Wim Thielemans

List of Publications by Year in Descending Order

143 papers	9,537 citations	45 h-index	96 g-index
154 ext. papers	10,754 ext. citations	7.1 avg, IF	6.64 L-index

#	Paper	IF	Citations
143	PVA fiber reinforced cement composites with calcined cutter soil mixing residue as a partial cement replacement. *Construction and Building Materials*, **2022**, 326, 126924	6.7	0
142	Synergistic effects of chloride anions and carboxylated cellulose nanocrystals on the assembly of thick three-dimensional high-performance polypyrrole-based electrodes. *Journal of Energy Chemistry*, **2022**, 70, 492-501	12	0
141	Grafting Ink for Direct Writing: Solvation Activated Covalent Functionalization of Graphene.. *Advanced Science*, **2022**, e2105017	13.6	0
140	A simple, rapid and accurate method for the sample preparation and quantification of meso- and microplastics in food and food waste streams. *Environmental Pollution*, **2022**, 307, 119511	9.3	1
139	Exploiting flocculation and membrane filtration synergies for highly energy-efficient, high-yield microalgae harvesting. *Separation and Purification Technology*, **2022**, 296, 121386	8.3	0
138	Instantaneous hydrolysis of PET bottles: an efficient pathway for the chemical recycling of condensation polymers. *Green Chemistry*, **2021**, 23, 9945-9956	10	10
137	Multicomponent Covalent Chemical Patterning of Graphene. *ACS Nano*, **2021**, 15, 10618-10627	16.7	9
136	Real-time adsorption of optical brightening agents on cellulose thin films. *Carbohydrate Polymers*, **2021**, 261, 117826	10.3	0
135	Synergistic effects of acetic acid and nitric acid in water-based sol□gel synthesis of crystalline TiO2 nanoparticles at 25 □C. *Journal of Materials Science*, **2021**, 56, 16877-16886	4.3	2
134	Synergy between endo/exo-glucanases and expansin enhances enzyme adsorption and cellulose conversion. *Carbohydrate Polymers*, **2021**, 253, 117287	10.3	9
133	Covalent functionalization of molybdenum disulfide by chemically activated diazonium salts. *Nanoscale*, **2021**, 13, 2972-2981	7.7	8
132	Meta-analysis of TiO2 nanoparticle synthesis strategies to assess the impact of key reaction parameters on their crystallinity. *Journal of Materials Science*, **2021**, 56, 5975-5994	4.3	3
131	Chemolytic depolymerisation of PET: a review. *Green Chemistry*, **2021**, 23, 3765-3789	10	41
130	How Trace Impurities Can Strongly Affect the Hydroconversion of Biobased 5-Hydroxymethylfurfural?. *ACS Catalysis*, **2021**, 11, 9204-9209	13.1	1
129	Enhanced enzymatic hydrolysis of cellulose by endoglucanase via expansin pretreatment and the addition of zinc ions. *Bioresource Technology*, **2021**, 333, 125139	11	2
128	Chlorine-Resistant Epoxide-Based Membranes for Sustainable Water Desalination. *Environmental Science and Technology Letters*, **2021**, 8, 818-824	11	1
127	Cellulose-hemicellulose interactions - A nanoscale view. *Carbohydrate Polymers*, **2021**, 270, 118364	10.3	8

126	Glycine betaine grafted nanocellulose as an effective and bio-based cationic nanocellulose flocculant for wastewater treatment and microalgal harvesting. *Nanoscale Advances*, **2021**, 3, 4133-4144	5.1	4
125	Colloidal Stability and Aggregation Mechanism in Aqueous Suspensions of TiO Nanoparticles Prepared by Sol-Gel Synthesis.. *Langmuir*, **2021**, 37, 14846-14855	4	1
124	Iodide mediated reductive decomposition of diazonium salts: towards mild and efficient covalent functionalization of surface-supported graphene. *Nanoscale*, **2020**, 12, 11916-11926	7.7	11
123	Harvesting microalgal-bacterial biomass from biogas upgrading process and evaluating the impact of flocculants on their growth during repeated recycling of the spent medium. *Algal Research*, **2020**, 48, 101915	5	4
