

Eoin Casey

List of Publications by Year in descending order

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Version: 2024-02-01

98
papers

3,578
citations

182225

30
h-index

175968

55
g-index

101
all docs

101
docs citations

101
times ranked

5042
citing authors

#	ARTICLE	IF	CITATIONS
1	A polyhydroxyalkanoates bioprocess improvement case study based on four fed-batch feeding strategies. <i>Microbial Biotechnology</i> , 2022, 15, 996-1006.	2.0	4
2	Interaction between Engineered Pluronic Silica Nanoparticles and Bacterial Biofilms: Elucidating the Role of Nanoparticle Surface Chemistry and EPS Matrix. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 34502-34512.	4.0	7
3	Co-treatment of leachate in municipal wastewater treatment plants: Critical issues and emerging technologies. <i>Critical Reviews in Environmental Science and Technology</i> , 2021, 51, 1079-1128.	6.6	27
4	Osmotic backwashing of forward osmosis membranes to detach adhered bacteria and mitigate biofouling. <i>Journal of Membrane Science</i> , 2021, 620, 118838.	4.1	13
5	Demand response through reject water scheduling in water resource recovery facilities: A demonstration with BSM2. <i>Water Research</i> , 2021, 188, 116516.	5.3	2
6	Enzyme-Functionalized Mesoporous Silica Nanoparticles to Target <i>Staphylococcus aureus</i> and Disperse Biofilms. <i>International Journal of Nanomedicine</i> , 2021, Volume 16, 1929-1942.	3.3	27
7	Biomimetic Polymer Surfaces by High Resolution Molding of the Wings of Different Cicadas. <i>Materials</i> , 2021, 14, 1910.	1.3	11
8	Synthesis and self-assembly of curcumin-modified amphiphilic polymeric micelles with antibacterial activity. <i>Journal of Nanobiotechnology</i> , 2021, 19, 104.	4.2	42
9	Self-assembly and regeneration strategy for mitigation of membrane biofouling by the exploitation of enzymatic nanoparticles. <i>Chemical Engineering Journal</i> , 2021, 412, 128666.	6.6	21
10	Oxidation mechanism of chlortetracycline in a membrane aerated biofilm reactor. <i>Environmental Technology and Innovation</i> , 2021, 24, 101910.	3.0	10
11	Membrane bioreactors for the production of value-added products: Recent developments, challenges and perspectives. <i>Bioresource Technology</i> , 2021, 341, 125793.	4.8	27
12	Electric Field Tunability of Photoluminescence from a Hybrid Peptide-Plasmonic Metal Microfabricated Chip. <i>Jacs Au</i> , 2021, 1, 1987-1995.	3.6	3
13	Predicting wastewater treatment plant performance during aeration demand shifting with a dual-layer reaction settling model. <i>Water Science and Technology</i> , 2020, 81, 1365-1374.	1.2	9
14	Modelling demand response with process models and energy systems models: Potential applications for wastewater treatment within the energy-water nexus. <i>Applied Energy</i> , 2020, 260, 114321.	5.1	43
15	Interactions between functionalised silica nanoparticles and <i>Pseudomonas fluorescens</i> biofilm matrix: A focus on the protein corona. <i>PLoS ONE</i> , 2020, 15, e0236441.	1.1	13
16	A Review of Nanomaterials and Technologies for Enhancing the Antibiofilm Activity of Natural Products and Phytochemicals. <i>ACS Applied Nano Materials</i> , 2020, 3, 8537-8556.	2.4	33
17	Tailoring Nanoparticle-Biofilm Interactions to Increase the Efficacy of Antimicrobial Agents Against <i>Staphylococcus aureus</i> . <i>International Journal of Nanomedicine</i> , 2020, Volume 15, 4779-4791.	3.3	36
18	Enhancing curcumin's solubility and antibiofilm activity via silica surface modification. <i>Nanoscale Advances</i> , 2020, 2, 1694-1708.	2.2	25

