Geelsu Hwang

List of Publications by Year
in descending order

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53 papers	3,715 citations	168829 31 h-index	214428 50 g-index
53 all docs	53 docs citations	53 times ranked	4918 citing authors

#	Article	IF	Citations
1	In it together: Candidaâ€“bacterial oral biofilms and therapeutic strategies. Environmental Microbiology Reports, 2022, 14, 183-196.	1.0	7
2	Cross-Kingdom Cell-to-Cell Interactions in Cariogenic Biofilm Initiation. Journal of Dental Research, 2021, 100, 74-81.	2.5	29
3	Diagnosis of Biofilm-Associated Peri-Implant Disease Using a Fluorescence-Based Approach. Dentistry Journal, 2021, 9, 24.	0.9	1
4	Implication of Surface Properties, Bacterial Motility, and Hydrodynamic Conditions on Bacterial Surface Sensing and Their Initial Adhesion. Frontiers in Bioengineering and Biotechnology, 2021, 9, 643722.	2.0	290
5	Intervening in Symbiotic Cross-Kingdom Biofilm Interactions: a Binding Mechanism-Based Nonmicrobicidal Approach. MBio, 2021, 12, .	1.8	14
6	Smart Tooth System for In-Situ Wireless PH Monitoring. , 2021, , .		1
7	Bimodal Nanocomposite Platform with Antibiofilm and Self-Powering Functionalities for Biomedical Applications. ACS Applied Materials & Interfaces, 2021, 13, 40379-40391.	4.0	17
8	Dynamics of bacterial population growth in biofilms resemble spatial and structural aspects of urbanization. Nature Communications, 2020, 11, 1354.	5.8	78
9	Human Oral Motionâ€Powered Smart Dental Implant (SDI) for In Situ Ambulatory Photoâ€biomodulation Therapy. Advanced Healthcare Materials, 2020, 9, e2000658.	3.9	21
10	Anti-biofilm activity of a novel pit and fissure self-adhesive sealant modified with metallic monomers. Biofouling, 2020, 36, 245-255.	0.8	16
11	Synergism of Streptococcus mutans and Candida albicans Reinforces Biofilm Maturation and Acidogenicity in Saliva: An In Vitro Study. Frontiers in Cellular and Infection Microbiology, 2020, 10, 623980.	1.8	42
12	A Comprehensive Analysis of Nearâ€Contact Photobiomodulation Therapy in the Hostâ€“Bacteria Interaction Model Using 3Dâ€Printed Modular LED Platform. Advanced Biology, 2020, 4, e1900227.	3.0	4
13	Enhanced design and formulation of nanoparticles for anti-biofilm drug delivery. Nanoscale, 2019, 11, 219-236.	2.8	67
14	Dual-Targeting Approach Degrades Biofilm Matrix and Enhances Bacterial Killing. Journal of Dental Research, 2019, 98, 322-330.	2.5	38
15	Nanomaterials Properties of Environmental Interest and How to Assess Them. , 2019, , 45-105.		2
16	Catalytic antimicrobial robots for biofilm eradication. Science Robotics, 2019, 4, .	9.9	154
17	Dextran-Coated Iron Oxide Nanoparticles as Biomimetic Catalysts for Localized and pH-Activated Biofilm Disruption. ACS Nano, 2019, 13, 4960-4971.	7.3	243
18	Streptococcus mutans yidC1 and yidC2 Impact Cell Envelope Biogenesis, the Biofilm Matrix, and Biofilm Biophysical Properties. Journal of Bacteriology, 2019, 201, .	1.0	26

