

# Gregory Francius

## List of Publications by Year in descending order

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96  
papers

3,596  
citations

159585

30  
h-index

144013

57  
g-index

97  
all docs

97  
docs citations

97  
times ranked

4814  
citing authors

#	ARTICLE	IF	CITATIONS
1	Bone marrow mesenchymal stem cells offer an immune-privileged niche to Cutibacterium acnes in case of implant-associated osteomyelitis. <i>Acta Biomaterialia</i> , 2022, 137, 305-315.	8.3	7
2	Structural and morphological changes of breast cancer cells induced by iron(II) complexes. <i>Nanoscale</i> , 2022, 14, 2735-2749.	5.6	8
3	On the strong connection between nanoscale adhesion of Yad fimbriae and macroscale attachment of Yad-decorated bacteria to glycosylated, hydrophobic and hydrophilic surfaces. <i>Nanoscale</i> , 2021, 13, 1257-1272.	5.6	4
4	Impacts of Mechanical Stiffness of Bacteriophage-Loaded Hydrogels on Their Antibacterial Activity. <i>ACS Applied Bio Materials</i> , 2021, 4, 2614-2627.	4.6	5
5	Direct Access to Polysaccharide-Based Vesicles with a Tunable Membrane Thickness in a Large Concentration Window via Polymerization-Induced Self-Assembly. <i>Biomacromolecules</i> , 2021, 22, 3128-3137.	5.4	23
6	Atomic force microscopy nanoscale analysis: Impact of storage conditions on surface properties of whey protein powders. <i>Food Hydrocolloids</i> , 2021, 118, 106801.	10.7	4
7	Curcumin Loaded Nanoliposomes Localization by Nanoscale Characterization. <i>International Journal of Molecular Sciences</i> , 2020, 21, 7276.	4.1	17
8	Parietal Structures of Escherichia coli Can Impact the D-Cateslytin Antibacterial Activity. <i>ACS Chemical Biology</i> , 2020, 15, 2801-2814.	3.4	3
9	Surface properties associated with the production of polysaccharides in the food bacteria Propionibacterium freudenreichii. <i>Food Microbiology</i> , 2020, 92, 103579.	4.2	3
10	Role of active nanoliposomes in the surface and bulk mechanical properties of hybrid hydrogels. <i>Materials Today Bio</i> , 2020, 6, 100046.	5.5	19
11	Chemical Functionalization of the Zinc Selenide Surface and Its Impact on Lactobacillus rhamnosus GG Biofilms. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 14933-14945.	8.0	7
12	Effects of Bioactive Marine-Derived Liposomes on Two Human Breast Cancer Cell Lines. <i>Marine Drugs</i> , 2020, 18, 211.	4.6	17
13	Adhesive Interactions Between Lactic Acid Bacteria and $\beta$ -Lactoglobulin: Specificity and Impact on Bacterial Location in Whey Protein Isolate. <i>Frontiers in Microbiology</i> , 2019, 10, 1512.	3.5	12
14	The surface properties of milk fat globules govern their interactions with the caseins: Role of homogenization and pH probed by AFM force spectroscopy. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 182, 110363.	5.0	34
15	Mesoporous silica templated-albumin nanoparticles with high doxorubicin payload for drug delivery assessed with a 3-D tumor cell model. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2019, 1863, 332-341.	2.4	19
16	Adhesive interactions between milk fat globule membrane and Lactobacillus rhamnosus GG inhibit bacterial attachment to Caco-2 TC7 intestinal cell. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 167, 44-53.	5.0	34
17	On the Infectivity of Bacteriophages in Polyelectrolyte Multilayer Films: Inhibition or Preservation of Their Bacteriolytic Activity?. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 33545-33555.	8.0	6
18	Adhesion of Lactobacillus rhamnosus GG surface biomolecules to milk proteins. <i>Food Hydrocolloids</i> , 2018, 82, 296-303.	10.7	22