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19	A high throughput method to investigate nanoparticle entrapment efficiencies in biofilms. <i>Colloids and Surfaces B: Biointerfaces</i> , 2020, 193, 111123.	2.5	16
20	Surface functionalization-dependent localization and affinity of SiO ₂ nanoparticles within the biofilm EPS matrix. <i>Biofilm</i> , 2020, 2, 100029.	1.5	19
21	Benchmarking leachate co-treatment strategies in municipal wastewater treatment plants under dynamic conditions and energy prices. <i>Journal of Environmental Management</i> , 2020, 260, 110129.	3.8	11
22	Modeling Co-treatment of Leachate in Municipal Wastewater Treatment Plants in the Context of Dynamic Loads and Energy Prices. <i>Advances in Science, Technology and Innovation</i> , 2020, , 493-496.	0.2	1
23	Nanoparticle–Biofilm Interactions: The Role of the EPS Matrix. <i>Trends in Microbiology</i> , 2019, 27, 915-926.	3.5	307
24	Ratiometric Imaging of the in Situ pH Distribution of Biofilms by Use of Fluorescent Mesoporous Silica Nanosensors. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 32679-32688.	4.0	67
25	Simultaneous oxidation of ammonium and tetracycline in a membrane aerated biofilm reactor. <i>Science of the Total Environment</i> , 2019, 682, 553-560.	3.9	35
26	Population dynamics of a dual <i>Pseudomonas putida</i> – <i>Pseudomonas fluorescens</i> biofilm in a capillary bioreactor. <i>Biofouling</i> , 2019, 35, 299-307.	0.8	2
27	Production of Whey-Derived DPP-IV Inhibitory Peptides Using an Enzymatic Membrane Reactor. <i>Food and Bioprocess Technology</i> , 2019, 12, 799-808.	2.6	17
28	Extraction and identification of components of the biofilm matrix in <i>Pseudomonas</i> species biofilms. <i>Access Microbiology</i> , 2019, 1, .	0.2	2
29	Fundamental nanoparticle interactions with biofilms of <i>Pseudomonas</i> species. <i>Access Microbiology</i> , 2019, 1, .	0.2	0
30	Investigation into the physicochemical interactions of silica nanoparticles and EPS biomolecules within the biofilm matrix of <i>Pseudomonas</i> spp.. <i>Access Microbiology</i> , 2019, 1, .	0.2	0
31	The effects of extrinsic factors on the structural and mechanical properties of <i>Pseudomonas fluorescens</i> biofilms: A combined study of nutrient concentrations and shear conditions. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 165, 127-134.	2.5	30
32	One-directional modelling to assess the mechanistic actions of power ultrasound on NaCl diffusion in pork. <i>Ultrasonics Sonochemistry</i> , 2018, 40, 206-212.	3.8	17
33	Biofilm recruitment under nanofiltration conditions: the influence of resident biofilm structural parameters on planktonic cell invasion. <i>Microbial Biotechnology</i> , 2018, 11, 264-267.	2.0	3
34	Market Effects of Industrial Demand Response and Flexibility Potential from Wastewater Treatment Facilities. , 2018, , .		6
35	Degradation of oxytetracycline under autotrophic nitrifying conditions in a membrane aerated biofilm reactor and community fingerprinting. <i>Journal of Hazardous Materials</i> , 2018, 356, 26-33.	6.5	40
36	One particle, two targets: A combined action of functionalised gold nanoparticles, against <i>Pseudomonas fluorescens</i> biofilms. <i>Journal of Colloid and Interface Science</i> , 2018, 526, 419-428.	5.0	29

