Stephen J Eichhorn

List of Publications by Year
in descending order

81	8,531	61984 43	64796 79
papers	citations	h-index	g-index

81	81	81	9212
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Elastic Modulus and Stress-Transfer Properties of Tunicate Cellulose Whiskers. Biomacromolecules, 2005, 6, 1055-1061.	5.4	841
2	Cellulose nanowhiskers: promising materials for advanced applications. Soft Matter, 2011, 7, 303-315.	2.7	732
3	Current characterization methods for cellulose nanomaterials. Chemical Society Reviews, 2018, 47, 2609-2679.	38.1	690
4	Structureâ€"propertyâ€"function relationships of natural and engineered wood. Nature Reviews Materials, 2020, 5, 642-666.	48.7	616
5	Isolation and characterization of microcrystalline cellulose from oil palm biomass residue. Carbohydrate Polymers, 2013, 93, 628-634.	10.2	335
6	An estimation of the Youngâ€™s modulus of bacterial cellulose filaments. Cellulose, 2008, 15, 507-513.	4.9	322
7	Bioinspired Mechanically Adaptive Polymer Nanocomposites with Water-Activated Shape-Memory Effect. Macromolecules, 2011, 44, 6827-6835.	4.8	301
8	Statistical geometry of pores and statistics of porous nanofibrous assemblies. Journal of the Royal Society Interface, 2005, 2, 309-318.	3.4	288
9	An artificial biomineral formed by incorporation of copolymer micelles in calcite crystals. Nature Materials, 2011, 10, 890-896.	27.5	248
10	The Young's modulus of a microcrystalline cellulose. Cellulose, 2001, 8, 197-207.	4.9	224
11	Effective Youngâ€™s Modulus of Bacterial and Microfibrillated Cellulose Fibrils in Fibrous Networks. Biomacromolecules, 2012, 13, 1340-1349.	5.4	189
12	Supercapacitance from Cellulose and Carbon Nanotube Nanocomposite Fibers. ACS Applied Materials & Interfaces, 2013, 5, 9983-9990.	8.0	183
13	Surface only modification of bacterial cellulose nanofibres with organic acids. Cellulose, 2011, 18, 595-605.	4.9	177
14	Carbon nanofibres produced from electrospun cellulose nanofibres. Carbon, 2013, 58, 66-75.	10.3	147
15	Modelling the crystalline deformation of native and regenerated cellulose. Cellulose, 2006, 13, 291-307.	4.9	142
16	Composite micromechanics of hemp fibres and epoxy resin microdroplets. Composites Science and Technology, 2004, 64, 767-772.	7.8	126
17	Directing the Morphology and Differentiation of Skeletal Muscle Cells Using Oriented Cellulose Nanowhiskers. Biomacromolecules, 2010, 11, 2498-2504.	5.4	125
18	Bioâ€Inspired Synthesis and Mechanical Properties of Calciteâ€"Polymer Particle Composites. Advanced Materials, 2010, 22, 2082-2086.	21.0	122

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19	Stress Transfer in Cellulose Nanowhisker Compositesâ€"Influence of Whisker Aspect Ratio and Surface Charge. Biomacromolecules, 2011, 12, 1363-1369.	5.4	117
20	Relationships between specific surface area and pore size in electrospun polymer fibre networks. Journal of the Royal Society Interface, 2010, 7, 641-649.	3.4	114
21	Modeling Crystal and Molecular Deformation in Regenerated Cellulose Fibers. Biomacromolecules, 2005, 6, 507-513.	5.4	111
22	Stress-Transfer in Anisotropic and Environmentally Adaptive Cellulose Whisker Nanocomposites. Biomacromolecules, 2010, 11, 762-768.	5.4	106
23	Influence of Magnetic Field Alignment of Cellulose Whiskers on the Mechanics of All-Cellulose Nanocomposites. Biomacromolecules, 2012, 13, 2528-2536.	5.4	105
24	Oriented surfaces of adsorbed cellulose nanowhiskers promote skeletal muscle myogenesis. Acta Biomaterialia, 2013, 9, 4707-4715.	8.3	105
25	Optimization of the Mechanical Performance of Bacterial Cellulose/Poly(<scp>l</scp>-lactic) Acid Composites. ACS Applied Materials & Interfaces, 2010, 2, 321-330.	8.0	101
26	Deformation mechanisms in polymer fibres and nanocomposites. Polymer, 2007, 48, 2-18.	3.8	95
27	The Effective Youngâ€™s Modulus of Carbon Nanotubes in Composites. ACS Applied Materials & Interfaces, 2011, 3, 433-440.	8.0	91
28	Jet deposition in near-field electrospinning of patterned polycaprolactone and sugar-polycaprolactone coreâ€"shell fibres. Polymer, 2011, 52, 3603-3610.	3.8	68
29	Iceâ€Templated, Sustainable Carbon Aerogels with Hierarchically Tailored Channels for Sodiumâ€•and Potassiumâ€Ion Batteries. Advanced Functional Materials, 2022, 32, .	14.9	67
30	Deformation micromechanics of natural cellulose fibre networks and composites. Composites Science and Technology, 2003, 63, 1225-1230.	7.8	64
31	Deformation of isolated single-wall carbon nanotubes in electrospun polymer nanofibres. Nanotechnology, 2007, 18, 235707.	2.6	64
32	Crystalline and amorphous deformation of process-controlled cellulose-II fibres. Polymer, 2005, 46, 6380-6390.	3.8	56
33	Micromechanics of TEMPO-Oxidized Fibrillated Cellulose Composites. ACS Applied Materials & Interfaces, 2012, 4, 331-337.	8.0	54
34	Stress-transfer in microfibrillated cellulose reinforced poly(lactic acid) composites using Raman spectroscopy. Composites Part A: Applied Science and Manufacturing, 2012, 43, 1145-1152.	7.6	51
35	Characterisation of the microstructure and deformation of high modulus cellulose fibres. Polymer, 2003, 44, 5901-5908.	3.8	50
36	Discrimination of matrixâ€"fibre interactions in all-cellulose nanocomposites. Composites Science and Technology, 2010, 70, 2325-2330.	7.8	50

