Gil Garnier

List of Publications by Year
in descending order

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121 papers	3,856 citations	136950 32 h-index	155660 55 g-index
123 all docs	123 docs citations	123 times ranked	4365 citing authors

#	Article	IF	Citations
1	Engineering nanocellulose hydrogels for biomedical applications. Advances in Colloid and Interface Science, 2019, 267, 47-61.	14.7	286
2	Gold Nanoparticleâ€“Paper as a Three-Dimensional Surface Enhanced Raman Scattering Substrate. Langmuir, 2012, 28, 8782-8790.	3.5	211
3	Paper Diagnostic for Instantaneous Blood Typing. Analytical Chemistry, 2010, 82, 4158-4164.	6.5	177
4	Modulating the zeta potential of cellulose nanocrystals using salts and surfactants. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 509, 11-18.	4.7	143
5	Gelation mechanism of cellulose nanofibre gels: A colloids and interfacial perspective. Journal of Colloid and Interface Science, 2018, 509, 39-46.	9.4	141
6	Validation of Paper-Based Assay for Rapid Blood Typing. Analytical Chemistry, 2012, 84, 1661-1668.	6.5	102
7	Pickering Emulsions Electrostatically Stabilized by Cellulose Nanocrystals. Frontiers in Chemistry, 2018, 6, 409.	3.6	97
8	Biosurface engineering through ink jet printing. Colloids and Surfaces B: Biointerfaces, 2010, 75, 441-447.	5.0	81
9	Importance of Mediators for Lignin Degradation by Fungal Laccase. ACS Sustainable Chemistry and Engineering, 2018, 6, 10097-10107.	6.7	77
10	Characterisation of hydrogels: Linking the nano to the microscale. Advances in Colloid and Interface Science, 2019, 274, 102044.	14.7	75
11	Strategic Approach Towards Plastic Waste Valorization: Challenges and Promising Chemical Upcycling Possibilities. ChemSusChem, 2021, 14, 4007-4027.	6.8	73
12	One-shot TEMPO-periodate oxidation of native cellulose. Carbohydrate Polymers, 2019, 226, 115292.	10.2	71
13	Mechanism of Wetting and Absorption of Water Droplets on Sized Paper:Â Effects of Chemical and Physical Heterogeneity. Langmuir, 2002, 18, 642-649.	3.5	70
14	Association in Solution and Adsorption at an Airâ^'Water Interface of Alternating Copolymers of Maleic Anhydride and Styrene. Langmuir, 2000, 16, 3757-3763.	3.5	66
15	Are lignin-derived monomers and polymers truly sustainable? An in-depth green metrics calculations approach. Green Chemistry, 2021, 23, 1495-1535.	9.0	66
16	Effect of cationic polyacrylamides on the aggregation and SERS performance of gold nanoparticles-treated paper. Journal of Colloid and Interface Science, 2013, 392, 237-246.	9.4	62
17	Water Resistant Cellulose â€“ Titanium Dioxide Composites for Photocatalysis. Scientific Reports, 2018, 8, 2306.	3.3	59
18	Atomic force microscopy: From red blood cells to immunohaematology. Advances in Colloid and Interface Science, 2017, 249, 149-162.	14.7	51