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37	Analysis of surrogate bacterial cell transport to nanofiltration membranes: Effect of salt concentration and hydrodynamics. Separation and Purification Technology, 2018, 207, 498-505.	3.9	2
38	The Triple Bottom Line for Efficiency: Integrating Systems Within Water and Energy Networks. IEEE Power and Energy Magazine, 2017, 15, 34-42.	1.6	10
39	Dynamics of silver elution from functionalised antimicrobial nanofiltration membranes. Biofouling, 2017, 33, 520-529.	0.8	2
40	Simultaneous removal of malachite green and hexavalent chromium by <i>Cunninghamella elegans</i> biofilm in a semi-continuous system. International Biodeterioration and Biodegradation, 2017, 125, 142-149.	1.9	31
41	Nanofiltration-induced cell death: An integral perspective of early stage biofouling under permeate flux conditions. Journal of Membrane Science, 2017, 541, 93-100.	4.1	5
42	Antifouling activity of enzyme- ϵ -functionalized silica nanobeads. Biotechnology and Bioengineering, 2016, 113, 501-512.	1.7	19
43	Hydrodynamics and gas transfer performance of confined hollow fibre membrane modules with the aid of computational fluid dynamics. Journal of Membrane Science, 2016, 513, 117-128.	4.1	19
44	Material- and feature-dependent effects on cell adhesion to micro injection moulded medical polymers. Colloids and Surfaces B: Biointerfaces, 2016, 145, 46-54.	2.5	14
45	Revealing region-specific biofilm viscoelastic properties by means of a micro-rheological approach. Npj Biofilms and Microbiomes, 2016, 2, 5.	2.9	24
46	Cicada Wing Surface Topography: An Investigation into the Bactericidal Properties of Nanostructural Features. ACS Applied Materials & Interfaces, 2016, 8, 14966-14974.	4.0	262
47	Interfacial separation of a mature biofilm from a glass surface – A combined experimental and cohesive zone modelling approach. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 54, 205-218.	1.5	10
48	Comparison of biomass detachment from biofilms of two different <i>Pseudomonas</i> spp. under constant shear conditions. Biofouling, 2015, 31, 13-18.	0.8	6
49	Production of drug metabolites by immobilised <i>Cunninghamella elegans</i> : from screening to scale up. Journal of Industrial Microbiology and Biotechnology, 2015, 42, 799-806.	1.4	26
50	Nanofiltration and reverse osmosis surface topographical heterogeneities: Do they matter for initial bacterial adhesion?. Journal of Membrane Science, 2015, 486, 10-20.	4.1	17
51	Performance analysis of a pilot-scale membrane aerated biofilm reactor for the treatment of landfill leachate. Chemical Engineering Journal, 2015, 273, 120-129.	6.6	85
52	High cell density cultivation of <i>Pseudomonas putida</i> KT2440 using glucose without the need for oxygen enriched air supply. Biotechnology and Bioengineering, 2015, 112, 725-733.	1.7	53
53	Mechanical properties of a mature biofilm from a wastewater system: from microscale to macroscale level. Biofouling, 2015, 31, 651-664.	0.8	23
54	Understanding particle deposition kinetics on NF membranes: A focus on micro-beads and membrane interactions at different environmental conditions. Journal of Membrane Science, 2015, 475, 367-375.	4.1	15

