

Eoin Casey

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

96
papers

2,490
citations

25
h-index

47
g-index

101
ext. papers

3,021
ext. citations

6.7
avg, IF

5.53
L-index

#	Paper	IF	Citations
96	Electric Field Tunability of Photoluminescence from a Hybrid Peptide-Plasmonic Metal Microfabricated Chip.. <i>Jacs Au</i> , 2021 , 1, 1987-1995		0
95	Enzyme-Functionalized Mesoporous Silica Nanoparticles to Target and Disperse Biofilms. <i>International Journal of Nanomedicine</i> , 2021 , 16, 1929-1942	7.3	3
94	Biomimetic Polymer Surfaces by High Resolution Molding of the Wings of Different Cicadas. <i>Materials</i> , 2021 , 14,	3.5	3
93	Synthesis and self-assembly of curcumin-modified amphiphilic polymeric micelles with antibacterial activity. <i>Journal of Nanobiotechnology</i> , 2021 , 19, 104	9.4	12
92	Self-assembly and regeneration strategy for mitigation of membrane biofouling by the exploitation of enzymatic nanoparticles. <i>Chemical Engineering Journal</i> , 2021 , 412, 128666	14.7	7
91	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	11.1	8
90	Osmotic backwashing of forward osmosis membranes to detach adhered bacteria and mitigate biofouling. <i>Journal of Membrane Science</i> , 2021 , 620, 118838	9.6	6
89	Demand response through reject water scheduling in water resource recovery facilities: A demonstration with BSM2. <i>Water Research</i> , 2021 , 188, 116516	12.5	0
88	A polyhydroxyalkanoates bioprocess improvement case study based on four fed-batch feeding strategies. <i>Microbial Biotechnology</i> , 2021 ,	6.3	1
87	Oxidation mechanism of chlortetracycline in a membrane aerated biofilm reactor. <i>Environmental Technology and Innovation</i> , 2021 , 24, 101910	7	3
86	Membrane bioreactors for the production of value-added products: Recent developments, challenges and perspectives. <i>Bioresource Technology</i> , 2021 , 341, 125793	11	8
85	Enhancing curcumin's solubility and antibiofilm activity via silica surface modification. <i>Nanoscale Advances</i> , 2020 , 2, 1694-1708	5.1	14
84	A high throughput method to investigate nanoparticle entrapment efficiencies in biofilms. <i>Colloids and Surfaces B: Biointerfaces</i> , 2020 , 193, 111123	6	7
83	Surface functionalization-dependent localization and affinity of SiO nanoparticles within the biofilm EPS matrix. <i>Biofilm</i> , 2020 , 2, 100029	5.9	8
82	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	7.9	4
81	Modelling Demand and Response in WWTPs: Extension of BSM1 with Aeration Tank Settling. <i>Advances in Science, Technology and Innovation</i> , 2020 , 457-459	0.3	
80	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	0.3	1

79	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	10.7	24
78	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	3.7	2
77	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	5.6	13
76	Tailoring Nanoparticle-Biofilm Interactions to Increase the Efficacy of Antimicrobial Agents Against. <i>International Journal of Nanomedicine</i> , 2020 , 15, 4779-4791	7.3	19
75	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	2.2	4
74	Simultaneous oxidation of ammonium and tetracycline in a membrane aerated biofilm reactor. <i>Science of the Total Environment</i> , 2019 , 682, 553-560	10.2	24
73	Population dynamics of a dual - biofilm in a capillary bioreactor. <i>Biofouling</i> , 2019 , 35, 299-307	3.3	1
72	Production of Whey-Derived DPP-IV Inhibitory Peptides Using an Enzymatic Membrane Reactor. <i>Food and Bioprocess Technology</i> , 2019 , 12, 799-808	5.1	14
71	Nanoparticle-Biofilm Interactions: The Role of the EPS Matrix. <i>Trends in Microbiology</i> , 2019 , 27, 915-926	12.4	152
70	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	9.5	39
69	Extraction and identification of components of the biofilm matrix in <i>Pseudomonas</i> species biofilms. <i>Access Microbiology</i> , 2019 , 1,	1	2
68	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	6	19
67	One-directional modelling to assess the mechanistic actions of power ultrasound on NaCl diffusion in pork. <i>Ultrasonics Sonochemistry</i> , 2018 , 40, 206-212	8.9	12
66	Analysis of surrogate bacterial cell transport to nanofiltration membranes: Effect of salt concentration and hydrodynamics. <i>Separation and Purification Technology</i> , 2018 , 207, 498-505	8.3	1
65	Biofilm recruitment under nanofiltration conditions: the influence of resident biofilm structural parameters on planktonic cell invasion. <i>Microbial Biotechnology</i> , 2018 , 11, 264-267	6.3	2
64	Market Effects of Industrial Demand Response and Flexibility Potential from Wastewater Treatment Facilities 2018 ,		4
63	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	12.8	28
62	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	9.3	20