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19	Rapid preparation of smooth nanocellulose films using spray coating. Cellulose, 2017, 24, 2669-2676.	4.9	48
20	Gel point as a measure of cellulose nanofibre quality and feedstock development with mechanical energy. Cellulose, 2016, 23, 3051-3064.	4.9	47
21	Thermal stability of bioactive enzymatic papers. Colloids and Surfaces B: Biointerfaces, 2010, 75, 239-246.	5.0	44
22	Effect of polyelectrolyte morphology and adsorption on the mechanism of nanocellulose flocculation. Journal of Colloid and Interface Science, 2016, 481, 158-167.	9.4	44
23	Controlling the transparency and rheology of nanocellulose gels with the extent of carboxylation. Carbohydrate Polymers, 2020, 245, 116566.	10.2	43
24	Producing nanofibres from carrots with a chemical-free process. Carbohydrate Polymers, 2018, 184, 307-314.	10.2	40
25	Carboxylated nanocellulose foams as superabsorbents. Journal of Colloid and Interface Science, 2019, 538, 433-439.	9.4	40
26	Engineering paper as a substrate for blood typing bio-diagnostics. Cellulose, 2012, 19, 1749-1758.	4.9	39
27	Effect of cationic polyacrylamide on the processing and properties of nanocellulose films. Journal of Colloid and Interface Science, 2015, 447, 113-119.	9.4	38
28	Engineered Plantâ€Based Nanocellulose Hydrogel for Small Intestinal Organoid Growth. Advanced Science, 2021, 8, 2002135.	11.2	38
29	Cellulose Nano-Films as Bio-Interfaces. Frontiers in Chemistry, 2019, 7, 535.	3.6	36
30	Recent Progress in Cellulose Nanocrystal Alignment and Its Applications. ACS Applied Bio Materials, 2020, 3, 1828-1844.	4.6	36
31	Flexible spray coating process for smooth nanocellulose film production. Cellulose, 2018, 25, 1725-1741.	4.9	35
32	Wetting Dynamics of Alkyl Ketene Dimer on Cellulosic Model Surfaces. Langmuir, 1999, 15, 7863-7869.	3.5	34
33	Nanocellulose films as air and water vapour barriers: A recyclable and biodegradable alternative to polyolefin packaging. Sustainable Materials and Technologies, 2019, 22, e00115.	3.3	34
34	Oxidized Lignin Depolymerization using Formate Ionic Liquid as Catalyst and Solvent. ChemCatChem, 2017, 9, 2684-2690.	3.7	33
35	Effects of fibre dimension and charge density on nanocellulose gels. Journal of Colloid and Interface Science, 2018, 525, 119-125.	9.4	33
36	Reversible pH Responsive Bovine Serum Albumin Hydrogel Sponge Nanolayer. Frontiers in Bioengineering and Biotechnology, 2020, 8, 573.	4.1	33

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37	Paper diagnostics in biomedicine. Reviews in Analytical Chemistry, 2013, 32, .	3.2	32
38	Decreasing the Wettability of Cellulose Nanocrystal Surfaces Using Wrinkle-Based Alignment. ACS Applied Materials & Interfaces, 2017, 9, 15202-15211.	8.0	32
39	Engineering cellulose fibre inorganic composites for depth filtration and adsorption. Separation and Purification Technology, 2018, 203, 209-216.	7.9	32
40	A thermo-responsive collagen-nanocellulose hydrogel for the growth of intestinal organoids. Materials Science and Engineering C, 2021, 124, 112051.	7.3	32
41	The role of anionic microparticles in a poly(acrylamide)-montmorillonite flocculation aid system. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2000, 170, 79-90.	4.7	31
42	Cellulose Dissolution in Ionic Liquid: Ion Binding Revealed by Neutron Scattering. Macromolecules, 2018, 51, 7649-7655.	4.8	31
43	Engineering nanocellulose superabsorbent structure by controlling the drying rate. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 600, 124943.	4.7	29
44	Effect of the counter-ion on nanocellulose hydrogels and their superabsorbent structure and properties. Journal of Colloid and Interface Science, 2021, 599, 140-148.	9.4	28
45	Characterizing highly fibrillated nanocellulose by modifying the gel point methodology. Carbohydrate Polymers, 2020, 227, 115340.	10.2	27
46	Modulating transparency and colour of cellulose nanocrystal composite films by varying polymer molecular weight. Journal of Colloid and Interface Science, 2021, 584, 216-224.	9.4	27
47	Phenolic Ester-Decorated Cellulose Nanocrystals as UV-Absorbing Nanoreinforcements in Polyvinyl Alcohol Films. ACS Sustainable Chemistry and Engineering, 2021, 9, 6427-6437.	6.7	27
48	Effect of Cationic Polyacrylamides on the Interactions between Cellulose Fibers. Langmuir, 2012, 28, 3641-3649.	3.5	26
49	Rapid Gel Card Agglutination Assays for Serological Analysis Following SARS-CoV-2 Infection in Humans. ACS Sensors, 2020, 5, 2596-2603.	7.8	26
50	Grafting Natureâ€Inspired and Bioâ€Based Phenolic Esters onto Cellulose Nanocrystals Gives Biomaterials with Photostable Antiâ€UV Properties. ChemSusChem, 2020, 13, 6552-6561.	6.8	24
51	Structure and swelling of cross-linked nanocellulose foams. Journal of Colloid and Interface Science, 2020, 568, 234-244.	9.4	23
52	Mechanism of Polyelectrolyte Transfer during Heteroflocculation. Langmuir, 2000, 16, 4871-4876.	3.5	21
53	Functionality of Immunoglobulin G and Immunoglobulin M Antibody Physisorbed on Cellulosic Films. Frontiers in Bioengineering and Biotechnology, 2017, 5, 41.	4.1	21
54	3D Collagen-Nanocellulose Matrices Model the Tumour Microenvironment of Pancreatic Cancer. Frontiers in Digital Health, 2021, 3, 704584.	2.8	21