122	Covalent Functionalization of Carbon Surfaces: Diaryliodonium versus Aryldiazonium Chemistry. *Chemistry of Materials*, **2020**, 32, 5246-5255	9.6	13
121	Controlled chlorination of polyamide reverse osmosis membranes at real scale for enhanced desalination performance. *Journal of Membrane Science*, **2020**, 611, 118400	9.6	10
120	The significant role of support layer solvent annealing in interfacial polymerization: The case of epoxide-based membranes. *Journal of Membrane Science*, **2020**, 612, 118438	9.6	5
119	Effect of Sugars on the Real-Time Adsorption of Expansin on Cellulose. *Biomacromolecules*, **2020**, 21, 1776-1784	6.9	3
118	Nanoscale Evidence Unravels Microalgae Flocculation Mechanism Induced by Chitosan.. *ACS Applied Bio Materials*, **2020**, 3, 8446-8459	4.1	10
117	Novel heterogeneous ruthenium racemization catalyst for dynamic kinetic resolution of chiral aliphatic amines. *Green Chemistry*, **2020**, 22, 85-93	10	3
116	Organocatalyzed ring opening polymerization of lactide from the surface of cellulose nanofibrils. *Carbohydrate Polymers*, **2020**, 250, 116974	10.3	7
115	SANS study of mixed cholesteric cellulose nanocrystal - gold nanorod suspensions. *Chemical Communications*, **2020**, 56, 13001-13004	5.8	6
114	Patience is a virtue: self-assembly and physico-chemical properties of cellulose nanocrystal allomorphs. *Nanoscale*, **2020**, 12, 17480-17493	7.7	17
113	Stimuli-Induced Nonequilibrium Phase Transitions in Polyelectrolyte-Surfactant Complex Coacervates. *Langmuir*, **2020**, 36, 8839-8857	4	8
112	Self-limiting covalent modification of carbon surfaces: diazonium chemistry with a twist. *Nanoscale*, **2020**, 12, 18782-18789	7.7	13
111	Generality and specificity of the binding behaviour of lysozyme with pectin varying in local charge density and overall charge. *Food Hydrocolloids*, **2020**, 99, 105345	10.6	6
110	Harvesting of marine microalgae using cationic cellulose nanocrystals. *Carbohydrate Polymers*, **2020**, 240, 116165	10.3	13
109	Thermodynamics of adsorption on nanocellulose surfaces. *Cellulose*, **2019**, 26, 249-279	5.5	47

108	Engineered Three-Dimensional Microenvironments with Starch Nanocrystals as Cell-Instructive Materials. *Biomacromolecules*, **2019**, 20, 3819-3830	6.9	10
107	Effect of nitrogen doping in the few layer graphene cathode of an aluminum ion battery. *Chemical Physics Letters*, **2019**, 733, 136669	2.5	2
106	Anisotropic Diffusion and Phase Behavior of Cellulose Nanocrystal Suspensions. *Langmuir*, **2019**, 35, 2289-2302	4	14
105	Cationic Cellulose Nanocrystals for Flocculation of Microalgae: Effect of Degree of Substitution and Crystallinity. *ACS Applied Nano Materials*, **2019**, 2, 3394-3403	5.6	24
104	Graphite and Graphene Fairy Circles: A Bottom-Up Approach for the Formation of Nanocorrals. *ACS Nano*, **2019**, 13, 5559-5571	16.7	17
103	Electric-Field-Mediated Reversible Transformation between Supramolecular Networks and Covalent Organic Frameworks. *Journal of the American Chemical Society*, **2019**, 141, 11404-11408	16.4	35
102	Thermodynamic Study of Ion-Driven Aggregation of Cellulose Nanocrystals. *Biomacromolecules*, **2019**, 20, 3181-3190	6.9	17
101	Cellulose-Cyclodextrin Co-Polymer for the Removal of Cyanotoxins on Water Sources. *Polymers*, **2019**, 11,	4.5	5
100	Multi-layered nanoscale cellulose/CuInS sandwich type thin films. *Carbohydrate Polymers*, **2019**, 203, 219-227	10.3	7
99	Toward Improved Understanding of the Interactions between Poorly Soluble Drugs and Cellulose Nanofibers. *Langmuir*, **2018**, 34, 5464-5473	4	22