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37	Cross-Linked Bacterial Cellulose Networks Using Glyoxalization. ACS Applied Materials & Interfaces, 2011, 3, 490-499.	8.0	49
38	Deformation micromechanics of all-cellulose nanocomposites: Comparing matrix and reinforcing components. Carbohydrate Polymers, 2014, 100, 31-39.	10.2	49
39	Regenerated Cellulose and Willow Lignin Blends as Potential Renewable Precursors for Carbon Fibers. ACS Sustainable Chemistry and Engineering, 2018, 6, 5903-5910.	6.7	49
40	Crystal lattice deformation in single poly(p-phenylene benzobisoxazole) fibres. Polymer, 2004, 45, 7693-7704.	3.8	46
41	Hybrid carbon fibreâ€“carbon nanotube composite interfaces. Composites Science and Technology, 2014, 95, 114-120.	7.8	46
42	Beyond What Meets the Eye: Imaging and Imagining Wood Mechanicalâ€“Structural Properties. Advanced Materials, 2021, 33, e2001613.	21.0	46
43	Stiff as a Board: Perspectives on the Crystalline Modulus of Cellulose. ACS Macro Letters, 2012, 1, 1237-1239.	4.8	45
44	Superbase ionic liquids for effective cellulose processing from dissolution to carbonisation. Green Chemistry, 2017, 19, 5949-5957.	9.0	44
45	Carbon Nanofiber Aerogel/Magnetic Coreâ€“Shell Nanoparticle Composites as Recyclable Oil Sorbents. ACS Applied Nano Materials, 2020, 3, 3939-3950.	5.0	44
46	Deformation Processes in Regenerated Cellulose Fibers. Textile Reseach Journal, 2001, 71, 121-129.	2.2	40
47	Deformation micromechanics of model regenerated cellulose fibre-epoxy/polyester composites. Composites Science and Technology, 2007, 67, 2150-2159.	7.8	40
48	Hydrophobization of Cellulose Nanocrystals for Aqueous Colloidal Suspensions and Gels. Biomacromolecules, 2020, 21, 1812-1823.	5.4	38
49	Strain induced shifts in the Raman spectra of natural cellulose fibers. Journal of Materials Science Letters, 2000, 19, 721-723.	0.5	37
50	The effect of humidity on the fracture properties of human fingernails. Journal of Experimental Biology, 2008, 211, 3677-3681.	1.7	35
51	Characterisation of amino acid modified cellulose surfaces using ToF-SIMS and XPS. Cellulose, 2010, 17, 747-756.	4.9	35
52	Coaxially Electrospun Axon-Mimicking Fibers for Diffusion Magnetic Resonance Imaging. ACS Applied Materials & Interfaces, 2012, 4, 6311-6316.	8.0	34
53	Magnetically responsive and flexible bacterial cellulose membranes. Carbohydrate Polymers, 2018, 192, 251-262.	10.2	34
54	Characterization of pulp derived nanocellulose hydrogels using AVAPÂ® technology. Carbohydrate Polymers, 2018, 198, 270-280.	10.2	34