61	The Triple Bottom Line for Efficiency: Integrating Systems Within Water and Energy Networks. <i>IEEE Power and Energy Magazine</i> , 2017 , 15, 34-42	2.4	4
60	Dynamics of silver elution from functionalised antimicrobial nanofiltration membranes. <i>Biofouling</i> , 2017 , 33, 520-529	3.3	0
59	Simultaneous removal of malachite green and hexavalent chromium by <i>Cunninghamella elegans</i> biofilm in a semi-continuous system. <i>International Biodeterioration and Biodegradation</i> , 2017 , 125, 142-149	4.8	20
58	Nanofiltration-induced cell death: An integral perspective of early stage biofouling under permeate flux conditions. <i>Journal of Membrane Science</i> , 2017 , 541, 93-100	9.6	4
57	Revealing region-specific biofilm viscoelastic properties by means of a micro-rheological approach. <i>Npj Biofilms and Microbiomes</i> , 2016 , 2, 5	8.2	16
56	Cicada Wing Surface Topography: An Investigation into the Bactericidal Properties of Nanostructural Features. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 14966-74	9.5	191
55	Interfacial separation of a mature biofilm from a glass surface - A combined experimental and cohesive zone modelling approach. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 54, 205-18	4.1	9
54	Antifouling activity of enzyme-functionalized silica nanobeads. <i>Biotechnology and Bioengineering</i> , 2016 , 113, 501-12	4.9	15
53	Hydrodynamics and gas transfer performance of confined hollow fibre membrane modules with the aid of computational fluid dynamics. <i>Journal of Membrane Science</i> , 2016 , 513, 117-128	9.6	14
52	Material- and feature-dependent effects on cell adhesion to micro injection moulded medical polymers. <i>Colloids and Surfaces B: Biointerfaces</i> , 2016 , 145, 46-54	6	9
51	Production of drug metabolites by immobilised <i>Cunninghamella elegans</i> : from screening to scale up. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2015 , 42, 799-806	4.2	17
50	Nanofiltration and reverse osmosis surface topographical heterogeneities: Do they matter for initial bacterial adhesion?. <i>Journal of Membrane Science</i> , 2015 , 486, 10-20	9.6	14
49	Performance analysis of a pilot-scale membrane aerated biofilm reactor for the treatment of landfill leachate. <i>Chemical Engineering Journal</i> , 2015 , 273, 120-129	14.7	63
48	High cell density cultivation of <i>Pseudomonas putida</i> KT2440 using glucose without the need for oxygen enriched air supply. <i>Biotechnology and Bioengineering</i> , 2015 , 112, 725-33	4.9	40
47	Mechanical properties of a mature biofilm from a wastewater system: from microscale to macroscale level. <i>Biofouling</i> , 2015 , 31, 651-64	3.3	19
46	Understanding particle deposition kinetics on NF membranes: A focus on micro-beads and membrane interactions at different environmental conditions. <i>Journal of Membrane Science</i> , 2015 , 475, 367-375	9.6	12
45	Comparison of biomass detachment from biofilms of two different <i>Pseudomonas</i> spp. under constant shear conditions. <i>Biofouling</i> , 2015 , 31, 13-8	3.3	5
44	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	9.6	171