98	Real-scale chlorination at pH4 of BW30 TFC membranes and their physicochemical characterization. *Journal of Membrane Science*, **2018**, 551, 123-135	9.6	14
97	Unravelling the Mechanism of Chitosan-Driven Flocculation of Microalgae in Seawater as a Function of pH. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 11273-11279	8.3	45
96	Grafting PolymersfromCellulose Nanocrystals: Synthesis, Properties, and Applications. *Macromolecules*, **2018**, 51, 6157-6189	5.5	130
95	Thermodynamics of the interactions of positively charged cellulose nanocrystals with molecules bearing different amounts of carboxylate anions. *Physical Chemistry Chemical Physics*, **2018**, 20, 17637-17647	3.6	11
94	Surface Chemistry and Characterization of Cellulose Nanocrystals **2018**, 223-252		3
93	Self-Assembled Monolayers as Templates for Linearly Nanopatterned Covalent Chemical Functionalization of Graphite and Graphene Surfaces. *ACS Nano*, **2018**, 12, 11520-11528	16.7	32
92	Real-Time Adsorption of Exo- and Endoglucanases on Cellulose: Effect of pH, Temperature, and Inhibitors. *Langmuir*, **2018**, 34, 13514-13522	4	9
91	Intrinsic five-photon non-linear absorption of two-dimensional BN and its conversion to two-photon absorption in the presence of photo-induced defects. *Optical Materials*, **2018**, 86, 414-420	3.3	7

90	Isothermal titration calorimetry to study the influence of citrus pectin degree and pattern of methylesterification on Zn interaction. *Carbohydrate Polymers*, **2018**, 197, 460-468	10.3	15
89	Effect of Source on the Properties and Behavior of Cellulose Nanocrystal Suspensions. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 8317-8324	8.3	27
88	Effect of Gelation on the Colloidal Deposition of Cellulose Nanocrystal Films. *Biomacromolecules*, **2018**, 19, 3233-3243	6.9	13
87	Thermodynamic Study of the Interaction of Bovine Serum Albumin and Amino Acids with Cellulose Nanocrystals. *Langmuir*, **2017**, 33, 5473-5481	4	31
86	Cellulose-gold nanoparticle hybrid materials. *Nanoscale*, **2017**, 9, 8525-8554	7.7	100
85	Phase Behaviour of Cellulose Nanocrystal Dispersion in Aqueous Sulphuric Acid and Development of an Energy Efficient Separation Technique for the Acid-Cellulose Nanocrystal System. *Defect and Diffusion Forum*, **2017**, 371, 59-72	0.7	
84	Polysaccharide Based Supercapacitors. *Springer Briefs in Molecular Science*, **2017**,	0.6	3
83	Polysaccharides in Supercapacitors. *Springer Briefs in Molecular Science*, **2017**, 15-53	0.6	1
82	Influence of the Particle Concentration and Marangoni Flow on the Formation of Cellulose Nanocrystal Films. *Langmuir*, **2017**, 33, 228-234	4	66
81	Stabilising Ni catalysts for the dehydration–decarboxylation–hydrogenation of citric acid to methylsuccinic acid. *Green Chemistry*, **2017**, 19, 4642-4650	10	5
80	Cellulosic-crystals as a fumed-silica substitute in vacuum insulated panel technology used in building construction and retrofit applications. *Energy and Buildings*, **2017**, 156, 187-196	7	11
79	One-pot functionalization of cellulose nanocrystals with various cationic groups. *Cellulose*, **2016**, 23, 3569-3576	5.5	17
78	Binary Mixed Homopolymer Brushes Tethered to Cellulose Nanocrystals: A Step Towards Compatibilized Polyester Blends. *Biomacromolecules*, **2016**, 17, 3048-59	6.9	15
77	Predicting the capability of carboxylated cellulose nanowhiskers for the remediation of copper from water using response surface methodology (RSM) and artificial neural network (ANN) models. *Industrial Crops and Products*, **2016**, 93, 108-120	5.9	38
76	Synthesis of Novel Renewable Polyesters and Polyamides with Olefin Metathesis. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 5943-5952	8.3	17
