Julien E Gautrot

List of Publications by Year
in descending order

93 papers	5,453 citations	136950 32 h-index	85541 71 g-index
101 all docs	101 docs citations	101 times ranked	8454 citing authors

#	Article	IF	Citations
1	Highly Stretchable Conductive Covalent Coacervate Gels for Electronic Skin. Biomacromolecules, 2022, 23, 1423-1432.	5.4	5
2	Impact of the multiscale viscoelasticity of quasi-2D self-assembled protein networks on stem cell expansion at liquid interfaces. Biomaterials, 2022, 284, 121494.	11.4	22
3	Protein Ligand Nanopattern Size Selects for Cellular Adhesion via Hemidesmosomes over Focal Adhesions. Small Methods, 2022, 6, e2200152.	8.6	5
4	Multi-Scale Analysis of the Composition, Structure, and Function of Decellularized Extracellular Matrix for Human Skin and Wound Healing Models. Biomolecules, 2022, 12, 837.	4.0	9
5	Responsive Polymer Brush Design and Emerging Applications for Nanotheranostics. Advanced Healthcare Materials, 2021, 10, e2000953.	7.6	56
6	Engineered cell-degradable poly(2-alkyl-2-oxazoline) hydrogel for epicardial placement of mesenchymal stem cells for myocardial repair. Biomaterials, 2021, 269, 120356.	11.4	50
7	Comparative adhesion of chemically and physically crosslinked poly(acrylic acid)-based hydrogels to soft tissues. European Polymer Journal, 2021, 146, 110250.	5.4	21
8	Hyaluronan (HA) Immobilized on Surfaces via Self-Assembled Monolayers of HA-Binding Peptide Modulates Endothelial Cell Spreading and Migration through Focal Adhesion. ACS Applied Materials & Interfaces, 2021, 13, 25792-25804.	8.0	7
9	Precise positioning of enzymes within hierarchical polymer nanostructures for switchable bioelectrocatalysis. Biosensors and Bioelectronics, 2021, 179, 113045.	10.1	5
10	Extreme reversal in mechanical anisotropy in liquid-liquid interfaces reinforced with self-assembled protein nanosheets. Journal of Colloid and Interface Science, 2021, 594, 650-657.	9.4	11
11	Cationic polymer brush-coated bioglass nanoparticles for the design of bioresorbable RNA delivery vectors. European Polymer Journal, 2021, 156, 110593.	5.4	7
12	Novel Crosslinking System for Poly-Chloroprene Rubber to Enable Recyclability and Introduce Self-Healing. Polymers, 2021, 13, 3347.	4.5	2
13	Nanoengineered electrospun fibers and their biomedical applications: a review. Nanocomposites, 2021, 7, 1-34.	4.2	35
14	Ultrafast Photo-Crosslinking of Thiolâ€“Norbornene Opaque Silicone Elastomer Nanocomposites in Air. ACS Applied Polymer Materials, 2021, 3, 5373-5385.	4.4	9
15	Competitive binding and molecular crowding regulate the cytoplasmic interactome of non-viral polymeric gene delivery vectors. Nature Communications, 2021, 12, 6445.	12.8	10
16	Long term expansion profile of mesenchymal stromal cells at protein nanosheet-stabilised bioemulsions for next generation cell culture microcarriers. Materials Today Bio, 2021, 12, 100159.	5.5	21
17	The physico-chemistry of adhesions of protein resistant and weak polyelectrolyte brushes to cells and tissues. Soft Matter, 2020, 16, 505-522.	2.7	12
18	Contractile myosin rings and cofilin-mediated actin disassembly orchestrate ECM nanotopography sensing. Biomaterials, 2020, 232, 119683.	11.4	15