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19	Nano-exploration of organic conditioning film formed on polymeric surfaces exposed to drinking water. <i>Water Research</i> , 2017, 109, 155-163.	11.3	10
20	Auxiliary Biomembranes as a Directional Delivery System To Control Biological Events in Cell-Laden Tissue-Engineering Scaffolds. <i>ACS Omega</i> , 2017, 2, 918-929.	3.5	16
21	Bioinspired Nanofeatured Substrates: Suitable Environment for Bone Regeneration. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 12791-12801.	8.0	18
22	Discrepancies between Cyclic and Linear Antimicrobial Peptide Actions on the Spectrochemical and Nanomechanical Fingerprints of a Young Biofilm. <i>ACS Omega</i> , 2017, 2, 5861-5872.	3.5	12
23	AFM combined to ATR-FTIR reveals <i>Candida</i> cell wall changes under caspofungin treatment. <i>Nanoscale</i> , 2017, 9, 13731-13738.	5.6	20
24	D-Cateslytin, a new antimicrobial peptide with therapeutic potential. <i>Scientific Reports</i> , 2017, 7, 15199.	3.3	30
25	Human-derived extracellular matrix from Wharton's jelly: An untapped substrate to build up a standardized and homogeneous coating for vascular engineering. <i>Acta Biomaterialia</i> , 2017, 48, 227-237.	8.3	23
26	Harnessing Wharton's jelly stem cell differentiation into bone-like nodule on calcium phosphate substrate without osteoinductive factors. <i>Acta Biomaterialia</i> , 2017, 49, 575-589.	8.3	21
27	Pili of <i>Lactobacillus rhamnosus</i> GG mediate interaction with $\beta$ -lactoglobulin. <i>Food Hydrocolloids</i> , 2016, 58, 35-41.	10.7	26
28	Links between particle surface hardening and rehydration impairment during micellar casein powder storage. <i>Food Hydrocolloids</i> , 2016, 61, 277-285.	10.7	38
29	Macroporous carbon nanotube-carbon composite electrodes. <i>Carbon</i> , 2016, 109, 106-116.	10.3	18
30	Bacterial repopulation of drinking water pipe walls after chlorination. <i>Biofouling</i> , 2016, 32, 925-934.	2.2	9
31	Nanoscale investigation of the interaction of colistin with model phospholipid membranes by Langmuir technique, and combined infrared and force spectroscopies. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2016, 1858, 2592-2602.	2.6	17
32	Diffusion of Fluorescently Labeled Bacteriocin from Edible Nanomaterials and Embedded Nano-Bioactive Coatings. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 21618-21631.	8.0	17
33	Immunomodulation with Self-Crosslinked Polyelectrolyte Multilayer-Based Coatings. <i>Biomacromolecules</i> , 2016, 17, 2189-2198.	5.4	29
34	Remarkable Structure and Elasticity Relaxation Dynamics of Poly(diallyldimethylammonium) Tj ETQq0 0 0 rgBT /Overlock 10 Tf, 50 142 T	3.1	12
35	DDB2 (damaged-DNA binding 2) protein: a new modulator of nanomechanical properties and cell adhesion of breast cancer cells. <i>Nanoscale</i> , 2016, 8, 5268-5279.	5.6	14
36	Local modifications of whey protein isolate powder surface during high temperature storage. <i>Journal of Food Engineering</i> , 2016, 178, 39-46.	5.2	22