75	Separation of Sulphuric Acid from an Acid Suspension of Cellulose Nanocrystals by Manual Shaking. *Journal of Nano Research*, **2016**, 38, 58-72	1	7
74	Starch nanocrystals and starch nanoparticles from waxy maize as nanoreinforcement: A comparative study. *Carbohydrate Polymers*, **2016**, 143, 310-7	10.3	79
73	Coumarin and carbazole fluorescently modified cellulose nanocrystals using a one-step esterification procedure. *Canadian Journal of Chemical Engineering*, **2016**, 94, 2186-2194	2.3	14

72	CO2-controlled flocculation of microalgae using pH responsive cellulose nanocrystals. *Nanoscale*, **2015**, 7, 14413-21	7.7	54
71	Highly charged cellulose-based nanocrystals as flocculants for harvesting Chlorella vulgaris. *Bioresource Technology*, **2015**, 194, 270-5	11	63
70	Pico-electrochemistry in humidity-equilibrated electrolyte films on nano-cotton: Three- and four-point probe voltammetry and impedance. *Sensors and Actuators B: Chemical*, **2015**, 210, 762-767	8.5	0
69	Green One-Step Synthesis of Catalytically Active Palladium Nanoparticles Supported on Cellulose Nanocrystals. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 1241-1250	8.3	105
68	Effect of cellulose nanowhiskers on surface morphology, mechanical properties, and cell adhesion of melt-drawn polylactic Acid fibers. *Biomacromolecules*, **2014**, 15, 1498-506	6.9	46
67	Surface modification of cellulose nanocrystals. *Nanoscale*, **2014**, 6, 7764-79	7.7	500
66	The effect of cellulose nanowhiskers on the flexural properties of self-reinforced polylactic acid composites. *Reactive and Functional Polymers*, **2014**, 85, 193-200	4.6	20
65	Recycling of polymers: a review. *ChemSusChem*, **2014**, 7, 1579-93	8.3	264
64	Starch nanocrystal stabilized Pickering emulsion polymerization for nanocomposites with improved performance. *ACS Applied Materials & Interfaces*, **2014**, 6, 8263-73	9.5	102
63	Polyaniline- and poly(ethylenedioxythiophene)-cellulose nanocomposite electrodes for supercapacitors. *Journal of Solid State Electrochemistry*, **2014**, 18, 3307-3315	2.6	22
62	Mechanical, crystallisation and moisture absorption properties of melt drawn polylactic acid fibres. *European Polymer Journal*, **2014**, 53, 270-281	5.2	47
61	Self-Assembled Regenerated Cellulose Spacer Film in Thin Film and Generator-Collector Electrodes. *Electroanalysis*, **2013**, 25, 1773-1779	3	2
60	A facile one-pot route to cationic cellulose nanocrystals. *Nanoscale*, **2013**, 5, 10207-11	7.7	53
59	Chitin nanowhisker aerogels. *ChemSusChem*, **2013**, 6, 537-44	8.3	66
58	Cold plasma-assisted paper recycling. *Industrial Crops and Products*, **2013**, 43, 114-118	5.9	7
57	Polyethylene glycol-drug ester conjugates for prolonged retention of small inhaled drugs in the lung. *Journal of Controlled Release*, **2013**, 171, 234-40	11.7	29
56	Characterization of oil-proof papers containing new-type of fluorochemicals Part 1: Surface properties and printability. *Applied Surface Science*, **2013**, 277, 57-66	6.7	7
55	A one-step miniemulsion polymerization route towards the synthesis of nanocrystal reinforced acrylic nanocomposites. *Soft Matter*, **2013**, 9, 1975-1984	3.6	31

54	High total-electrode and mass-specific capacitance cellulose nanocrystal-polypyrrole nanocomposites for supercapacitors. *RSC Advances*, **2013**, 3, 9158	3.7	44
53	Cellulose Nanowhiskers Templating in Conductive Polymer Nanocomposites Reduces Electrical Percolation Threshold 5-Fold.. *ACS Macro Letters*, **2013**, 2, 157-163	6.6	42
52	Effect of Geometry on Droplet Generation in a Microfluidic T-Junction **2013**,		4