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19	Functionalization of electrospun PLA fibers using amphiphilic block copolymers for use in carboxy-methyl-cellulose hydrogel composites. Nanocomposites, 2020, 6, 85-98.	4.2	10
20	Photoconfigurable, Cell-Remodelable Disulfide Cross-linked Hyaluronic Acid Hydrogels. Biomacromolecules, 2020, 21, 4663-4672.	5.4	31
21	Modulation of Thiolâ€“Ene Coupling by the Molecular Environment of Polymer Backbones for Hydrogel Formation and Cell Encapsulation. ACS Applied Bio Materials, 2020, 3, 6497-6509.	4.6	18
22	Peptide Cross-Linked Poly(2-oxazoline) as a Sensor Material for the Detection of Proteases with a Quartz Crystal Microbalance. Biomacromolecules, 2019, 20, 2506-2514.	5.4	17
23	Photoâ€Responsive Graphene: A Photoaddressable Liquid Crystalline Phase Transition in Graphene Oxide Nanocomposites (Adv. Funct. Mater. 24/2019). Advanced Functional Materials, 2019, 29, 1970165.	14.9	0
24	Peptide Cross-Linked Poly (Ethylene Glycol) Hydrogel Films as Biosensor Coatings for the Detection of Collagenase. Sensors, 2019, 19, 1677.	3.8	29
25	A Kinetic Model of Oligonucleotideâ€“Brush Interactions for the Rational Design of Gene Delivery Vectors. Biomacromolecules, 2019, 20, 2218-2229.	5.4	16
26	Conformational Dynamics and Responsiveness of Weak and Strong Polyelectrolyte Brushes: Atomistic Simulations of Poly(dimethyl aminoethyl methacrylate) and Poly(2-(methacryloyloxy)ethyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 250 457 Td	5.5	25
27	A Photoaddressable Liquid Crystalline Phase Transition in Graphene Oxide Nanocomposites. Advanced Functional Materials, 2019, 29, 1900738.	14.9	2
28	Modes of adsorption of polyelectrolytes to model substrates of hydroxyapatite. Journal of Colloid and Interface Science, 2019, 543, 237-246.	9.4	5
29	Core-independent approach for polymer brush-functionalised nanomaterials with a fluorescent tag for RNA delivery. Chemical Communications, 2019, 55, 14166-14169.	4.1	18
30	Cardiomyocytes Sense Matrix Rigidity through a Combination of Muscle and Non-muscle Myosin Contractions. Developmental Cell, 2018, 44, 326-336.e3.	7.0	101
31	Highly Stable RNA Capture by Dense Cationic Polymer Brushes for the Design of Cytocompatible, Serum-Stable SiRNA Delivery Vectors. Biomacromolecules, 2018, 19, 606-615.	5.4	36
32	Protein Nanosheet Mechanics Controls Cell Adhesion and Expansion on Low-Viscosity Liquids. Nano Letters, 2018, 18, 1946-1951.	9.1	93
33	Hydrophobic and hydrophilic effects on water structuring and adhesion in denture adhesives. Journal of Biomedical Materials Research - Part A, 2018, 106, 1355-1362.	4.0	6
34	Biofunctionalized Patterned Polymer Brushes via Thiolâ€“Ene Coupling for the Control of Cell Adhesion and the Formation of Cell Arrays. Biomacromolecules, 2018, 19, 1445-1455.	5.4	31
35	Impact of surface adhesion and sample heterogeneity on the multiscale mechanical characterisation of soft biomaterials. Scientific Reports, 2018, 8, 6780.	3.3	34
36	Collagenase Biosensor Based on the Degradation of Peptide Cross-Linked Poly(Ethylene Glycol) Hydrogel Films. Proceedings (mdpi), 2018, 2, .	0.2	2