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37	Deciphering the aggregation mechanism of bacteria ( <i>Shewanella oneidensis</i> MR1) in the presence of polyethyleneimine: Effects of the exopolymeric superstructure and polymer molecular weight. <i>Colloids and Surfaces B: Biointerfaces</i> , 2016, 139, 285-293.	5.0	7
38	In situ and real time investigation of the evolution of a <i>Pseudomonas fluorescens</i> nascent biofilm in the presence of an antimicrobial peptide. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2016, 1858, 75-84.	2.6	52
39	Stability of Plasma Treated Non-vulcanized Polybutadiene Surfaces: Role of Plasma Parameters and Influence of Additives. <i>Plasma Chemistry and Plasma Processing</i> , 2016, 36, 627-650.	2.4	0
40	Correction: Multivalency: influence of the residence time and the retraction rate on rupture forces measured by AFM. <i>Journal of Materials Chemistry B</i> , 2015, 3, 3098-3098.	5.8	0
41	Isoelectric point is an inadequate descriptor of MS2, Phi X 174 and PRD1 phages adhesion on abiotic surfaces. <i>Journal of Colloid and Interface Science</i> , 2015, 446, 327-334.	9.4	81
42	Priming cells for their final destination: microenvironment controlled cell culture by a modular ECM-mimicking feeder film. <i>Biomaterials Science</i> , 2015, 3, 1302-1311.	5.4	22
43	Impacts of pH-mediated EPS structure on probiotic bacterial pili-whey proteins interactions. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 134, 332-338.	5.0	30
44	Multivalency: influence of the residence time and the retraction rate on rupture forces measured by AFM. <i>Journal of Materials Chemistry B</i> , 2015, 3, 1801-1812.	5.8	7
45	Atomic force microscopy analysis of IgG films at hydrophobic surfaces: A promising method to probe IgG orientations and optimize ELISA tests performance. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2015, 1854, 138-145.	2.3	15
46	Morphological and Physical Analysis of Natural Phospholipids-Based Biomembranes. <i>PLoS ONE</i> , 2014, 9, e107435.	2.5	24
47	Origin of the Differential Nanoscale Reactivity of Biologically and Chemically Formed Green Rust Crystals Investigated by Chemical Force Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2014, 118, 5978-5987.	3.1	14
48	In Situ Analysis of Bacterial Extracellular Polymeric Substances from a <i>Pseudomonas fluorescens</i> Biofilm by Combined Vibrational and Single Molecule Force Spectroscopies. <i>Journal of Physical Chemistry B</i> , 2014, 118, 6702-6713.	2.6	24
49	Double entrapment of growth factors by nanoparticles loaded into polyelectrolyte multilayer films. <i>Journal of Materials Chemistry B</i> , 2014, 2, 999.	5.8	28
50	The dynamics and pH-dependence of Ag43 adhesins self-association probed by atomic force spectroscopy. <i>Nanoscale</i> , 2014, 6, 12665-12681.	5.6	14
51	Is it possible to modulate the structure of skim milk particle through drying process and parameters?. <i>Journal of Food Engineering</i> , 2014, 142, 179-189.	5.2	24
52	Lactic acid bacteria in dairy food: Surface characterization and interactions with food matrix components. <i>Advances in Colloid and Interface Science</i> , 2014, 213, 21-35.	14.7	79
53	Drinking water biofilm cohesiveness changes under chlorination or hydrodynamic stress. <i>Water Research</i> , 2014, 55, 175-184.	11.3	64
54	Significance of bacterial surface molecules interactions with milk proteins to enhance microencapsulation of <i>Lactobacillus rhamnosus</i> GG. <i>Food Hydrocolloids</i> , 2014, 41, 60-70.	10.7	62