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55	Smooth deuterated cellulose films for the visualisation of adsorbed bio-macromolecules. Scientific Reports, 2016, 6, 36119.	3.3	20
56	Microfibrilated cellulose as a model for soft colloid flocculation with polyelectrolytes. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 516, 325-335.	4.7	20
57	An energy efficient production of high moisture barrier nanocellulose/carboxymethyl cellulose films via spray-deposition technique. Carbohydrate Polymers, 2020, 250, 116911.	10.2	20
58	Cationic Cross-Linked Nanocellulose-Based Matrices for the Growth and Recovery of Intestinal Organoids. Biomacromolecules, 2021, 22, 701-709.	5.4	20
59	The use of cellulose nanofibres to reduce the wet strength polymer quantity for development of cleaner filters. Journal of Cleaner Production, 2019, 215, 226-231.	9.3	19
60	Perspective on Constructing Cellulose-Hydrogel-Based Gut-Like Bioreactors for Growth and Delivery of Multiple-Strain Probiotic Bacteria. Journal of Agricultural and Food Chemistry, 2021, 69, 4946-4959.	5.2	19
61	Bio-based photo-reversible self-healing polymer designed from lignin. Green Chemistry, 2021, 23, 10050-10061.	9.0	19
62	Effect of polymers on the retention and aging of enzyme on bioactive papers. Colloids and Surfaces B: Biointerfaces, 2010, 79, 88-96.	5.0	18
63	Bio-deuterated cellulose thin films for enhanced contrast in neutron reflectometry. Cellulose, 2017, 24, 11-20.	4.9	18
64	Nanocellulose Hydrogel for Blood Typing Tests. ACS Applied Bio Materials, 2019, 2, 2355-2364.	4.6	18
65	Simplification of gel point characterization of cellulose nano and microfiber suspensions. Cellulose, 2021, 28, 6995-7006.	4.9	18
66	Strong cellulose nanofibreâ€“nanosilica composites with controllable pore structure. Cellulose, 2017, 24, 2511-2521.	4.9	17
67	Visualization and Quantification of IgG Antibody Adsorbed at the Celluloseâ€“Liquid Interface. Biomacromolecules, 2017, 18, 2439-2445.	5.4	17
68	Effect of protein adsorption on the radial wicking of blood droplets in paper. Journal of Colloid and Interface Science, 2018, 528, 116-123.	9.4	17
69	Recent advancements, trends, fundamental challenges and opportunities in spray deposited cellulose nanofibril films for packaging applications. Science of the Total Environment, 2022, 836, 155654.	8.0	17
70	Adsorption of cationic polyacrylamide at the celluloseâ€“liquid interface: A neutron reflectometry study. Journal of Colloid and Interface Science, 2015, 448, 88-99.	9.4	16
71	Cellulose fibre- perlite depth filters with cellulose nanofibre top coating for improved filtration performance. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 583, 123997.	4.7	16
72	Engineering surface roughness of nanocellulose film via spraying to produce smooth substrates. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 589, 124396.	4.7	16

