Karen De Clerck

List of Publications by Year
in descending order

80 papers	3,192 citations	109321 35 h-index	168389 53 g-index
82 all docs	82 docs citations	82 times ranked	3389 citing authors

#	Article	IF	Citations
1	An alternative solvent system for the steady state electrospinning of polycaprolactone. European Polymer Journal, 2011, 47, 1256-1263.	5.4	224
2	Performance assessment of electrospun nanofibers for filter applications. Desalination, 2009, 249, 942-948.	8.2	133
3	Nanofibre bridging as a toughening mechanism in carbon/epoxy composite laminates interleaved with electrospun polyamide nanofibrous veils. Composites Science and Technology, 2015, 117, 244-256.	7.8	131
4	Polycaprolactone/chitosan blend nanofibres electrospun from an acetic acid/formic acid solvent system. Carbohydrate Polymers, 2012, 88, 1221-1226.	10.2	119
5	Damage-Resistant Composites Using Electrospun Nanofibers: A Multiscale Analysis of the Toughening Mechanisms. ACS Applied Materials & Interfaces, 2016, 8, 11806-11818.	8.0	111
6	Colorimetric Nanofibers as Optical Sensors. Advanced Functional Materials, 2017, 27, 1702646.	14.9	96
7	Polycaprolactone and polycaprolactone/chitosan nanofibres functionalised with the pH-sensitive dye Nitrazine Yellow. Carbohydrate Polymers, 2013, 91, 284-293.	10.2	95
8	Interlaminar toughening of resin transfer moulded glass fibre epoxy laminates by polycaprolactone electrospun nanofibres. Composites Science and Technology, 2014, 104, 66-73.	7.8	94
9	Coloration and application of pHâ€sensitive dyes on textile materials. Coloration Technology, 2012, 128, 82-90.	1.5	84
10	Computational prediction of the molecular configuration of three-dimensional network polymers. Nature Materials, 2021, 20, 1422-1430.	27.5	84
11	Novel cellulose and polyamide halochromic textile sensors based on the encapsulation of Methyl Red into a solâ€“gel matrix. Sensors and Actuators B: Chemical, 2012, 162, 27-34.	7.8	81
12	Substituent effects on absorption spectra of pH indicators: An experimental and computational study of sulfonphthaleine dyes. Dyes and Pigments, 2014, 102, 241-250.	3.7	80
13	The development of polyamide 6.6 nanofibres with a pH-sensitive function by electrospinning. European Polymer Journal, 2010, 46, 2229-2239.	5.4	74
14	Using aligned nanofibres for identifying the toughening micromechanisms in nanofibre interleaved laminates. Composites Science and Technology, 2016, 124, 17-26.	7.8	74
15	The potential of anthocyanins from blueberries as a natural dye for cotton: A combined experimental and theoretical study. Dyes and Pigments, 2020, 176, 108180.	3.7	73
16	Effect of electrospun polyamide 6 nanofibres on the mechanical properties of a glass fibre/epoxy composite. Polymer Testing, 2013, 32, 1495-1501.	4.8	72
17	Dye Modification of Nanofibrous Silicon Oxide Membranes for Colorimetric HCl and NH₃ Sensing. Advanced Functional Materials, 2016, 26, 5987-5996.	14.9	61
18	Blend electrospinning of dye-functionalized chitosan and poly(Îµ-caprolactone): towards biocompatible pH-sensors. Journal of Materials Chemistry B, 2016, 4, 4507-4516.	5.8	58

