

# Mika H Sipponen

## 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.

56  
papers

1,762  
citations

25  
h-index

41  
g-index

64  
ext. papers

2,401  
ext. citations

8.1  
avg. IF

5.8  
L-index

#	Paper	IF	Citations
56	Chemical modification and functionalization of lignin nanoparticles <b>2022</b> , 385-431		1
55	Catalyst-Free Synthesis of Lignin Vitrimers with Tunable Mechanical Properties: Circular Polymers and Recoverable Adhesives. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 57952-57961	9.5	6
54	Modeling and optimization of polyethylene glycol (PEG) addition for cost-efficient enzymatic hydrolysis of lignocellulose. <i>Biochemical Engineering Journal</i> , <b>2021</b> , 167, 107894	4.2	2
53	Lignin-Based Porous Supraparticles for Carbon Capture. <i>ACS Nano</i> , <b>2021</b> , 15, 6774-6786	16.7	13
52	Toward waste valorization by converting bioethanol production residues into nanoparticles and nanocomposite films. <i>Sustainable Materials and Technologies</i> , <b>2021</b> , 28, e00269	5.3	4
51	Self-Standing Lignin-Containing Willow Bark Nanocellulose Films for Oxygen Blocking and UV Shielding. <i>ACS Applied Nano Materials</i> , <b>2021</b> , 4, 2921-2929	5.6	7
50	Solvent-Resistant Lignin-Epoxy Hybrid Nanoparticles for Covalent Surface Modification and High-Strength Particulate Adhesives. <i>ACS Nano</i> , <b>2021</b> , 15, 4811-4823	16.7	30
49	Unravelling the Hydration Barrier of Lignin Oleate Nanoparticles for Acid- and Base-Catalyzed Functionalization in Dispersion State. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 21065-21073	3.6	
48	Unravelling the Hydration Barrier of Lignin Oleate Nanoparticles for Acid- and Base-Catalyzed Functionalization in Dispersion State. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 20897-20905	16.4	13
47	Primary interactions of biomass components during fast pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2021</b> , 159, 105297	6	4
46	Access to tough and transparent nanocomposites via Pickering emulsion polymerization using biocatalytic hybrid lignin nanoparticles as functional surfactants. <i>Green Chemistry</i> , <b>2021</b> , 23, 3001-3014	10	20
45	Multifunctional lignin-based nanocomposites and nanohybrids. <i>Green Chemistry</i> , <b>2021</b> , 23, 6698-6760	10	25
44	Lignin-based smart materials: a roadmap to processing and synthesis for current and future applications. <i>Materials Horizons</i> , <b>2020</b> , 7, 2237-2257	14.4	70
43	Lignin-fatty acid hybrid nanocapsules for scalable thermal energy storage in phase-change materials. <i>Chemical Engineering Journal</i> , <b>2020</b> , 393, 124711	14.7	33
42	Lignin-Inorganic Interfaces: Chemistry and Applications from Adsorbents to Catalysts and Energy Storage Materials. <i>ChemSusChem</i> , <b>2020</b> , 13, 4344-4355	8.3	37
41	Agglomeration of Viruses by Cationic Lignin Particles for Facilitated Water Purification. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2020</b> , 8, 4167-4177	8.3	35
40	Spherical lignin particles: a review on their sustainability and applications. <i>Green Chemistry</i> , <b>2020</b> , 22, 2712-2733	10	114

39	Identifying the primary reactions and products of fast pyrolysis of alkali lignin. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2020</b> , 151, 104917	6	10
38	Three-Dimensional Printed Cell Culture Model Based on Spherical Colloidal Lignin Particles and Cellulose Nanofibril-Alginate Hydrogel. <i>Biomacromolecules</i> , <b>2020</b> , 21, 1875-1885	6.9	38
37	Biocatalytic nanoparticles for the stabilization of degassed single electron transfer-living radical pickering emulsion polymerizations. <i>Nature Communications</i> , <b>2020</b> , 11, 5599	17.4	23
36	Well-Defined Lignin Model Films from Colloidal Lignin Particles. <i>Langmuir</i> , <b>2020</b> , 36, 15592-15602	4	12
35	Sustainable Li-Ion Batteries: Chemistry and Recycling. <i>Advanced Energy Materials</i> , <b>2020</b> , 2003456	21.8	48
34	Lignin for Nano- and Microscaled Carrier Systems: Applications, Trends, and Challenges. <i>ChemSusChem</i> , <b>2019</b> , 12, 2038-2038	8.3	8
33	Natural Shape-Retaining Microcapsules With Shells Made of Chitosan-Coated Colloidal Lignin Particles. <i>Frontiers in Chemistry</i> , <b>2019</b> , 7, 370	5	39
32	Preparation and Characterization of Dentin Phosphoryn-Derived Peptide-Functionalized Lignin Nanoparticles for Enhanced Cellular Uptake. <i>Small</i> , <b>2019</b> , 15, e1901427	11	41
31	Lignin for Nano- and Microscaled Carrier Systems: Applications, Trends, and Challenges. <i>ChemSusChem</i> , <b>2019</b> , 12, 2039-2054	8.3	117
30	Aqueous Ammonia Pre-treatment of Wheat Straw: Process Optimization and Broad Spectrum Dye Adsorption on Nitrogen-Containing Lignin. <i>Frontiers in Chemistry</i> , <b>2019</b> , 7, 545	5	8
29	Strong, Ductile, and Waterproof Cellulose Nanofibril Composite Films with Colloidal Lignin Particles. <i>Biomacromolecules</i> , <b>2019</b> , 20, 693-704	6.9	114
28	Closed cycle production of concentrated and dry redispersible colloidal lignin particles with a three solvent polarity exchange method. <i>Green Chemistry</i> , <b>2018</b> , 20, 843-850	10	53
27	Enzymatically and chemically oxidized lignin nanoparticles for biomaterial applications. <i>Enzyme and Microbial Technology</i> , <b>2018</b> , 111, 48-56	3.8	45
26	Biochemical and sensory characteristics of the cricket and mealworm fractions from supercritical carbon dioxide extraction and air classification. <i>European Food Research and Technology</i> , <b>2018</b> , 244, 19-29	3.4	17
25	Eco-friendly Flame-Retardant Cellulose Nanofibril Aerogels by Incorporating Sodium Bicarbonate. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 27407-27415	9.5	60
24	Elucidating enzymatic polymerisations: Chain-length selectivity of <i>Candida antarctica</i> lipase B towards various aliphatic diols and dicarboxylic acid diesters. <i>European Polymer Journal</i> , <b>2018</b> , 106, 79-84	5.2	30
23	Spatially confined lignin nanospheres for biocatalytic ester synthesis in aqueous media. <i>Nature Communications</i> , <b>2018</b> , 9, 2300	17.4	78
22	Use of air classification technology to produce protein-enriched barley ingredients. <i>Journal of Food Engineering</i> , <b>2018</b> , 222, 169-177	6	16