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73	Paper-based assay for red blood cell antigen typing by the indirect antiglobulin test. Analytical and Bioanalytical Chemistry, 2016, 408, 5231-5238.	3.7	15
74	Enhancing Printing Resolution on Hydrophobic Polymer Surfaces Using Patterned Coatings of Cellulose Nanocrystals. Langmuir, 2019, 35, 7155-7160.	3.5	15
75	Blending Ferulic Acid Derivatives and Polylactic Acid into Biobased and Transparent Elastomeric Materials with Shape Memory Properties. Biomacromolecules, 2021, 22, 1568-1578.	5.4	15
76	Predicting coffee ring formation upon drying in droplets of particle suspensions. Journal of Colloid and Interface Science, 2021, 591, 52-57.	9.4	15
77	Direct measurement of alkaline phosphatase kinetics on bioactive paper. Chemical Engineering Science, 2013, 87, 91-99.	3.8	14
78	Cationic polyacrylamide induced nanoparticles assembly in a cellulose nanofiber network. Journal of Colloid and Interface Science, 2018, 529, 180-186.	9.4	14
79	Dynamics of stain growth from sessile droplets on paper. Journal of Colloid and Interface Science, 2019, 541, 312-321.	9.4	14
80	Radial Wicking of Biological Fluids in Paper. Langmuir, 2020, 36, 8209-8217.	3.5	14
81	A rapid paper-based blood typing method from droplet wicking. Analyst, The, 2021, 146, 1048-1056.	3.5	14
82	Pattern formation in drying blood drops. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200391.	3.4	14
83	Effect of nanoparticles size and polyelectrolyte on nanoparticles aggregation in a cellulose fibrous matrix. Journal of Colloid and Interface Science, 2018, 510, 190-198.	9.4	13
84	Rapid paper diagnostic for plasma fibrinogen concentration. Analyst, The, 2019, 144, 4848-4857.	3.5	13
85	Indirect antiglobulin paper test for red blood cell antigen typing by flow-through method. Analytical Methods, 2015, 7, 4645-4649.	2.7	12
86	Lignin Biodegradation with Fungi, Bacteria and Enzymes for Producing Chemicals and Increasing Process Efficiency. Biofuels and Biorefineries, 2016, , 147-179.	0.5	12
87	Carboxylated nanocellulose superabsorbent: Biodegradation and soil water retention properties. Journal of Applied Polymer Science, 2022, 139, 51495.	2.6	12
88	Thermoresponsive Poly(N-isopropylacrylamide) Grafted from Cellulose Nanofibers via Silver-Promoted Decarboxylative Radical Polymerization. Biomacromolecules, 2022, 23, 1610-1621.	5.4	12
89	Modulating the chiral nanoarchitecture of cellulose nanocrystals through interaction with salts and polymer. Journal of Colloid and Interface Science, 2022, 613, 207-217.	9.4	12
90	Assembly of nanoparticles-polyelectrolyte complexes in nanofiber cellulose structures. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 513, 373-379.	4.7	11