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19	Pullulan for Advanced Sustainable Body- and Skin-Contact Applications. Journal of Functional Biomaterials, 2020, 11, 20.	4.4	58
20	The influence of a polyamide matrix on the halochromic behaviour of the pH-sensitive azo dye Nitrazine Yellow. Dyes and Pigments, 2012, 94, 443-451.	3.7	53
21	Gelatin nanofibers: Analysis of triple helix dissociation temperature and cold-water-solubility. Food Hydrocolloids, 2016, 57, 200-208.	10.7	50
22	Halochromic properties of sulfonphthaleine dyes in a textile environment: The influence of substituents. Dyes and Pigments, 2016, 124, 249-257.	3.7	49
23	Dye immobilization in halochromic nanofibers through blend electrospinning of a dye-containing copolymer and polyamide-6. Polymer Chemistry, 2015, 6, 2685-2694.	3.9	45
24	Interlaminar toughening of resin transfer molded laminates by electrospun polycaprolactone structures: Effect of the interleave morphology. Composites Science and Technology, 2016, 136, 10-17.	7.8	42
25	Electrosprayed Chitin Nanofibril/Electrospun Polyhydroxyalkanoate Fiber Mesh as Functional Nonwoven for Skin Application. Journal of Functional Biomaterials, 2020, 11, 62.	4.4	42
26	Investigating the Halochromic Properties of Azo Dyes in an Aqueous Environment by Using a Combined Experimental and Theoretical Approach. Chemistry - A European Journal, 2012, 18, 8120-8129.	3.3	41
27	Multireactive Poly(2-oxazoline) Nanofibers through Electrospinning with Crosslinking on the Fly. ACS Macro Letters, 2016, 5, 676-681.	4.8	41
28	The influence of tetraethoxysilane sol preparation on the electrospinning of silica nanofibers. Journal of Sol-Gel Science and Technology, 2016, 77, 453-462.	2.4	40
29	Novel composite materials with tunable delamination resistance using functionalizable electrospun SBS fibers. Composite Structures, 2017, 159, 12-20.	5.8	40
30	Improving Mechanical Properties for Extrusion-Based Additive Manufacturing of Poly(Lactic Acid) by Annealing and Blending with Poly(3-Hydroxybutyrate). Polymers, 2019, 11, 1529.	4.5	40
31	Non-food applications of natural dyes extracted from agro-food residues: A critical review. Journal of Cleaner Production, 2021, 301, 126920.	9.3	40
32	TiO2 functionalized nanofibrous membranes for removal of organic (micro)pollutants from water. Separation and Purification Technology, 2017, 179, 533-541.	7.9	39
33	Wicking properties of various polyamide nanofibrous structures with an optimized method. Journal of Applied Polymer Science, 2011, 120, 305-310.	2.6	37
34	Improved fatigue delamination behaviour of composite laminates with electrospun thermoplastic nanofibrous interleaves using the Central Cut-Ply method. Composites Part A: Applied Science and Manufacturing, 2017, 94, 10-20.	7.6	37
35	Use of Triazolinedione Click Chemistry for Tuning the Mechanical Properties of Electrospun SBS-Fibers. Macromolecules, 2015, 48, 6474-6481.	4.8	36
36	Interdiffusing core-shell nanofiber interleaved composites for excellent Mode I and Mode II delamination resistance. Composites Science and Technology, 2019, 175, 143-150.	7.8	36

