, 152, 106688.	7.6	28
43	Centrifugal fractionation of softwood extracts improves the biorefinery workflow and yields functional emulsifiers. Green Chemistry, 2019, 21, 4691-4705.	9.0	27
44	Spruce galactoglucomannan-stabilized emulsions as essential fatty acid delivery systems for functionalized drinkable yogurt and oat-based beverage. European Food Research and Technology, 2019, 245, 1387-1398.	3.3	23
45	Enrichment and Identification of Ligninâ€“Carbohydrate Complexes in Softwood Extract. ACS Sustainable Chemistry and Engineering, 2020, 8, 11795-11804.	6.7	23
46	An overview of nanoemulsion characterization <i>via</i> atomic force microscopy. Critical Reviews in Food Science and Nutrition, 2022, 62, 4908-4928.	10.3	23
47	Novel nanobiocomposite hydrogels based on sage seed gum-laponite: Physico-chemical and rheological characterization. Carbohydrate Polymers, 2018, 192, 282-290.	10.2	22
48	Polysaccharides as wall materials in spray-dried microencapsulation of bioactive compounds: Physicochemical properties and characterization. Critical Reviews in Food Science and Nutrition, 2023, 63, 6983-7015.	10.3	20
49	The effect of galactose side units and mannan chain length on the macromolecular characteristics of galactomannans. Carbohydrate Polymers, 2011, 86, 1230-1235.	10.2	19
50	Strengthening effect of nanofibrillated cellulose is dependent on enzymatically oxidized polysaccharide gel matrices. European Polymer Journal, 2015, 71, 171-184.	5.4	18
51	Active food packaging through controlled in situ production and release of hexanal. Food Chemistry: X, 2020, 5, 100074.	4.3	18
52	Softwood-based sponge gels. Cellulose, 2016, 23, 3221-3238.	4.9	17
53	Physicochemical and rheo-mechanical properties of titanium dioxide reinforced sage seed gum nanohybrid hydrogel. International Journal of Biological Macromolecules, 2018, 118, 661-670.	7.5	17
54	Time-dependent self-association of spruce galactoglucomannans depends on pH and mechanical shearing. Food Hydrocolloids, 2020, 102, 105607.	10.7	17

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55	Wood cell wall mimicking for composite films of spruce nanofibrillated cellulose with spruce galactoglucomannan and arabinoglucuronoxylan. Journal of Materials Science, 2014, 49, 5043-5055.	3.7	14
56	Active role of lignin in anchoring wood-based stabilizers to the emulsion interface. Green Chemistry, 2021, 23, 9084-9098.	9.0	13
57	Comparison of Microencapsulation Properties of Spruce Galactoglucomannans and Arabic Gum Using a Model Hydrophobic Core Compound. Journal of Agricultural and Food Chemistry, 2010, 58, 981-989.	5.2	12
58	Sensory profile of hemicellulose-rich wood extracts in yogurt models. Cellulose, 2020, 27, 7607-7620.	4.9	11
59	Valorization of Native Soluble and Insoluble Oat Side Streams for Stable Suspensions and Emulsions. Food and Bioprocess Technology, 2021, 14, 751-764.	4.7	11
60	Machine-coated starch-based dispersion coatings prevent mineral oil migration from paperboard. Progress in Organic Coatings, 2016, 99, 173-181.	3.9	10
61	How properties of cellulose acetate films are affected by conditions of iodine-catalyzed acetylation and type of pulp. Cellulose, 2019, 26, 6119-6132.	4.9	10
62	Gut microbiota can utilize prebiotic birch glucuronoxylan in production of short-chain fatty acids in rats. Food and Function, 2022, 13, 3746-3759.	4.6	10
63	Emulsifier Composition of Solid Lipid Nanoparticles (SLN) Affects Mechanical and Barrier Properties of SLNâ€Protein Composite Films. Journal of Food Science, 2019, 84, 3642-3652.	3.1	9
64	Colloidal features of softwood galactoglucomannans-rich extract. Carbohydrate Polymers, 2020, 241, 116368.	10.2	9
65	The Hydrophobicity of Lignocellulosic Fiber Network Can Be Enhanced with Suberin Fatty Acids. Molecules, 2019, 24, 4391.	3.8	7
66	Kraft Processâ€"Formation of Secoisolariciresinol Structures and Incorporation of Fatty Acids in Kraft Lignin. Journal of Agricultural and Food Chemistry, 2021, 69, 5955-5965.	5.2	7
67	Recent Studies on Hemicellulose-Based Blends, Composites and Nanocomposites. Advanced Structured Materials, 2013, , 313-336.	0.5	6
68	Synchrotron Microtomography Reveals the Fine Three-Dimensional Porosity of Composite Polysaccharide Aerogels. Materials, 2017, 10, 871.	2.9	6
69	Spruce Galactoglucomannan-Stabilized Emulsions Enhance Bioaccessibility of Bioactive Compounds. Foods, 2020, 9, 672.	4.3	6
70	Long-Term Physical Stability of Plasticized Hemicellulose Films. BioResources, 2013, 9, .	1.0	4
71	Fungal Cell Biomass From Enzyme Industry as a Sustainable Source of Hydrocolloids. Frontiers in Chemical Engineering, 2020, 2, .	2.7	4
72	Combining cellulose nanofibrils and galactoglucomannans for enhanced stabilization of future food emulsions. Cellulose, 2021, 28, 10485-10500.	4.9	2

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73	Valorization of Urban Street Tree Pruning Residues in Biorefineries by Steam Refining: Conversion Into Fibers, Emulsifiers, and Biogas. Frontiers in Chemistry, 2021, 9, 779609.	3.6	2