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91	Mapping the distribution of specific antibody interaction forces on individual red blood cells. Scientific Reports, 2017, 7, 41956.	3.3	11
92	Biodegradation of a Nanocellulose Superabsorbent and Its Effect on the Growth of Spinach (Spinacea oleracea). ACS Agricultural Science and Technology, 2022, 2, 90-99.	2.3	11
93	Paper Diagnostic for Direct Measurement of Fibrinogen Concentration in Whole Blood. ACS Sensors, 2020, 5, 3627-3638.	7.8	10
94	Polyamide-amine-epichlorohydrin (PAE) induced TiO2 nanoparticles assembly in cellulose network. Journal of Colloid and Interface Science, 2020, 575, 317-325.	9.4	10
95	Modulating nanocellulose hydrogels and cryogels strength by crosslinking and blending. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 630, 127608.	4.7	10
96	Life cycle assessment of cellulose nanofibril films via spray deposition and vacuum filtration pathways for small scale production. Journal of Cleaner Production, 2022, 342, 130890.	9.3	10
97	Effect of cationic polyelectrolytes on the performance of paper diagnostics for blood typing. Colloids and Surfaces B: Biointerfaces, 2015, 133, 189-197.	5.0	9
98	Surface Engineering of Transparent Cellulose Nanocrystal Coatings for Biomedical Applications. ACS Applied Bio Materials, 2018, 1, 728-737.	4.6	9
99	Nanocellulose for gel electrophoresis. Journal of Colloid and Interface Science, 2019, 540, 148-154.	9.4	9
100	Absorption kinetics of nanocellulose foams: Effect of ionic strength and surface charge. Journal of Colloid and Interface Science, 2021, 601, 124-132.	9.4	9
101	Cellulose nanocrystals to modulate the self-assembly of graphene oxide in suspension. Materials and Design, 2022, 216, 110572.	7.0	8
102	Characterisation of cellulose nanocrystals by rheology and small angle X-ray scattering (SAXS). Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 651, 129532.	4.7	8
103	Formation of polyelectrolyteâ€“gold nanoparticle necklaces on paper. Journal of Colloid and Interface Science, 2013, 405, 71-77.	9.4	7
104	Linear Bioâ€Based Water Soluble Aromatic Polymers from Syringic Acid, S Type Degradation Fragment from Lignin. Journal of Polymer Science, 2020, 58, 540-547.	3.8	7
105	Moulding of micropatterned nanocellulose films and their application in fluid handling. Journal of Colloid and Interface Science, 2021, 587, 162-172.	9.4	7
106	Deuterated Bacterial Cellulose Dissolution in Ionic Liquids. Macromolecules, 2021, 54, 6982-6989.	4.8	7
107	Nanocrystallisation and self-assembly of biosourced ferulic acid derivative in polylactic acid elastomeric blends. Journal of Colloid and Interface Science, 2022, 606, 1842-1851.	9.4	6
108	Photothermal incubation of red blood cells by laser for rapid pre-transfusion blood group typing. Scientific Reports, 2019, 9, 11221.	3.3	5

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109	Rapid, hand-held paper diagnostic for measuring Fibrinogen Concentration in blood. Analytica Chimica Acta, 2020, 1102, 72-83.	5.4	5
110	Engineering laminated paper for SARS-CoV-2 medical gowns. Polymer, 2021, 222, 123643.	3.8	5
111	Direct measurement of IgMâ€"Antigen interaction energy on individual red blood cells. Colloids and Surfaces B: Biointerfaces, 2017, 155, 373-378.	5.0	4
112	Fibrinogen Diagnostics in Major Hemorrhage. Critical Reviews in Analytical Chemistry, 2022, 52, 194-209.	3.5	4
113	Rapidly freezeâ€dried human red blood cells for preâ€transfusion alloantibody testing reagents. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2021, 109, 1689-1697.	3.4	4
114	Duffy blood group (Fya & Fyb) analysis using surface plasmon resonance. Biomedical Microdevices, 2016, 18, 101.	2.8	3
115	Influence of Size and Chemical Additives on the Fabrication of Micropattern Nanocellulose Films. ACS Sustainable Chemistry and Engineering, 2021, 9, 11714-11723.	6.7	3
116	Droplet-based blood group antibody screening with laser incubation. Analyst, The, 2021, 146, 2499-2505.	3.5	3
117	Wash-free paper diagnostics for the rapid detection of blood type antibodies. Analyst, The, 2021, 146, 6970-6980.	3.5	3
118	Column Agglutination Assay Using Polystyrene Microbeads for Rapid Detection of Antibodies against SARS-CoV-2. ACS Applied Materials & Interfaces, 2022, 14, 2501-2509.	8.0	3
119	Effect of crosslinking on nanocellulose superabsorbent biodegradability. Carbohydrate Polymer Technologies and Applications, 2022, 3, 100199.	2.6	3
120	The process dynamics of filler retention in paper using a CPAM/bentonite retention aid system. Canadian Journal of Chemical Engineering, 2010, 79, 923-930.	1.7	2
121	Grafting Natureâ€Inspired and Bioâ€Based Phenolic Esters onto Cellulose Nanocrystals Gives Biomaterials with Photostable Antiâ€UV Properties. ChemSusChem, 2020, 13, 6460-6460.	6.8	1