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37	Optimum sol viscosity for stable electrospinning of silica nanofibres. Journal of Sol-Gel Science and Technology, 2013, 67, 188-195.	2.4	34
38	Effect of crosslinking stage on photocrosslinking of benzophenone functionalized poly(2-ethyl-2-oxazoline) nanofibers obtained by aqueous electrospinning. European Polymer Journal, 2019, 112, 24-30.	5.4	32
39	Nanostructured Hydrogels by Blend Electrospinning of Polycaprolactone/Gelatin Nanofibers. Nanomaterials, 2018, 8, 551.	4.1	30
40	Waterborne Electrospinning of Poly(N-isopropylacrylamide) by Control of Environmental Parameters. ACS Applied Materials & Interfaces, 2017, 9, 24100-24110.	8.0	29
41	The effect of water immersion on the thermal degradation of cotton fibers. Cellulose, 2013, 20, 1603-1612.	4.9	28
42	Silica Nanofibrous Membranes for the Separation of Heterogeneous Azeotropes. Advanced Functional Materials, 2018, 28, 1804138.	14.9	28
43	Nanofibers with a tunable wettability by electrospinning and physical crosslinking of poly(2-n-propyl-2-oxazoline). Materials and Design, 2020, 192, 108747.	7.0	28
44	Plasma dye coating as straightforward and widely applicable procedure for dye immobilization on polymeric materials. Nature Communications, 2018, 9, 1123.	12.8	25
45	Polyamide 6.9 nanofibres electrospun under steady state conditions from a solvent/non-solvent solution. Journal of Materials Science, 2012, 47, 4118-4126.	3.7	24
46	Aqueous electrospinning of poly(2-ethyl-2-oxazoline): Mapping the parameter space. European Polymer Journal, 2017, 88, 724-732.	5.4	22
47	In Situ Cross-Linked Nanofibers by Aqueous Electrospinning of Selenol-Functionalized Poly(2-oxazoline)s. Macromolecules, 2018, 51, 6149-6156.	4.8	22
48	Moisture sorption in developing cotton fibers. Cellulose, 2012, 19, 1517-1526.	4.9	21
49	Combustion characteristics of cellulosic loose fibres. Fire and Materials, 2013, 37, 482-490.	2.0	21
50	Continuous Fiber-Reinforced Aramid/PETG 3D-Printed Composites with High Fiber Loading through Fused Filament Fabrication. Polymers, 2022, 14, 298.	4.5	21
51	Bisphenol A based polyester binder as an effective interlaminar toughener. Composites Part B: Engineering, 2015, 80, 145-153.	12.0	20
52	Acidity Constant (pK_a) Calculation of Large Solvated Dye Molecules: Evaluation of Two Advanced Molecular Dynamics Methods. ChemPhysChem, 2016, 17, 3447-3459.	2.1	20
53	Excellent Nanofiber Adhesion for Hybrid Polymer Materials with High Toughness Based on Matrix Interdiffusion During Chemical Conversion. Advanced Functional Materials, 2019, 29, 1807434.	14.9	17
54	One-shot production of large-scale 3D woven fabrics with integrated prismatic shaped cavities and their applications. Materials and Design, 2019, 165, 107578.	7.0	17

