Jukka V SeppÃ¤lÃ¤

List of Publications by Year
in descending order

118 papers	5,339 citations	76196 40 h-index	95083 68 g-index
126 all docs	126 docs citations	126 times ranked	6978 citing authors

#	Article	IF	Citations
1	A Fast Method to Produce Strong NFC Films as a Platform for Barrier and Functional Materials. ACS Applied Materials & Interfaces, 2013, 5, 4640-4647.	4.0	270
2	Preparation of poly(Îµ-caprolactone)-based tissue engineering scaffolds by stereolithography. Acta Biomaterialia, 2011, 7, 3850-3856.	4.1	263
3	Stable, self-healing hydrogels from nanofibrillated cellulose, poly(vinyl alcohol) and borax via reversible crosslinking. European Polymer Journal, 2014, 56, 105-117.	2.6	250
4	Graphene/cellulose nanocomposite paper with high electrical and mechanical performances. Journal of Materials Chemistry, 2011, 21, 13991.	6.7	240
5	Enhanced mechanical and electrical properties of polyimide film by graphene sheets via in situ polymerization. Polymer, 2011, 52, 5237-5242.	1.8	213
6	Biodegradable and bioactive porous scaffold structures prepared using fused deposition modeling. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2013, 101B, 610-619.	1.6	198
7	Free radical graft copolymerization of nanofibrillated cellulose with acrylic monomers. Carbohydrate Polymers, 2011, 84, 1039-1047.	5.1	161
8	Synthesis of polylactides in the presence of co-initiators with different numbers of hydroxyl groups. Polymer, 2001, 42, 7541-7549.	1.8	146
9	Flocculation of microfibrillated cellulose in shear flow. Cellulose, 2012, 19, 1807-1819.	2.4	144
10	Effect of Moisture on Electrospun Nanofiber Composites of Poly(vinyl alcohol) and Cellulose Nanocrystals. Biomacromolecules, 2010, 11, 2471-2477.	2.6	138
11	Development of nanocellulose scaffolds with tunable structures to support 3D cell culture. Carbohydrate Polymers, 2016, 148, 259-271.	5.1	116
12	Processable polyaniline suspensions through in situ polymerization onto nanocellulose. European Polymer Journal, 2013, 49, 335-344.	2.6	107
13	Flocculated flow of microfibrillated cellulose water suspensions: an imaging approach for characterisation of rheological behaviour. Cellulose, 2012, 19, 647-659.	2.4	103
14	Three-dimensional fabrication of cell-laden biodegradable poly(ethylene glycol-co-depsipeptide) hydrogels by visible light stereolithography. Journal of Materials Chemistry B, 2015, 3, 8348-8358.	2.9	99
15	Cross-Linked Poly(-caprolactone/D,L-lactide) Copolymers with Elastic Properties. Macromolecular Chemistry and Physics, 2002, 203, 2630-2639.	1.1	89
16	Polymeric drug delivery systems by additive manufacturing. Advanced Drug Delivery Reviews, 2021, 173, 349-373.	6.6	86
17	Porous 3D modeled scaffolds of bioactive glass and photocrosslinkable poly(Îµ-caprolactone) by stereolithography. Composites Science and Technology, 2013, 74, 99-106.	3.8	85
18	Surface functionalization of nanofibrillated cellulose using click-chemistry approach in aqueous media. Cellulose, 2011, 18, 1201.	2.4	83