51	Cold-plasma Assisted Hydrophobisation of Lignocellulosic Fibres. *Current Organic Chemistry*, **2013**, 17, 892-899	1.7	3
50	Suppressed photoelectrochemistry at carbon-surface-modified mesoporous TiO2 films. *Electrochimica Acta*, **2012**, 73, 31-35	6.7	7
49	Physico-chemical and mechanical properties of nanocomposites prepared using cellulose nanowhiskers and poly(lactic acid). *Journal of Materials Science*, **2012**, 47, 2675-2686	4.3	101
48	Cellulose Nanowhiskers in Electrochemical Applications. *ACS Symposium Series*, **2012**, 75-106	0.4	9
47	Ferrocene-decorated nanocrystalline cellulose with charge carrier mobility. *Langmuir*, **2012**, 28, 6514-9	4	55
46	Synthesis of cellulose nanocrystals bearing photocleavable grafts by ATRP. *Polymer Chemistry*, **2012**, 3, 1402	4.9	70
45	Citric acid as a benign alternative to metal catalysts for the production of cellulose-grafted-polycaprolactone copolymers. *Polymer Chemistry*, **2012**, 3, 679	4.9	57
44	High cellulose nanowhisker content composites through cellosize bonding. *Soft Matter*, **2012**, 8, 12099	3.6	26
43	Synthesis of carbon-supported Pt nanoparticle electrocatalysts using nanocrystalline cellulose as reducing agent. *Green Chemistry*, **2011**, 13, 1686	10	79
42	Imidazolium grafted cellulose nanocrystals for ion exchange applications. *Chemical Communications* , **2011**, 47, 4177-9	5.8	116
41	Sorption potential of modified nanocrystals for the removal of aromatic organic pollutant from aqueous solution. *Industrial Crops and Products*, **2011**, 33, 350-357	5.9	44
40	Biodegradability of organic nanoparticles in the aqueous environment. *Chemosphere*, **2011**, 82, 1387-92	8.4	121
39	Improving the reproducibility of chemical reactions on the surface of cellulose nanocrystals: ROP of ε-caprolactone as a case study. *Cellulose*, **2011**, 18, 607-617	5.5	98
38	Tuning percolation speed in layer-by-layer assembled polyaniline–nanocellulose composite films. *Journal of Solid State Electrochemistry*, **2011**, 15, 2675-2681	2.6	20
37	Enhanced TiO2 surface electrochemistry with carbonised layer-by-layer cellulose-PDDA composite films. *Physical Chemistry Chemical Physics*, **2011**, 13, 9857-62	3.6	6

36	Dual fluorescent labelling of cellulose nanocrystals for pH sensing. *Chemical Communications*, **2010**, 46, 8929-31	5.8	185
35	Nanocomposite oxygen reduction electrocatalysts formed using bioderived reducing agents. *Journal of Materials Chemistry*, **2010**, 20, 1737		31
34	Cellulose nanowhisker aerogels. *Green Chemistry*, **2010**, 12, 1448	10	290
33	Electrochemical Capacitance of Nanocomposite Polypyrrole/Cellulose Films. *Journal of Physical Chemistry C*, **2010**, 114, 17926-17933	3.8	101
32	Synthesis of platinum nanoparticles using cellulosic reducing agents. *Green Chemistry*, **2010**, 12, 220-222	10	85
31	One step room temperature synthesis of ordered mesoporous silica SBA-15 mediated by cellulose nanoparticles. *Journal of Materials Chemistry*, **2010**, 20, 320-325		17
30	Boronic acid dendrimer receptor modified nanofibrillar cellulose membranes. *Journal of Materials Chemistry*, **2010**, 20, 588-594		36
29	Review: current international research into cellulose nanofibres and nanocomposites. *Journal of Materials Science*, **2010**, 45, 1-33	4.3	1760
28	Surface functionalization of cellulose by grafting oligoether chains. *Materials Chemistry and Physics*, **2010**, 120, 438-445	4.4	53
27	Ultrathin Carbon Film Electrodes from Vacuum-Carbonised Cellulose Nanofibril Composite. *Electroanalysis*, **2010**, 22, 619-624	3	17
26	Facile cation electro-insertion into layer-by-layer assembled iron phytate films. *Electrochemistry Communications*, **2010**, 12, 1722-1726	5.1	8