21	Understanding Lignin Aggregation Processes. A Case Study: Budesonide Entrapment and Stimuli Controlled Release from Lignin Nanoparticles. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2018</b> , 6, 9342-9351	8.3	98
20	Fractionation process for the protective isolation of ergosterol and trehalose from microbial biomass. <i>Process Biochemistry</i> , <b>2017</b> , 58, 217-223	4.8	9
19	All-lignin approach to prepare cationic colloidal lignin particles: stabilization of durable Pickering emulsions. <i>Green Chemistry</i> , <b>2017</b> , 19, 5831-5840	10	79
18	Calcium Chelation of Lignin from Pulping Spent Liquor for Water-Resistant Slow-Release Urea Fertilizer Systems. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2017</b> , 5, 1054-1061	8.3	35
17	Structural changes of lignin in biorefinery pretreatments and consequences to enzyme-lignin interactions - OPEN ACCESS. <i>Nordic Pulp and Paper Research Journal</i> , <b>2017</b> , 32, 550-571	1.1	29
16	Weighing the factors behind enzymatic hydrolyzability of pretreated lignocellulose. <i>Green Chemistry</i> , <b>2016</b> , 18, 1295-1305	10	97
15	Hydrothermal Liquefaction of Softwood: Selective Chemical Production Under Oxidative Conditions. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2016</b> , 4, 3978-3984	8.3	12
14	Rate-constraining changes in surface properties, porosity and hydrolysis kinetics of lignocellulose in the course of enzymatic saccharification. <i>Biotechnology for Biofuels</i> , <b>2016</b> , 9, 18	7.8	17
13	Integrating the opposites of biofuel production: absorption of short-chain alcohols into oleaginous yeast cells for butanol recovery and wet-extraction of microbial oil. <i>Green Chemistry</i> , <b>2016</b> , 18, 2775-2781	10	2
12	Structural diversity in metal-organic nanoparticles based on iron isopropoxide treated lignin. <i>RSC Advances</i> , <b>2016</b> , 6, 31790-31796	3.7	31
11	The effect of direct and counter-current flow-through delignification on enzymatic hydrolysis of wheat straw, and flow limits due to compressibility. <i>Biotechnology and Bioengineering</i> , <b>2016</b> , 113, 2605-2613	4.9	3
10	Effects of Catalysts and pH on Lignin in Partial Wet Oxidation of Wood and Straw Black Liquors. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2015</b> , 54, 7833-7840	3.9	9
9	Effect of xylan structure on reactivity in graft copolymerization and subsequent binding to cellulose. <i>Biomacromolecules</i> , <b>2015</b> , 16, 1102-11	6.9	6
8	Yield optimization and rational function modelling of enzymatic hydrolysis of wheat straw pretreated by NaOH-delignification, autohydrolysis and their combination. <i>Green Chemistry</i> , <b>2015</b> , 17, 1683-1691	10	21
7	Enzymatic saccharification of pretreated wheat straw: comparison of solids-recycling, sequential hydrolysis and batch hydrolysis. <i>Bioresource Technology</i> , <b>2014</b> , 153, 15-22	11	23
6	Autohydrolysis and aqueous ammonia extraction of wheat straw: effect of treatment severity on yield and structure of hemicellulose and lignin. <i>RSC Advances</i> , <b>2014</b> , 4, 23177-23184	3.7	23
5	Determination of surface-accessible acidic hydroxyls and surface area of lignin by cationic dye adsorption. <i>Bioresource Technology</i> , <b>2014</b> , 169, 80-87	11	33
4	Impact of ball milling on maize ( <i>Zea mays</i> L.) stem structural components and on enzymatic hydrolysis of carbohydrates. <i>Industrial Crops and Products</i> , <b>2014</b> , 61, 130-136	5.9	17

3	Reduction of surface area of lignin improves enzymatic hydrolysis of cellulose from hydrothermally pretreated wheat straw. <i>RSC Advances</i> , <b>2014</b> , 4, 36591-36596	3.7	11
2	Isolation of structurally distinct lignin-carbohydrate fractions from maize stem by sequential alkaline extractions and endoglucanase treatment. <i>Bioresource Technology</i> , <b>2013</b> , 133, 522-8	11	20
1	Increased water resistance of CTMP fibers by oat ( <i>Avena sativa</i> L.) husk lignin. <i>Biomacromolecules</i> , <b>2010</b> , 11, 3511-8	6.9	10