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19	Nanofibrillated cellulose/carboxymethyl cellulose composite with improved wet strength. Cellulose, 2013, 20, 1459-1468.	2.4	71
20	Aligned Chitosan-Gelatin Cryogel-Filled Polyurethane Nerve Guidance Channel for Neural Tissue Engineering: Fabrication, Characterization, and In Vitro Evaluation. Biomacromolecules, 2019, 20, 662-673.	2.6	69
21	Functional Graphene by Thiolâ€ene Click Chemistry. Chemistry - A European Journal, 2015, 21, 3183-3186.	1.7	66
22	Electrically conductive nanocellulose/graphene composites exhibiting improved mechanical properties in high-moisture condition. Cellulose, 2015, 22, 1799-1812.	2.4	64
23	Biomimetic Photocurable Three-Dimensional Printed Nerve Guidance Channels with Aligned Cryomatrix Lumen for Peripheral Nerve Regeneration. ACS Applied Materials & Interfaces, 2018, 10, 43327-43342.	4.0	62
24	The effect of wall depletion on the rheology of microfibrillated cellulose water suspensions by optical coherence tomography. Cellulose, 2014, 21, 1261-1275.	2.4	61
25	Effect of cationic polymethacrylates on the rheology and flocculation of microfibrillated cellulose. Cellulose, 2011, 18, 1381-1390.	2.4	59
26	Synthesis and characterization of castor oil-segmented thermoplastic polyurethane with controlled mechanical properties. European Polymer Journal, 2016, 81, 129-137.	2.6	59
27	Synthesis, characterization and crosslinking of functional star-shaped poly(Îµ-caprolactone). Polymer International, 2002, 51, 92-100.	1.6	58
28	Network formation of nanofibrillated cellulose in solution blended poly(methyl methacrylate) composites. Carbohydrate Polymers, 2013, 91, 183-190.	5.1	56
29	Structure modification and crosslinking of methacrylated polylactide oligomers. Journal of Applied Polymer Science, 2002, 86, 3616-3624.	1.3	52
30	Degradable Polyesters through Chain Linking for Packaging and Biomedical Applications. Macromolecular Bioscience, 2004, 4, 208-217.	2.1	52
31	Crosslinked nanofibrillated cellulose: poly(acrylic acid) nanocomposite films; enhanced mechanical performance in aqueous environments. Cellulose, 2013, 20, 2991-3005.	2.4	52
32	Crosslinked poly(ester anhydride)s based on poly(Îµ-caprolactone) and polylactide oligomers. Journal of Polymer Science Part A, 2003, 41, 3788-3797.	2.5	50
33	Direct ink writing of aloe vera/cellulose nanofibrils bio-hydrogels. Carbohydrate Polymers, 2021, 266, 118114.	5.1	50
34	Effect of interfibrillar PVA bridging on water stability and mechanical properties of TEMPO/NaClO2 oxidized cellulosic nanofibril films. Carbohydrate Polymers, 2015, 126, 78-82.	5.1	48
35	Modification of dextran using click-chemistry approach in aqueous media. Carbohydrate Polymers, 2010, 82, 78-82.	5.1	45
36	Synthesis and evaluation of partly fluorinated polyelectrolytes as components in 19F MRI-detectable nanoparticles. Polymer Chemistry, 2010, 1, 1039.	1.9	45

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37	Fabrication of graphene-based 3D structures by stereolithography. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 982-985.	0.8	45
38	Low surface area graphene/cellulose composite as a host matrix for lithium sulphur batteries. Journal of Power Sources, 2014, 254, 55-61.	4.0	44
39	Selfâ€Assembly of Amphiphilic Janus Dendrimers into Mechanically Robust Supramolecular Hydrogels for Sustained Drug Release. Chemistry - A European Journal, 2015, 21, 14433-14439.	1.7	43
40	Fabrication of Polylactideâ€Based Biodegradable Thermoset Scaffolds for Tissue Engineering Applications. Macromolecular Materials and Engineering, 2013, 298, 45-52.	1.7	42
41	3D scaffolding of fast photocurable polyurethane for soft tissue engineering by stereolithography: Influence of materials and geometry on growth of fibroblast cells. European Polymer Journal, 2020, 139, 109988.	2.6	39
42	Nanofibrillated cellulose, poly(vinyl alcohol), montmorillonite clay hybrid nanocomposites with superior barrier and thermomechanical properties. Polymer Composites, 2014, 35, 1117-1131.	2.3	38
43	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.	1.7	38
44	Selective Laser Sintering of Lignin-Based Composites. ACS Sustainable Chemistry and Engineering, 2021, 9, 2727-2735.	3.2	36
45	Ascorbic acid-loaded polyvinyl alcohol/cellulose nanofibril hydrogels as precursors for 3D printed materials. Materials Science and Engineering C, 2021, 130, 112424.	3.8	35
46	Thermoresponsive xylan hydrogels via copper-catalyzed azide-alkyne cycloaddition. Carbohydrate Polymers, 2014, 102, 637-644.	5.1	34
47	Biodegradable photocrosslinkable poly(depsipeptideâ€coâ€Îµâ€caprolactone) for tissue engineering: Synthesis, characterization, and In vitro evaluation. Journal of Polymer Science Part A, 2014, 52, 3307-3315.	2.5	33
48	Ductile nanocellulose-based films with high stretchability and tear resistance. European Polymer Journal, 2015, 69, 328-340.	2.6	32
49	Exfoliated clay nanocomposites of renewable long-chain aliphatic polyamide through in-situ polymerization. Composites Part B: Engineering, 2021, 211, 108655.	5.9	31
50	Highly active platinum nanoparticles supported by nitrogen/sulfur functionalized graphene composite for ethanol electro-oxidation. Electrochimica Acta, 2017, 242, 315-326.	2.6	30
51	Additive Manufacturing of Bioactive Poly(trimethylene carbonate)/Î²-Tricalcium Phosphate Composites for Bone Regeneration. Biomacromolecules, 2020, 21, 366-375.	2.6	30
52	Photocrosslinkable Polyesters and Poly(ester anhydride)s for Biomedical Applications. Macromolecular Bioscience, 2011, 11, 1647-1652.	2.1	29
53	Redefining polyamide property profiles via renewable long-chain aliphatic segments: Towards impact resistance and low water absorption. European Polymer Journal, 2018, 109, 16-25.	2.6	28
54	3D printing and properties of cellulose nanofibrils-reinforced quince seed mucilage bio-inks. International Journal of Biological Macromolecules, 2021, 192, 1098-1107.	3.6	27