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37	A drug eluting poly(trimethylene carbonate)/poly(lactic acid)-reinforced nanocomposite for the functional delivery of osteogenic molecules. International Journal of Nanomedicine, 2018, Volume 13, 5701-5718.	6.7	10
38	Stem Cell Expansion and Fate Decision on Liquid Substrates Are Regulated by Self-Assembled Nanosheets. ACS Nano, 2018, 12, 9206-9213.	14.6	44
39	Surface-Initiated Poly(oligo(2-alkyl-2-oxazoline)methacrylate) Brushes. Langmuir, 2018, 34, 10019-10027.	3.5	20
40	Hydration dependent mechanical performance of denture adhesive hydrogels. Dental Materials, 2018, 34, 1440-1448.	3.5	3
41	Fabrication and Characterization of Conductive Conjugated Polymerâ€Coated Antheraea mylitta Silk Fibroin Fibers for Biomedical Applications. Macromolecular Bioscience, 2017, 17, 1600443.	4.1	20
42	The culture of HaCaT cells on liquid substrates is mediated by a mechanically strong liquidâ€“liquid interface. Faraday Discussions, 2017, 204, 367-381.	3.2	28
43	Differential integrin expression regulates cell sensing of the matrix nanoscale geometry. Acta Biomaterialia, 2017, 50, 280-292.	8.3	24
44	Solution Conformation of Polymer Brushes Determines Their Interactions with DNA and Transfection Efficiency. Biomacromolecules, 2017, 18, 4121-4132.	5.4	36
45	Preparing macromolecular systems on surfaces: general discussion. Faraday Discussions, 2017, 204, 395-418.	3.2	0
46	Physico-chemical characterization of Antheraea mylitta silk mats for wound healing applications. Scientific Reports, 2017, 7, 10344.	3.3	26
47	Tunable and processable shape memory composites based on degradable polymers. Polymer, 2017, 122, 323-331.	3.8	26
48	â€œPolymer-polymer composites for the design of strong and tough degradable biomaterialsâ€• Materials Today Communications, 2016, 8, 53-63.	1.9	26
49	Ultrafast diffusion-controlled thiolâ€“ene based crosslinking of silicone elastomers with tailored mechanical properties for biomedical applications. Polymer Chemistry, 2016, 7, 5281-5293.	3.9	45
50	Impact of the Molecular Environment on Thiolâ€“Ene Coupling For Biofunctionalization and Conjugation. Bioconjugate Chemistry, 2016, 27, 2111-2123.	3.6	39
51	Adhesive ligand tether length affects the size and length of focal adhesions and influences cell spreading and attachment. Scientific Reports, 2016, 6, 34334.	3.3	59
52	Study of thiolâ€“ene chemistry on polymer brushes and application to surface patterning and protein adsorption. Polymer Chemistry, 2016, 7, 979-990.	3.9	35
53	Failure mechanisms in denture adhesives. Dental Materials, 2016, 32, 615-623.	3.5	10
54	Cell sensing of physical properties at the nanoscale: Mechanisms and control of cell adhesion and phenotype. Acta Biomaterialia, 2016, 30, 26-48.	8.3	152

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55	Conductive surfaces with dynamic switching in response to temperature and salt. Journal of Materials Chemistry B, 2015, 3, 9285-9294.	5.8	30
56	The RAPIDOS projectâ€"European and Chinese collaborative research on biomaterials. Journal of Orthopaedic Translation, 2015, 3, 78-84.	3.9	3
57	High-sensitivity light-addressable potentiometric sensors using silicon on sapphire functionalized with self-assembled organic monolayers. Sensors and Actuators B: Chemical, 2015, 209, 230-236.	7.8	53
58	Surface-Initiated Polymer Brushes in the Biomedical Field: Applications in Membrane Science, Biosensing, Cell Culture, Regenerative Medicine and Antibacterial Coatings. Chemical Reviews, 2014, 114, 10976-11026.	47.7	499
59	Biofunctionalization of PEGylated Microcapsules for Exclusive Binding to Protein Substrates. Biomacromolecules, 2014, 15, 2555-2562.	5.4	20
60	Directing cell migration using micropatterned and dynamically adhesive polymer brushes. Acta Biomaterialia, 2014, 10, 2415-2422.	8.3	46
61	The Nanoscale Geometrical Maturation of Focal Adhesions Controls Stem Cell Differentiation and Mechanotransduction. Nano Letters, 2014, 14, 3945-3952.	9.1	87
62	Decoupling geometrical and chemical cues directing epidermal stem cell fate on polymer brush-based cell micro-patterns. Integrative Biology (United Kingdom), 2013, 5, 899-910.	1.3	45
63	The surface charge of anti-bacterial coatings alters motility and biofilm architecture. Biomaterials Science, 2013, 1, 589.	5.4	152
64	Extracellular-matrix tethering regulates stem-cell fate. Nature Materials, 2012, 11, 642-649.	27.5	1,346
65	Mimicking normal tissue architecture and perturbation in cancer with engineered micro-epidermis. Biomaterials, 2012, 33, 5221-5229.	11.4	44
66	Island brushes to control adhesion of water in oil droplets on planar surfaces. Soft Matter, 2011, 7, 7013.	2.7	13
67	Recent advances in entropy-driven ring-opening polymerizations. Polymer Chemistry, 2011, 2, 791-799.	3.9	82
68	Formation of Pickering Emulsions Using Ion-Specific Responsive Colloids. Langmuir, 2011, 27, 1251-1259.	3.5	65
69	Shape-Induced Terminal Differentiation of Human Epidermal Stem Cells Requires p38 and Is Regulated by Histone Acetylation. PLoS ONE, 2011, 6, e27259.	2.5	52
70	Polymer Brushes Showing Nonâ€Fouling in Blood Plasma Challenge the Currently Accepted Design of Protein Resistant Surfaces. Macromolecular Rapid Communications, 2011, 32, 952-957.	3.9	184
71	Shape memory properties of main chain bile acids polymers. Polymer, 2010, 51, 22-25.	3.8	19
72	Exploiting the superior protein resistance of polymer brushes to control single cell adhesion and polarisation at the micron scale. Biomaterials, 2010, 31, 5030-5041.	11.4	99