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55	Degradation kinetics of isoproturon and its subsequent products in contact with TiO2 functionalized silica nanofibers. Chemical Engineering Journal, 2020, 387, 124143.	12.7	17
56	Effect of the relative humidity on the fibre morphology of polyamide 4.6 and polyamide 6.9 nanofibres. Journal of Materials Science, 2013, 48, 1746-1754.	3.7	16
57	Fast-scanning calorimetry of electrospun polyamide nanofibres: Melting behaviour and crystal structure. Polymer, 2013, 54, 6809-6817.	3.8	15
58	Effect of nanofibres on the curing characteristics of an epoxy matrix. Composites Science and Technology, 2013, 79, 35-41.	7.8	15
59	Toughening mechanisms responsible for excellent crack resistance in thermoplastic nanofiber reinforced epoxies through in-situ optical and scanning electron microscopy. Composites Science and Technology, 2021, 201, 108504.	7.8	15
60	Composite Materials: Excellent Nanofiber Adhesion for Hybrid Polymer Materials with High Toughness Based on Matrix Interdiffusion During Chemical Conversion (Adv. Funct. Mater. 8/2019). Advanced Functional Materials, 2019, 29, 1970051.	14.9	14
61	Crosslinking of electrospun and bioextruded partially hydrolyzed poly(2-ethyl-2-oxazoline) using glutaraldehyde vapour. European Polymer Journal, 2019, 120, 109218.	5.4	13
62	Immunomodulatory Activity of Electrospun Polyhydroxyalkanoate Fiber Scaffolds Incorporating Olive Leaf Extract. Applied Sciences (Switzerland), 2021, 11, 4006.	2.5	13
63	Nanofibre-Based Sensors for Visual and Optical Monitoring. Nanoscience and Technology, 2015, , 157-177.	1.5	12
64	FÃ¶rster resonance energy transfer in fluorophore labeled poly(2-ethyl-2-oxazoline)s. Journal of Materials Chemistry C, 2020, 8, 14125-14137.	5.5	11
65	Silver Nanoparticle-Coated Polyhydroxyalkanoate Based Electrospun Fibers for Wound Dressing Applications. Materials, 2021, 14, 4907.	2.9	11
66	Dynamic moisture sorption behavior of cotton fibers with natural brown pigments. Cellulose, 2014, 21, 1149.	4.9	9
67	The Transferability and Design of Commercial Printer Settings in PLA/PBAT Fused Filament Fabrication. Polymers, 2020, 12, 2573.	4.5	9
68	Immiscibility of Chemically Alike Amorphous Polymers: Phase Separation of Poly(2-ethyl-2-oxazoline) and Poly(2-n-propyl-2-oxazoline). Macromolecules, 2020, 53, 7590-7600.	4.8	9
69	In-Situ Observations of Microscale Ductility in a Quasi-Brittle Bulk Scale Epoxy. Polymers, 2020, 12, 2581.	4.5	9
70	A Comparative Study on the Photophysical Properties of Anthocyanins and Pyranoanthocyanins. Chemistry - A European Journal, 2021, 27, 5956-5971.	3.3	9
71	Development of Bionanocomposites Based on Poly(3-Hydroxybutyrate-co-3-Hydroxyvalerate)/PolylActide Blends Reinforced with Cloisite 30B. Journal of Functional Biomaterials, 2020, 11, 64.	4.4	8
72	Fully Integrated Flexible Dielectric Monitoring Sensor System for Real-Time In Situ Prediction of the Degree of Cure and Glass Transition Temperature of an Epoxy Resin. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	4.7	7

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73	Nanofibre toughening of dissimilar interfaces in composites. Materials and Design, 2020, 195, 109050.	7.0	6
74	Electrospinning of poly(decamethylene terephthalate) to support vascular graft applications. European Polymer Journal, 2022, 165, 111003.	5.4	6
75	Effect of interleaved polymer nanofibers on the properties of glass and carbon fiber composites. , 2020, , 235-260.		5
76	A comparative theoretical study on the solvent dependency of anthocyanin extraction profiles. Journal of Molecular Liquids, 2022, 351, 118606.	4.9	5
77	Colorimetric Sensors: Dye Modification of Nanofibrous Silicon Oxide Membranes for Colorimetric HCl and NH3Sensing (Adv. Funct. Mater. 33/2016). Advanced Functional Materials, 2016, 26, 6136-6136.	14.9	3
78	Ecoâ€Friendly Colorimetric Nanofiber Design: Halochromic Sensors with Tunable pHâ€Sensing Regime Based on 2â€Ethylâ€2â€Oxazoline and 2â€nâ€Butylâ€2â€Oxazoline Statistical Copolymers Functionalized with Alizarin Yellow R. Advanced Functional Materials, 2022, 32, 2106859.	14.9	3
79	The sensitivity and impact of dye structure and fibre micronaire on the increased dyeability of bioengineered cotton fibres. Coloration Technology, 2013, 129, 239-245.	1.5	2
80	Ecoâ€Friendly Colorimetric Nanofiber Design: Halochromic Sensors with Tunable pHâ€Sensing Regime Based on 2â€Ethylâ€2â€Oxazoline and 2â€nâ€Butylâ€2â€Oxazoline Statistical Copolymers Functionalized with Alizarin Yellow R (Adv. Funct. Mater. 1/2022). Advanced Functional Materials, 2022, 32, .	14.9	0