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55	Low Biotinyl Glycogen: A Model for Single-Molecule Force Analysis of Branched Biological Macromolecules. <i>Journal of Bionanoscience</i> , 2014, 8, 445-454.	0.4	0
56	Dynamic Modulation of Fimbrial Extension and FimH-Mannose Binding Force on Live Bacteria Under pH Changes: A Molecular Atomic Force Microscopy Analysis. <i>Journal of Biomedical Nanotechnology</i> , 2014, 10, 3361-3372.	1.1	13
57	Formation and Mechanical Properties of Membranes Formed at the Surface of Walnut Stain Extract Solutions. <i>Journal of Bionanoscience</i> , 2014, 8, 437-444.	0.4	0
58	In vitro interactions between probiotic bacteria and milk proteins probed by atomic force microscopy. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013, 104, 153-162.	5.0	67
59	Morphological properties of vermiculite particles in size-selected fractions obtained by sonication. <i>Applied Clay Science</i> , 2013, 77-78, 18-32.	5.2	44
60	Non-DLVO adhesion of F-specific RNA bacteriophages to abiotic surfaces: Importance of surface roughness, hydrophobic and electrostatic interactions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2013, 435, 178-187.	4.7	84
61	Biomimetic Cryptic Site Surfaces for Reversible Chemo- and Cyto-Mechanoresponsive Substrates. <i>ACS Nano</i> , 2013, 7, 3457-3465.	14.6	24
62	Thermo-Regulated Adhesion of the <i>Streptococcus thermophilus</i> Strain. <i>Langmuir</i> , 2013, 29, 4847-4856.	3.5	4
63	Production of Extracellular Glycogen by <i>Pseudomonas fluorescens</i> : Spectroscopic Evidence and Conformational Analysis by Biomolecular Recognition. <i>Biomacromolecules</i> , 2012, 13, 2118-2127.	5.4	28
64	Accumulation of MS2, GA, and Q $\beta$ phages on high density polyethylene (HDPE) and drinking water biofilms under flow/non-flow conditions. <i>Water Research</i> , 2012, 46, 6574-6584.	11.3	15
65	Design of Flexible Free Standing Plasma Polymer-Based Films As Hosts for Enzyme Immobilization. <i>Journal of Physical Chemistry C</i> , 2012, 116, 21356-21365.	3.1	9
66	Cohesiveness and hydrodynamic properties of young drinking water biofilms. <i>Water Research</i> , 2012, 46, 1155-1166.	11.3	77
67	Polyethyleneimine-mediated flocculation of <i>Shewanella oneidensis</i> MR-1: Impacts of cell surface appendage and polymer concentration. <i>Water Research</i> , 2012, 46, 1838-1846.	11.3	17
68	Antibacterial activity of class IIa bacteriocin Cbn BM1 depends on the physiological state of the target bacteria. <i>Research in Microbiology</i> , 2012, 163, 323-331.	2.1	18
69	Surface properties of bacteria sensitive and resistant to the class IIa carnobacteriocin Cbn BM1. <i>Journal of Applied Microbiology</i> , 2012, 112, 372-382.	3.1	6
70	Elasticity and physico-chemical properties during drinking water biofilm formation. <i>Biofouling</i> , 2011, 27, 739-750.	2.2	43
71	Determination of the matrix indentation modulus of Meuse/Haute-Marne argillite. <i>Applied Clay Science</i> , 2011, 52, 266-269.	5.2	15
72	Bacterial Surface Appendages Strongly Impact Nanomechanical and Electrokinetic Properties of <i>Escherichia coli</i> Cells Subjected to Osmotic Stress. <i>PLoS ONE</i> , 2011, 6, e20066.	2.5	69