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73	Actin and serum response factor transduce physical cues from the microenvironment to regulate epidermal stem cell fate decisions. Nature Cell Biology, 2010, 12, 711-718.	10.3	414
74	Protein-Resistant NTA-Functionalized Polymer Brushes for Selective and Stable Immobilization of Histidine-Tagged Proteins. ACS Applied Materials & Interfaces, 2010, 2, 193-202.	8.0	71
75	Biofunctionalized Protein Resistant Oligo(ethylene glycol)-Derived Polymer Brushes as Selective Immobilization and Sensing Platforms. Biomacromolecules, 2009, 10, 2885-2894.	5.4	100
76	Polymers containing inâ€€chain quinone moieties: synthesis and properties. Polymer International, 2009, 58, 261-266.	3.1	19
77	Shape Memory Polymers Based on Naturally-Occurring Bile Acids. Macromolecules, 2009, 42, 7324-7331.	4.8	63
78	Synthesis of electron-accepting polymers containing phenanthra-9,10-quinone units. Journal of Materials Chemistry, 2009, 19, 4148.	6.7	21
79	Macrocyclic bile acids: from molecular recognition to degradable biomaterial building blocks. Journal of Materials Chemistry, 2009, 19, 5705.	6.7	32
80	High molecular weight bile acid and ricinoleic acid-based copolyesters via entropy-driven ring-opening metathesis polymerisation. Chemical Communications, 2008, , 1674.	4.1	41
81	Synthesis and Characterization of Coreâ^'Shell Microspheres with Double Thermosensitivity. Langmuir, 2007, 23, 1047-1051.	3.5	21
82	Preparation and thermo-responsive light diffraction behaviors of soft polymerized crystalline colloidal arrays. Soft Matter, 2007, 3, 571-579.	2.7	13
83	Nitrocellulose-stabilized silver nanoparticles as low conversion temperature precursors useful for inkjet printed electronics. Journal of Materials Chemistry, 2007, 17, 1725.	6.7	32
84	2,6-Diaryl-9,10-anthraquinones as models for electron-accepting polymers. New Journal of Chemistry, 2007, 31, 1585.	2.8	29
85	Chondroitin-4-Sulfate: A Bioactive Macromolecule to Foster Vascular Healing around Stent-Grafts after Endovascular Aneurysm Repair. Macromolecular Bioscience, 2007, 7, 746-752.	4.1	12
86	Molar mass of main-chain bile acid-based oligo-esters measured by SEC, MALDI-TOF spectrometry and NMR spectroscopy: A comparative study. Analytica Chimica Acta, 2007, 581, 281-286.	5.4	10
87	Poly(dibenzo[a,c]phenazine-2,7-diyl)s â€“ Synthesis and characterisation of a new family of electron-accepting conjugated polymers. Polymer, 2007, 48, 7065-7077.	3.8	20
88	Experimental evidence for carbonylâ€“Ï€ electron cloud interactions. New Journal of Chemistry, 2006, 30, 1801-1807.	2.8	70
89	Enhancing the Photoluminescence Intensity of Conjugated Polycationic Polymers by Using Quantum Dots as Antiaggregation Reagents. Langmuir, 2006, 22, 4799-4803.	3.5	58
90	Biodegradable polymers based on bile acids and potential biomedical applications. Journal of Biomaterials Science, Polymer Edition, 2006, 17, 1123-1139.	3.5	32

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91	Main-Chain Bile Acid Based Degradable Elastomers Synthesized by Entropy-Driven Ring-Opening Metathesis Polymerization. Angewandte Chemie - International Edition, 2006, 45, 6872-6874.	13.8	74
92	Electrode specific electropolymerization of ethylenedioxythiophene: Injection enhancement in organic transistors. Applied Physics Letters, 2005, 87, 113501.	3.3	29
93	Design of an Integrated Microvascularized Human Skin-on-a-Chip Tissue Equivalent Model. Frontiers in Bioengineering and Biotechnology, 0, 10, .	4.1	8