25	Surface modification of cellulose by PCL grafts. *Acta Materialia*, **2010**, 58, 792-801	8.4	60
24	The catalytic oxidation of biomass to new materials focusing on starch, cellulose and lignin. *Coordination Chemistry Reviews*, **2010**, 254, 1854-1870	23.2	163
23	Preparation of poly(styrene-co-hexylacrylate)/cellulose whiskers nanocomposites via miniemulsion polymerization. *Journal of Applied Polymer Science*, **2009**, 114, 2946-2955	2.9	83
22	Green chemicals and process to graft cellulose fibers. *Journal of Colloid and Interface Science*, **2009**, 330, 298-302	9.3	29
21	Synthesis of polycaprolactone: a review. *Chemical Society Reviews*, **2009**, 38, 3484-504	58.5	1000
20	Cellulose nanocrystals grafted with polystyrene chains through surface-initiated atom transfer radical polymerization (SI-ATRP). *Langmuir*, **2009**, 25, 8280-6	4	320
19	Permselective nanostructured membranes based on cellulose nanowhiskers. *Green Chemistry*, **2009**, 11, 531	10	93

18	Thin-Film Modified Electrodes with Reconstituted Cellulose/PDDAC Films for the Accumulation and Detection of Triclosan. *Journal of Physical Chemistry C*, **2008**, 112, 2660-2666	3.8	51
17	Nanofibrillar Cellulose-Chitosan Composite Film Electrodes: Competitive Binding of Triclosan, $Fe(CN)_6^{3-/4-}$, and SDS Surfactant. *Electroanalysis*, **2008**, 20, 2395-2402	3	16
16	Lignins as macromonomers for polyurethane synthesis: A comparative study on hydroxyl group determination. *Journal of Applied Polymer Science*, **2008**, 109, 3008-3017	2.9	108
15	Mechanical properties of nanocomposites from sorbitol plasticized starch and tunicin whiskers. *Journal of Applied Polymer Science*, **2008**, 109, 4065-4074	2.9	101
14	Surface functionalization of cellulose fibres and their incorporation in renewable polymeric matrices. *Composites Science and Technology*, **2008**, 68, 3193-3201	8.6	74
13	Demetallation of methemoglobin in cellulose nanofibril/TiO_2 nanoparticle composite membrane electrodes. *Electrochemistry Communications*, **2007**, 9, 1985-1990	5.1	29
12	Polymer grafting onto starch nanocrystals. *Biomacromolecules*, **2007**, 8, 2916-27	6.9	144
11	Starch nanocrystals with large chain surface modifications. *Langmuir*, **2006**, 22, 4804-10	4	185
10	Sisal cellulose whiskers reinforced polyvinyl acetate nanocomposites. *Cellulose*, **2006**, 13, 261-270	5.5	426
9	Lignin esters for use in unsaturated thermosets: lignin modification and solubility modeling. *Biomacromolecules*, **2005**, 6, 1895-905	6.9	224
8	Impure carbon nanotubes as reinforcements for acrylated epoxidized soy oil composites. *Journal of Applied Polymer Science*, **2005**, 98, 1325-1338	2.9	42
7	Kraft lignin as fiber treatment for natural fiber-reinforced composites. *Polymer Composites*, **2005**, 26, 695-705	3	33
6	Butyrated kraft lignin as compatibilizing agent for natural fiber reinforced thermoset composites. *Composites Part A: Applied Science and Manufacturing*, **2004**, 35, 327-338	8.4	77
5	A COMPOSITE FROM SOY OIL AND CARBON NANOTUBES. *International Journal of Nanoscience*, **2003**, 02, 185-194	0.6	10
4	Novel applications of lignin in composite materials. *Journal of Applied Polymer Science*, **2002**, 83, 323-331	2.9	192
3	Affordable Composites and Plastics from Renewable Resources: Part I: Synthesis of Monomers and Polymers. *ACS Symposium Series*, **2002**, 177-204	0.4	14
2	Affordable Composites and Plastics from Renewable Resources: Part II: Manufacture of Composites. *ACS Symposium Series*, **2002**, 205-224	0.4	13
1	Light-Addressable Nanocomposite Hydrogels Allow Plasmonic Actuation and In Situ Temperature Monitoring in 3D Cell Matrices. *Advanced Functional Materials*,2108234	15.6	6