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55	Elastic coils: deformation micromechanics of coir and celery fibres. Cellulose, 2010, 17, 1-11.	4.9	33
56	Controlling cell morphology on amino acid-modified cellulose. Soft Matter, 2008, 4, 1059.	2.7	31
57	Comparing single-walled carbon nanotubes and samarium oxide as strain sensors for model glass-fibre/epoxy composites. Composites Science and Technology, 2010, 70, 88-93.	7.8	30
58	White magnetic paper based on a bacterial cellulose nanocomposite. Journal of Materials Chemistry C, 2018, 6, 11427-11435.	5.5	30
59	Mechanically Robust Gels Formed from Hydrophobized Cellulose Nanocrystals. ACS Applied Materials & Interfaces, 2018, 10, 19318-19322.	8.0	30
60	Thermosensitive supramolecular and colloidal hydrogels via self-assembly modulated by hydrophobized cellulose nanocrystals. Cellulose, 2019, 26, 529-542.	4.9	30
61	Stress transfer and matrix-cohesive fracture mechanism in microfibrillated cellulose-gelatin nanocomposite films. Carbohydrate Polymers, 2018, 195, 89-98.	10.2	29
62	Influence of Domain Orientation on the Mechanical Properties of Regenerated Cellulose Fibers. Biomacromolecules, 2007, 8, 624-630.	5.4	27
63	Tensile and shear properties of fingernails as a function of a changing humidity environment. Journal of Biomechanics, 2009, 42, 1230-1235.	2.1	26
64	Deformation micromechanics of a model cellulose/glass fibre hybrid composite. Composites Science and Technology, 2009, 69, 2218-2224.	7.8	24
65	Analysis of Stress Transfer in Two-Phase Polymer Systems Using Synchrotron Microfocus X-ray Diffraction. Macromolecules, 2004, 37, 9503-9509.	4.8	22
66	Crystallographic texturing in single poly(p-phenylene benzobisoxazole) fibres investigated using synchrotron radiation. Polymer, 2005, 46, 1935-1942.	3.8	22
67	Analysis of interfacial micromechanics in microdroplet model composites using synchrotron microfocus X-ray diffraction. Composites Science and Technology, 2006, 66, 2197-2205.	7.8	19
68	Continuous and sustainable cellulose filaments from ionic liquid dissolved paper sludge nanofibres. Journal of Cleaner Production, 2021, 280, 124503.	9.3	19
69	The role of residual stress in the fracture properties of a natural ceramic. Journal of Materials Chemistry, 2005, 15, 947.	6.7	18
70	Debundling, Isolation, and Identification of Carbon Nanotubes in Electrospun Nanofibers. Small, 2008, 4, 930-933.	10.0	18
71	Chemoenzymatic Synthesis of Fluorinated Cellodextrins Identifies a New Allomorph for Celluloseâ€Like Materials**. Chemistry - A European Journal, 2021, 27, 1374-1382.	3.3	18
72	Octylamine-Modified Cellulose Nanocrystal-Enhanced Stabilization of Pickering Emulsions for Self-Healing Composite Coatings. ACS Applied Materials & Interfaces, 2022, 14, 12722-12733.	8.0	18

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73	Rapid Determination of the Distribution of Cellulose Nanomaterial Aggregates in Composites Enabled by Multi-Channel Spectral Confocal Microscopy. Microscopy and Microanalysis, 2019, 25, 682-689.	0.4	13
74	Natural Fibres as a Sustainable Reinforcement Constituent in Aligned Discontinuous Polymer Composites Produced by the HiPerDiF Method. Materials, 2021, 14, 1885.	2.9	12
75	Employing photoluminescence to rapidly follow aggregation and dispersion of cellulose nanofibrils. Analyst, The, 2020, 145, 4836-4843.	3.5	11
76	Cellulose nanofibres for photonics and plasmonics. Current Opinion in Green and Sustainable Chemistry, 2018, 12, 1-7.	5.9	8
77	Quantitative analysis of the distribution and mixing of cellulose nanocrystals in thermoplastic composites using Raman chemical imaging. RSC Advances, 2018, 8, 35831-35839.	3.6	8
78	The physicochemical effect of sugar alcohol plasticisers on oxidised nanocellulose gels and extruded filaments. Cellulose, 2021, 28, 7829-7843.	4.9	6
79	Postsynthesis Self- And Coassembly of Enzymatically Produced Fluorinated Cellodextrins and Cellulose Nanocrystals. Langmuir, 2021, 37, 9215-9221.	3.5	4
80	Numerical simulation of transverse compression and densification of wood. Wood Science and Technology, 0, , .	3.2	2
81	Resource extraction as a tool of racism in West Papua. International Journal of Human Rights, 0, , 1-23.	1.2	1