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55	Photo-Cross-Linked Biodegradable Poly(Ester Anhydride) Networks Prepared from Alkenylsuccinic Anhydride Functionalized Poly(Îµ-caprolactone) Precursors. Biomacromolecules, 2011, 12, 2806-2814.	2.6	26
56	High-resolution 3D printing of xanthan gum/nanocellulose bio-inks. International Journal of Biological Macromolecules, 2022, 209, 2020-2031.	3.6	26
57	Novel thiol- amine- and amino acid functional xylan derivatives synthesized by thiolâ€“ene reaction. Carbohydrate Polymers, 2015, 131, 392-398.	5.1	25
58	Continuous propionic acid production with Propionibacterium acidipropionici immobilized in a novel xylan hydrogel matrix. Bioresource Technology, 2015, 197, 1-6.	4.8	24
59	Modifying the flocculation of microfibrillated cellulose suspensions by soluble polysaccharides under conditions unfavorable to adsorption. Carbohydrate Polymers, 2014, 106, 283-292.	5.1	23
60	The vane method and kinetic modeling: shear rheology of nanofibrillated cellulose suspensions. Cellulose, 2014, 21, 3913-3925.	2.4	23
61	Renewable polyamides via thiol-ene â€˜clickâ€™ chemistry and long-chain aliphatic segments. Polymer, 2018, 153, 183-192.	1.8	23
62	Improved Bone Regeneration in Rabbit Bone Defects Using 3D Printed Composite Scaffolds Functionalized with Osteoinductive Factors. ACS Applied Materials & Interfaces, 2020, 12, 48340-48356.	4.0	23
63	Synthesis of poly(ester-anhydride)s based on poly(Îµ-caprolactone) prepolymer. Journal of Applied Polymer Science, 2001, 81, 176-185.	1.3	22
64	Synthesis and Hydrolysis Behaviour of Poly(ester anhydrides) from Polylactone Precursors Containing Alkenyl Moieties. Macromolecular Bioscience, 2006, 6, 496-505.	2.1	22
65	Drug-releasing biopolymeric structures manufactured via stereolithography. Biomedical Physics and Engineering Express, 2019, 5, 025008.	0.6	22
66	On Laccase-Catalyzed Polymerization of Biorefinery Lignin Fractions and Alignment of Lignin Nanoparticles on the Nanocellulose Surface via One-Pot Water-Phase Synthesis. ACS Sustainable Chemistry and Engineering, 2021, 9, 8770-8782.	3.2	22
67	The Effect of Pure Component Characteristic Parameters on Sanchezâ€“Lacombe Equationâ€ofâ€State Predictive Capabilities. Macromolecular Reaction Engineering, 2013, 7, 193-204.	0.9	21
68	Manipulation of cellulose nanocrystal surface sulfate groups toward biomimetic nanostructures in aqueous media. Carbohydrate Polymers, 2015, 126, 23-31.	5.1	21
69	Graphene Family Nanomaterials in Ocular Applications: Physicochemical Properties and Toxicity. Chemical Research in Toxicology, 2021, 34, 1386-1402.	1.7	21
70	Synthesis of Poly(ester-anhydrides) Based on Different Polyester Precursors. Macromolecular Chemistry and Physics, 2004, 205, 937-945.	1.1	20
71	Effect of rheological properties of dissolved cellulose/microfibrillated cellulose blend suspensions on film forming. Carbohydrate Polymers, 2015, 119, 62-70.	5.1	20
72	Injectable thiol-ene hydrogel of galactoglucomannan and cellulose nanocrystals in delivery of therapeutic inorganic ions with embedded bioactive glass nanoparticles. Carbohydrate Polymers, 2022, 276, 118780.	5.1	20