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19	Bacterial-derived exopolysaccharides enhance antifungal drug tolerance in a cross-kingdom oral biofilm. ISME Journal, 2018, 12, 1427-1442.	4.4	111
20	Therapeutic Strategies Targeting Cariogenic Biofilm Microenvironment. Advances in Dental Research, 2018, 29, 86-92.	3.6	62
21	Topical ferumoxytol nanoparticles disrupt biofilms and prevent tooth decay in vivo via intrinsic catalytic activity. Nature Communications, 2018, 9, 2920.	5.8	129
22	Biofilm three-dimensional architecture influences in situ pH distribution pattern on the human enamel surface. International Journal of Oral Science, 2017, 9, 74-79.	3.6	59
23	Nonleachable Imidazolium-Incorporated Composite for Disruption of Bacterial Clustering, Exopolysaccharide-Matrix Assembly, and Enhanced Biofilm Removal. ACS Applied Materials & Interfaces, 2017, 9, 38270-38280.	4.0	39
24	Candida albicans mannans mediate Streptococcus mutans exoenzyme GtfB binding to modulate cross-kingdom biofilm development in vivo. PLoS Pathogens, 2017, 13, e1006407.	2.1	146
25	Simultaneous spatiotemporal mapping of in situ pH and bacterial activity within an intact 3D microcolony structure. Scientific Reports, 2016, 6, 32841.	1.6	72
26	<scp>l</scp> -Arginine Modifies the Exopolysaccharide Matrix and Thwarts Streptococcus mutans Outgrowth within Mixed-Species Oral Biofilms. Journal of Bacteriology, 2016, 198, 2651-2661.	1.0	99
27	Nanocatalysts promote Streptococcus mutans biofilm matrix degradation and enhance bacterial killing to suppress dental caries inÂvivo. Biomaterials, 2016, 101, 272-284.	5.7	236
28	Characterization and optimization of pH-responsive polymer nanoparticles for drug delivery to oral biofilms. Journal of Materials Chemistry B, 2016, 4, 3075-3085.	2.9	69
29	Streptococcus mutans-derived extracellular matrix in cariogenic oral biofilms. Frontiers in Cellular and Infection Microbiology, 2015, 5, 10.	1.8	248
30	Cranberry Flavonoids Modulate Cariogenic Properties of Mixed-Species Biofilm through Exopolysaccharides-Matrix Disruption. PLoS ONE, 2015, 10, e0145844.	1.1	44
31	Application of the extended DLVO approach to mechanistically study the algal flocculation. Journal of Industrial and Engineering Chemistry, 2015, 30, 289-294.	2.9	14
32	pH-Activated Nanoparticles for Controlled Topical Delivery of Farnesol To Disrupt Oral Biofilm Virulence. ACS Nano, 2015, 9, 2390-2404.	7.3	266
33	Binding Force Dynamics of Streptococcus mutansâ€“glucosyltransferase B to Candida albicans. Journal of Dental Research, 2015, 94, 1310-1317.	2.5	83
34	Analysis of the mechanical stability and surface detachment of matureStreptococcus mutansbiofilms by applying a range of external shear forces. Biofouling, 2014, 30, 1079-1091.	0.8	61
35	Effect of reactor configuration and microbial characteristics on biofilm reactors for oil sands process-affected water treatment. International Biodeterioration and Biodegradation, 2014, 89, 74-81.	1.9	36
36	Î±-Mangostin Disrupts the Development of Streptococcus mutans Biofilms and Facilitates Its Mechanical Removal. PLoS ONE, 2014, 9, e111312.	1.1	40

#	Article	IF	Citations
37	The impacts of ozonation on oil sands process-affected water biodegradability and biofilm formation characteristics in bioreactors. Bioresource Technology, 2013, 130, 269-277.	4.8	89
38	The role of conditioning film formation in Pseudomonas aeruginosa PAO1 adhesion to inert surfaces in aquatic environments. Biochemical Engineering Journal, 2013, 76, 90-98.	1.8	40
39	Fabrication of porous polymeric nanocomposite membranes with enhanced anti-fouling properties: Effect of casting composition. Journal of Membrane Science, 2013, 444, 449-460.	4.1	82
40	Biological Fixed Film. Water Environment Research, 2012, 84, 1081-1113.	1.3	3
41	Impact of an extracellular polymeric substance (EPS) precoating on the initial adhesion ofBurkholderia cepaciaandPseudomonas aeruginosa. Biofouling, 2012, 28, 525-538.	0.8	51
42	Physico-Chemical Processes. Water Environment Research, 2012, 84, 971-1028.	1.3	3
43	Impact of conditioning films on the initial adhesion of Burkholderia cepacia. Colloids and Surfaces B: Biointerfaces, 2012, 91, 181-188.	2.5	52
44	Adhesion of nano-sized particles to the surface of bacteria: Mechanistic study with the extended DLVO theory. Colloids and Surfaces B: Biointerfaces, 2012, 97, 138-144.	2.5	69
45	Development of nanosilver and multi-walled carbon nanotubes thin-film nanocomposite membrane for enhanced water treatment. Journal of Membrane Science, 2012, 394-395, 37-48.	4.1	341
46	New Selection Criterion for a Base Polar Liquid in the Lifshitzâ€“van der Waals/Lewis Acidâ€“Base Approach. Journal of Physical Chemistry C, 2011, 115, 12458-12463.	1.5	12
47	Determination of reliable Lewis acidâ€“base surface tension components of a solid in LWâ€“AB approach. Journal of Industrial and Engineering Chemistry, 2011, 17, 125-129.	2.9	16
48	Physico-Chemical Processes. Water Environment Research, 2011, 83, 994-1091.	1.3	6
49	Analysis of the adhesion of Pseudomonas putida NCIB 9816-4 to a silica gel as a model soil using extended DLVO theory. Journal of Hazardous Materials, 2010, 179, 983-988.	6.5	24
50	Influence of naphthalene biodegradation on the adhesion of Pseudomonas putida NCIB 9816-4 to a naphthalene-contaminated soil. Journal of Hazardous Materials, 2009, 172, 491-493.	6.5	12
51	Absorption of a volatile organic compound by a jet loop reactor with circulation of a surfactant solution: Performance evaluation. Journal of Hazardous Materials, 2008, 153, 735-741.	6.5	36
52	Adhesion of Pseudomonas putida NCIB 9816-4 to a naphthalene-contaminated soil. Colloids and Surfaces B: Biointerfaces, 2008, 62, 91-96.	2.5	13
53	A 3Dâ€Printed Customizable Platform for Multiplex Dynamic Biofilm Studies. Advanced Materials Technologies, 0, , 2200138.	3.0	2