43	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	1.6	3
42	A physical impact of organic fouling layers on bacterial adhesion during nanofiltration. <i>Water Research</i> , 2014 , 67, 118-28	12.5	19
41	Characteristics of <i>Streptomyces griseus</i> biofilms in continuous flow tubular reactors. <i>FEMS Microbiology Letters</i> , 2014 , 352, 157-64	2.9	12
40	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, 9217-28	5.7	14
39	Bacterial adhesion onto nanofiltration and reverse osmosis membranes: effect of permeate flux. <i>Water Research</i> , 2014 , 63, 296-305	12.5	20
38	Upon impact: the fate of adhering <i>Pseudomonas fluorescens</i> cells during nanofiltration. <i>Environmental Science & Technology</i> , 2014 , 48, 9641-50	10.3	10
37	The significance of calcium ions on <i>Pseudomonas fluorescens</i> biofilms - a structural and mechanical study. <i>Biofouling</i> , 2014 , 30, 859-69	3.3	27
36	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 , 160, 1760-1771	2.9	11
35	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, 611-20	5.7	51
34	Conversion of post consumer polyethylene to the biodegradable polymer polyhydroxyalkanoate. <i>Applied Microbiology and Biotechnology</i> , 2014 , 98, 4223-32	5.7	64
33	Detachment characteristics of a mixed culture biofilm using particle size analysis. <i>Chemical Engineering Journal</i> , 2013 , 228, 1140-1147	14.7	15
32	Filamentous fungal biofilm for production of human drug metabolites. <i>Applied Microbiology and Biotechnology</i> , 2013 , 97, 5955-63	5.7	23
31	Disinfection of a polyamide nanofiltration membrane using ethanol. <i>Journal of Membrane Science</i> , 2013 , 448, 170-179	9.6	26
30	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, 202-9	11	101
29	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, 51-8	6.4	111
28	The importance of laboratory water quality for studying initial bacterial adhesion during NF filtration processes. <i>Water Research</i> , 2013 , 47, 2909-20	12.5	19
27	Phenol removal from four different natural soil types by <i>Bacillus</i> sp. PS11. <i>Applied Soil Ecology</i> , 2013 , 70, 1-8	5	14
26	Membrane Aerated Biofilm Reactors 2013 , 1		2

25	Understanding the Mechanisms of Biofouling on Nanofiltration Membranes: Effect of the Biofilm Structure on Solute Removal. <i>Procedia Engineering</i> , 2012 , 44, 1557-1560		2
24	Performance of a Pilot Scale Membrane Aerated Biofilm Reactor for the Treatment of Landfill Leachate. <i>Procedia Engineering</i> , 2012 , 44, 2082-2084		1
23	Factors influencing 4-fluorobenzoate degradation in biofilm cultures of <i>Pseudomonas knackmussii</i> B13. <i>Water Research</i> , 2011 , 45, 3512-20	12.5	31
22	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, 204-7	6.9	39
21	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, 2447-55	4.9	20
20	The role of meso-mixing in anti-solvent crystallization processes. <i>Chemical Engineering Science</i> , 2011 , 66, 2523-2534	4.4	30
19	Characterization of a modified rotating disk reactor for the cultivation of <i>Staphylococcus epidermidis</i> biofilm. <i>Journal of Applied Microbiology</i> , 2010 , 109, 2105-17	4.7	12
18	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, 2899-907	4.8	29
17	Oxygen-mediated regulation of biofilm development is controlled by the alternative sigma factor sigma(B) in <i>Staphylococcus epidermidis</i> . <i>Applied and Environmental Microbiology</i> , 2009 , 75, 261-4	4.8	25
16	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, 1042-7	4.9	16
15	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	9.6	11
14	Treatment of fluoroacetate by a <i>Pseudomonas fluorescens</i> biofilm grown in membrane aerated biofilm reactor. <i>Environmental Science & Technology</i> , 2009 , 43, 6776-85	10.3	19
13	Membrane-aerated biofilms for high rate biotreatment: performance appraisal, engineering principles, scale-up, and development requirements. <i>Environmental Science & Technology</i> , 2008 , 42, 1833-44	10.3	179
12	Membrane Bioreactors for Wastewater Treatment 2008 , 1007-1022		
11	Model-based comparative performance analysis of membrane aerated biofilm reactor configurations. <i>Biotechnology and Bioengineering</i> , 2008 , 99, 1361-73	4.9	32
10	Tracer measurements reveal experimental evidence of biofilm consolidation. <i>Biotechnology and Bioengineering</i> , 2007 , 98, 913-8	4.9	11
9	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	5.5	97
8	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, 889-97	2.8	9

7	Engineering aspects of a mixed methanotrophic culture in a membrane-aerated biofilm reactor. <i>Water Science and Technology</i> , 2004 , 49, 255-262	2.2	4
6	Characteristics of a methanotrophic culture in a membrane-aerated biofilm reactor. <i>Biotechnology Progress</i> , 2004 , 20, 1082-90	2.8	25
5	Mass transfer analysis of a membrane aerated reactor. <i>Biochemical Engineering Journal</i> , 2004 , 18, 159-167	4.2	13
4	Biofilm development in a membrane-aerated biofilm reactor: Effect of flow velocity on performance. <i>Biotechnology and Bioengineering</i> , 2000 , 67, 476-486	4.9	54
3	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	3.7	25
2	Review of membrane aerated biofilm reactors. <i>Resources, Conservation and Recycling</i> , 1999 , 27, 203-215	11.9	106
1	Oxygen mass transfer characteristics in a membrane-aerated biofilm reactor. <i>Biotechnology and Bioengineering</i> , 1999 , 62, 183-92	4.9	69