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55	The significance of calcium ions on <i>Pseudomonas fluorescens</i> biofilms – a structural and mechanical study. <i>Biofouling</i> , 2014, 30, 859-869.	0.8	35
56	Identification and characterization of an acyl-CoA dehydrogenase from <i>Pseudomonas putida</i> KT2440 that shows preference towards medium to long chain length fatty acids. <i>Microbiology (United Kingdom)</i> , 2014, 154, 107-118.	0.7	4
57	Medium chain length polyhydroxyalkanoate (mcl-PHA) production from volatile fatty acids derived from the anaerobic digestion of grass. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 611-620.	1.7	68
58	Conversion of post consumer polyethylene to the biodegradable polymer polyhydroxyalkanoate. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 4223-4232.	1.7	102
59	The role of cell-surface interactions in bacterial initial adhesion and consequent biofilm formation on nanofiltration/reverse osmosis membranes. <i>Journal of Membrane Science</i> , 2014, 454, 82-96.	4.1	215
60	Gas/Substrate Fluxes and Microbial Community in Phenol Biodegradation Using an O ₂ -Based Membrane Biofilm Reactor. <i>Clean - Soil, Air, Water</i> , 2014, 42, 36-42.	0.7	4
61	A physical impact of organic fouling layers on bacterial adhesion during nanofiltration. <i>Water Research</i> , 2014, 67, 118-128.	5.3	22
62	Characteristics of <i>Streptomyces griseus</i> biofilms in continuous flow tubular reactors. <i>FEMS Microbiology Letters</i> , 2014, 352, 157-164.	0.7	16
63	Fed-batch strategies using butyrate for high cell density cultivation of <i>Pseudomonas putida</i> and its use as a biocatalyst. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 9217-9228.	1.7	21
64	Bacterial adhesion onto nanofiltration and reverse osmosis membranes: Effect of permeate flux. <i>Water Research</i> , 2014, 63, 296-305.	5.3	23
65	Upon Impact: The Fate of Adhering <i>Pseudomonas fluorescens</i> Cells during Nanofiltration. <i>Environmental Science & Technology</i> , 2014, 48, 9641-9650.	4.6	11
66	Detachment characteristics of a mixed culture biofilm using particle size analysis. <i>Chemical Engineering Journal</i> , 2013, 228, 1140-1147.	6.6	17
67	Filamentous fungal biofilm for production of human drug metabolites. <i>Applied Microbiology and Biotechnology</i> , 2013, 97, 5955-5963.	1.7	29
68	Disinfection of a polyamide nanofiltration membrane using ethanol. <i>Journal of Membrane Science</i> , 2013, 448, 170-179.	4.1	30
69	Conversion of grass biomass into fermentable sugars and its utilization for medium chain length polyhydroxyalkanoate (mcl-PHA) production by <i>Pseudomonas</i> strains. <i>Bioresource Technology</i> , 2013, 150, 202-209.	4.8	129
70	The effect of salt and fibre direction on water dynamics, distribution and mobility in pork muscle: A low field NMR study. <i>Meat Science</i> , 2013, 95, 51-58.	2.7	155
71	The importance of laboratory water quality for studying initial bacterial adhesion during NF filtration processes. <i>Water Research</i> , 2013, 47, 2909-2920.	5.3	26
72	Phenol removal from four different natural soil types by <i>Bacillus</i> sp. PS11. <i>Applied Soil Ecology</i> , 2013, 70, 1-8.	2.1	19