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73	Porous Biodegradable Scaffold: Predetermined Porosity by Dissolution of Poly(esterâ€anhydride) Fibers from Polyester Matrix. Macromolecular Bioscience, 2009, 9, 654-660.	2.1	19
74	Cyclodextrin-Functionalized Fiber Yarns Spun from Deep Eutectic Cellulose Solutions for Nonspecific Hormone Capture in Aqueous Matrices. Biomacromolecules, 2018, 19, 652-661.	2.6	19
75	Hydrophobicities of poly(Îµ-caprolactone) oligomers functionalized with different succinic anhydrides. European Polymer Journal, 2009, 45, 557-564.	2.6	18
76	Liquid crystalline thermosets based on anisotropic phases of cellulose nanocrystals. Cellulose, 2013, 20, 2569-2582.	2.4	18
77	Characterization of physical aging by time-resolved rheometry: fundamentals and application to bituminous binders. Rheologica Acta, 2018, 57, 745-756.	1.1	18
78	3D inkjet-printing of photo-crosslinkable resins for microlens fabrication. Additive Manufacturing, 2022, 50, 102534.	1.7	18
79	Pancreatin enhanced erosion of and macromolecule release from 2,2-bis(2-oxazoline)-linked poly(Îµ-caprolactone). Journal of Controlled Release, 2003, 86, 213-222.	4.8	17
80	Osteoblast response to continuous phase macroporous scaffolds under static and dynamic culture conditions. Journal of Biomedical Materials Research - Part A, 2009, 89A, 317-325.	2.1	17
81	Developing Advanced Functional Polymers for Biomedical Applications. Biomacromolecules, 2020, 21, 273-275.	2.6	17
82	Mechanical behavior, structure, and reinforcement processes of TEMPOâ€oxidized cellulose reinforced poly(lactic) acid. Polymer Composites, 2013, 34, 173-179.	2.3	16
83	An in vitro study of composites of poly(L-lactide-co-Îµ-caprolactone), Î²-tricalcium phosphate and ciprofloxacin intended for local treatment of osteomyelitis. Biomatter, 2013, 3, e23162.	2.6	16
84	A comprehensive thermodynamic study of heat stable acetic acid salt of monoethanolamine. International Journal of Greenhouse Gas Control, 2014, 22, 313-324.	2.3	16
85	Mechanical Properties of Ultraviolet-Assisted Paste Extrusion and Postextrusion Ultraviolet-Curing of Three-Dimensional Printed Biocomposites. 3D Printing and Additive Manufacturing, 2019, 6, 127-137.	1.4	16
86	Exosome-Functionalized Ceramic Bone Substitute Promotes Critical-Sized Bone Defect Repair in Rats. ACS Applied Bio Materials, 2021, 4, 3716-3726.	2.3	16
87	Ultra-thin films of cationic amphiphilic poly(2-(dimethylamino)ethyl methacrylate) based block copolymers as surface wettability modifiers. Polymer, 2009, 50, 5250-5261.	1.8	14
88	Photocrosslinked poly(ester anhydride)s for peptide delivery: Effect of oligomer hydrophobicity on PYY3-36 delivery. European Journal of Pharmaceutics and Biopharmaceutics, 2012, 80, 33-38.	2.0	14
89	An empirical constitutive model for complex glass-forming liquids using bitumen as a model material. Rheologica Acta, 2018, 57, 57-70.	1.1	14
90	Enhanced mechanical and thermal properties of polyurethane/functionalised graphene oxide composites by in situ polymerisation. Plastics, Rubber and Composites, 2019, 48, 466-476.	0.9	14