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73	Automated Force Volume Image Processing for Biological Samples. <i>PLoS ONE</i> , 2011, 6, e18887.	2.5	86
74	Identification of a Gene Cluster for the Biosynthesis of a Long, Galactose-Rich Exopolysaccharide in <i>Lactobacillus rhamnosus</i> GG and Functional Analysis of the Priming Glycosyltransferase. <i>Applied and Environmental Microbiology</i> , 2009, 75, 3554-3563.	3.1	234
75	Stretching polysaccharides on live cells using single molecule force spectroscopy. <i>Nature Protocols</i> , 2009, 4, 939-946.	12.0	97
76	Effect of Cholesterol and Fatty Acids on the Molecular Interactions of Fengycin with <i>Stratum Corneum</i> Mimicking Lipid Monolayers. <i>Langmuir</i> , 2009, 25, 3029-3039.	3.5	44
77	Interactions of oritavancin, a new lipoglycopeptide derived from vancomycin, with phospholipid bilayers: Effect on membrane permeability and nanoscale lipid membrane organization. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2009, 1788, 1832-1840.	2.6	77
78	Imaging Chemical Groups and Molecular Recognition Sites on Live Cells Using AFM. <i>Nanoscience and Technology</i> , 2009, , 33-48.	1.5	2
79	Probing peptide-membrane interactions using AFM. <i>Surface and Interface Analysis</i> , 2008, 40, 151-156.	1.8	12
80	Detection, Localization, and Conformational Analysis of Single Polysaccharide Molecules on Live Bacteria. <i>ACS Nano</i> , 2008, 2, 1921-1929.	14.6	159
81	Nanostructure and nanomechanics of live <i>Phaeodactylum tricornutum</i> morphotypes. <i>Environmental Microbiology</i> , 2008, 10, 1344-1356.	3.8	111
82	Nanoscale membrane activity of surfactins: Influence of geometry, charge and hydrophobicity. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2008, 1778, 2058-2068.	2.6	43
83	Direct Observation of <i>Staphylococcus aureus</i> Cell Wall Digestion by Lysostaphin. <i>Journal of Bacteriology</i> , 2008, 190, 7904-7909.	2.2	168
84	Elasticity, biodegradability and cell adhesive properties of chitosan/hyaluronan multilayer films. <i>Biomedical Materials (Bristol)</i> , 2007, 2, S45-S51.	3.3	88
85	Stiffening of Soft Polyelectrolyte Architectures by Multilayer Capping Evidenced by Viscoelastic Analysis of AFM Indentation Measurements. <i>Journal of Physical Chemistry C</i> , 2007, 111, 8299-8306.	3.1	58
86	Anomalous Thickness Evolution of Multilayer Films Made from Poly-L-lysine and Mixtures of Hyaluronic Acid and Polystyrene Sulfonate. <i>Langmuir</i> , 2007, 23, 2602-2607.	3.5	25
87	Multifunctional Polyelectrolyte Multilayer Films: Combining Mechanical Resistance, Biodegradability, and Bioactivity. <i>Biomacromolecules</i> , 2007, 8, 139-145.	5.4	127
88	Nanomicrobiology. <i>Nanoscale Research Letters</i> , 2007, 2, 365-372.	5.7	4
89	Polyelectrolyte Multilayers with a Tunable Young's Modulus: Influence of Film Stiffness on Cell Adhesion. <i>Langmuir</i> , 2006, 22, 1193-1200.	3.5	297
90	Glycated Polyelectrolyte Multilayer Films: Differential Adhesion of Primary versus Tumor Cells. <i>Biomacromolecules</i> , 2006, 7, 2882-2889.	5.4	30

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91	Control of drug accessibility on functional polyelectrolyte multilayer films. <i>Biomaterials</i> , 2006, 27, 4149-4156.	11.4	107
92	Shear mechanical anisotropy of side chain liquid-crystal elastomers: Influence of sample preparation. <i>European Physical Journal E</i> , 2006, 20, 369-78.	1.6	35
93	AFM force spectroscopy of the fibrinogen adsorption process onto dental implants. <i>Journal of Biomedical Materials Research - Part A</i> , 2006, 78A, 466-472.	4.0	24
94	Effect of crosslinking on the elasticity of polyelectrolyte multilayer films measured by colloidal probe AFM. <i>Microscopy Research and Technique</i> , 2006, 69, 84-92.	2.2	88
95	Get closer to the intrinsic properties of Ni <sup>2+</sup> /salen polymer semiconductors accessed by chain isolation inside silica nanochannels. <i>Journal of Materials Chemistry C</i> , 0, , .	5.5	2
96	Characterization of an Innovative Biomaterial Derived From Human Wharton's Jelly as a New Promising Coating for Tissue Engineering Applications. <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 10, .	4.1	2