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73	Understanding the Mechanisms of Biofouling on Nanofiltration Membranes: Effect of the Biofilm Structure on Solute Removal. <i>Procedia Engineering</i> , 2012, 44, 1557-1560.	1.2	3
74	Performance of a Pilot Scale Membrane Aerated Biofilm Reactor for the Treatment of Landfill Leachate. <i>Procedia Engineering</i> , 2012, 44, 2082-2084.	1.2	2
75	Factors influencing 4-fluorobenzoate degradation in biofilm cultures of <i>Pseudomonas knackmussii</i> B13. <i>Water Research</i> , 2011, 45, 3512-3520.	5.3	32
76	Disinfection of meticillin-resistant <i>Staphylococcus aureus</i> and <i>Staphylococcus epidermidis</i> biofilms using a remote non-thermal gas plasma. <i>Journal of Hospital Infection</i> , 2011, 78, 204-207.	1.4	49
77	Process analysis of the conversion of styrene to biomass and medium chain length polyhydroxyalkanoate in a two-phase bioreactor. <i>Biotechnology and Bioengineering</i> , 2011, 108, 2447-2455.	1.7	25
78	The role of meso-mixing in anti-solvent crystallization processes. <i>Chemical Engineering Science</i> , 2011, 66, 2523-2534.	1.9	37
79	Characterization of a modified rotating disk reactor for the cultivation of <i>Staphylococcus epidermidis</i> biofilm. <i>Journal of Applied Microbiology</i> , 2010, 109, 2105-2117.	1.4	14
80	Comparison of Planktonic and Biofilm Cultures of <i>Pseudomonas fluorescens</i> DSM 8341 Cells Grown on Fluoroacetate. <i>Applied and Environmental Microbiology</i> , 2009, 75, 2899-2907.	1.4	34
81	Oxygen-Mediated Regulation of Biofilm Development Is Controlled by the Alternative Sigma Factor σ^B in <i>Staphylococcus epidermidis</i> . <i>Applied and Environmental Microbiology</i> , 2009, 75, 261-264.	1.4	33
82	Rapid depletion of dissolved oxygen in 96-well microtiter plate <i>Staphylococcus epidermidis</i> biofilm assays promotes biofilm development and is influenced by inoculum cell concentration. <i>Biotechnology and Bioengineering</i> , 2009, 103, 1042-1047.	1.7	21
83	Studies on the effect of concentration of a self-inhibitory substrate on biofilm reaction rate under co-diffusion and counter-diffusion configurations. <i>Journal of Membrane Science</i> , 2009, 335, 76-82.	4.1	14
84	Treatment of Fluoroacetate by a <i>Pseudomonas fluorescens</i> Biofilm Grown in Membrane Aerated Biofilm Reactor. <i>Environmental Science & Technology</i> , 2009, 43, 6776-6785.	4.6	22
85	Model-based comparative performance analysis of membrane aerated biofilm reactor configurations. <i>Biotechnology and Bioengineering</i> , 2008, 99, 1361-1373.	1.7	40
86	Membrane-Aerated Biofilms for High Rate Biotreatment: Performance Appraisal, Engineering Principles, Scale-up, and Development Requirements. <i>Environmental Science & Technology</i> , 2008, 42, 1833-1844.	4.6	211
87	Membrane Bioreactors for Wastewater Treatment. , 2008, , 1007-1022.		0
88	Tracer measurements reveal experimental evidence of biofilm consolidation. <i>Biotechnology and Bioengineering</i> , 2007, 98, 913-918.	1.7	14
89	The Effect of Mixing on the Metastable Zone Width and Nucleation Kinetics in the Anti-Solvent Crystallization of Benzoic Acid. <i>Chemical Engineering Research and Design</i> , 2007, 85, 945-952.	2.7	121
90	Use of Fed-Batch Cultivation for Achieving High Cell Densities for the Pilot-Scale Production of a Recombinant Protein (Phenylalanine Dehydrogenase) in <i>Escherichia coli</i> . <i>Biotechnology Progress</i> , 2006, 22, 889-897.	1.3	12

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91	Engineering aspects of a mixed methanotrophic culture in a membrane-aerated biofilm reactor. <i>Water Science and Technology</i> , 2004, 49, 255-262.	1.2	5
92	Characteristics of a methanotrophic culture in a membrane-aerated biofilm reactor. <i>Biotechnology Progress</i> , 2004, 20, 1082-1090.	1.3	30
93	Mass transfer analysis of a membrane aerated reactor. <i>Biochemical Engineering Journal</i> , 2004, 18, 159-167.	1.8	14
94	Biofilm development in a membrane-aerated biofilm reactor: Effect of flow velocity on performance. <i>Biotechnology and Bioengineering</i> , 2000, 67, 476-486.	1.7	71
95	Biofilm development in a membrane-aerated biofilm reactor: effect of intra-membrane oxygen pressure on performance. <i>Bioprocess and Biosystems Engineering</i> , 2000, 23, 457-465.	1.7	36
96	Review of membrane aerated biofilm reactors. <i>Resources, Conservation and Recycling</i> , 1999, 27, 203-215.	5.3	125
97	Oxygen mass transfer characteristics in a membrane-aerated biofilm reactor. , 1999, 62, 183-192.		89
98	Investigating energy and operation flexibility of membrane bioreactors by using benchmark simulations. , 0, 211, 456-462.		0