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91	Multiscale Structural Characterization of Biocompatible Poly(trimethylene carbonate) Photoreticulated Networks. ACS Applied Polymer Materials, 2019, 1, 1811-1820.	2.0	14
92	Tailor-made hemicellulose-based hydrogels reinforced with nanofibrillated cellulose. Nordic Pulp and Paper Research Journal, 2015, 30, 373-384.	0.3	13
93	Highâ€Performance and Biobased Polyamide/Functionalized Graphene Oxide Nanocomposites through In Situ Polymerization for Engineering Applications. Macromolecular Materials and Engineering, 2021, 306, 2100255.	1.7	12
94	Synthesis and solution rheology of poly[(stearyl methacrylate)-stat-([2-(methacryloyloxy)ethyl]) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	5.0	11
95	Characterization of internal structure, polymer erosion and drug release mechanisms of biodegradable poly(ester anhydride)s by X-ray microtomography. European Journal of Pharmaceutical Sciences, 2012, 47, 170-178.	1.9	11
96	Hydrolysis and drug release from poly(ethylene glycol)-modified lactone polymers with open porosity. European Polymer Journal, 2019, 113, 165-175.	2.6	11
97	Multiscale structural characterization of biocompatible poly(trimethylene carbonate) networks photo-cross-linked in a solvent. Polymer Testing, 2020, 90, 106740.	2.3	10
98	Effect of Xylan Structure on Reactivity in Graft Copolymerization and Subsequent Binding to Cellulose. Biomacromolecules, 2015, 16, 1102-1111.	2.6	9
99	Conductive polyurethane/PEGylated graphene oxide composite for 3D-printed nerve guidance conduits. European Polymer Journal, 2022, 167, 111068.	2.6	9
100	Phenylsilane; unreactive group in the metallocene/MAO catalyzed copolymerization of propylene and 7-octenyldimethylphenylsilane, reactive group in melt blending with microsilica filler. European Polymer Journal, 2009, 45, 1179-1189.	2.6	8
101	Blending cellulose with polyethylene-co-acrylic acid in alkaline water suspension. Cellulose, 2012, 19, 661-669.	2.4	8
102	The effect of MWCNTs on molar mass in in situ polymerization of styrene and methyl methacrylate. European Polymer Journal, 2012, 48, 1516-1524.	2.6	7
103	Functional Polyolefins Through Polymerizations by Using Bis(indenyl) Zirconium Catalysts. Advances in Polymer Science, 2013, , 179-232.	0.4	7
104	Novel long-chain aliphatic polyamide/surface-modified silicon dioxide nanocomposites: in-situ polymerization and properties. Materials Today Chemistry, 2021, 20, 100450.	1.7	7
105	Preparation and properties of cellulose/PE-co-AA blends. European Polymer Journal, 2012, 48, 1439-1445.	2.6	6
106	Hydrolysis behaviour of crosslinked poly(ester anhydride) networks prepared from functionalised poly(Îµ-caprolactone) precursors. Reactive and Functional Polymers, 2013, 73, 11-17.	2.0	6
107	Patientâ€Specific Bioimplants and Reconstruction Plates for Mandibular Defects: Production Workflow and In Vivo Large Animal Model Study. Macromolecular Bioscience, 2022, 22, e2100398.	2.1	6
108	Cellulose/acrylic acid copolymer blends for films and coating applications. Journal of Applied Polymer Science, 2014, 131, .	1.3	5

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109	Composite bilayered scaffolds with bio-functionalized ceramics for cranial bone defects: An in vivo evaluation. Multifunctional Materials, 2019, 2, 014002.	2.4	5
110	Native Structure of the Plant Cell Wall Utilized for Topâ€Down Assembly of Aligned Cellulose Nanocrystals into Micrometerâ€Sized Nanoporous Particles. Macromolecular Rapid Communications, 2020, 41, 2000201.	2.0	5
111	3D-Printed Thermoset Biocomposites Based on Forest Residues by Delayed Extrusion of Cold Masterbatch (DECMA). ACS Sustainable Chemistry and Engineering, 2021, 9, 13979-13987.	3.2	5
112	Photo-crosslinked anhydride-modified polyester and â€“ethers for pH-sensitive drug release. European Journal of Pharmaceutics and Biopharmaceutics, 2020, 150, 33-42.	2.0	4
113	Elastic Ceramic-Polymer Scaffold with Interconnected Pore Structure: Preparation and In Vitro Reactivity. Key Engineering Materials, 2007, 361-363, 395-398.	0.4	3
114	Lewis acidic polypropylene for compatibilization of polypropylene/microsilica composites. Polymer Composites, 2011, 32, 1835-1841.	2.3	2
115	Preparation and Enzymatic Degradation of Porous Crosslinked Polylactides of Biomass Origin. International Journal of Molecular Sciences, 2014, 15, 9793-9808.	1.8	2
116	Enzymatically fibrillated cellulose pulp-based monofilaments spun from water; enhancement of mechanical properties and water stability. Cellulose, 2017, 24, 871-887.	2.4	2
117	Reduced graphene oxide integrated poly(ionic liquid) functionalized nano-fibrillated cellulose composite paper with improved toughness, ductility and hydrophobicity. Materials Advances, 2021, 2, 948-952.	2.6	2
118	Tailor-made hemicellulose-based hydrogels reinforced with nanofibrillated cellulose for the removal of chromium ions from aqueous solutions. Nordic Pulp and Paper Research Journal, 2015, 30, 369-372.	0.3	1