David Mccarthy

List of Publications by Year
in descending order

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148 papers	5,868 citations	81900 39 h-index	91884 69 g-index
153 all docs	153 docs citations	153 times ranked	6501 citing authors

#	Article	IF	Citations
1	Simultaneously Tuning Charge Separation and Oxygen Reduction Pathway on Graphitic Carbon Nitride by Polyethylenimine for Boosted Photocatalytic Hydrogen Peroxide Production. ACS Catalysis, 2020, 10, 3697-3706.	11.2	275
2	Highly dispersed TiO2 nanocrystals and WO3 nanorods on reduced graphene oxide: Z-scheme photocatalysis system for accelerated photocatalytic water disinfection. Applied Catalysis B: Environmental, 2017, 218, 163-173.	20.2	233
3	A critical review of integrated urban water modelling â€“ Urban drainage and beyond. Environmental Modelling and Software, 2014, 54, 88-107.	4.5	229
4	Global phylogeography and ancient evolution of the widespread human gut virus crAssphage. Nature Microbiology, 2019, 4, 1727-1736.	13.3	184
5	Silver/Reduced Graphene Oxide Hydrogel as Novel Bactericidal Filter for Pointâ€ofâ€Use Water Disinfection. Advanced Functional Materials, 2015, 25, 4344-4351.	14.9	174
6	Highly dispersed TiO2 nanocrystals and carbon dots on reduced graphene oxide: Ternary nanocomposites for accelerated photocatalytic water disinfection. Applied Catalysis B: Environmental, 2017, 202, 33-41.	20.2	155
7	Comparison of different uncertainty techniques in urban stormwater quantity and quality modelling. Water Research, 2012, 46, 2545-2558.	11.3	153
8	Sewage pollution in urban stormwater runoff as evident from the widespread presence of multiple microbial and chemical source tracking markers. Science of the Total Environment, 2013, 463-464, 488-496.	8.0	152
9	Intra-event variability of Escherichia coli and total suspended solids in urban stormwater runoff. Water Research, 2012, 46, 6661-6670.	11.3	134
10	Achieving multiple benefits from stormwater harvesting. Water Science and Technology, 2007, 55, 135-144.	2.5	128
11	Predicting physical clogging of porous and permeable pavements. Journal of Hydrology, 2013, 481, 48-55.	5.4	118
12	Into the deep: Evaluation of SourceTracker for assessment of faecal contamination of coastal waters. Water Research, 2016, 93, 242-253.	11.3	117
13	Redefining the stormwater first flush phenomenon. Water Research, 2010, 44, 2487-2498.	11.3	115
14	Nano-layer based 1T-rich MoS2/g-C3N4 co-catalyst system for enhanced photocatalytic and photoelectrochemical activity. Applied Catalysis B: Environmental, 2020, 268, 118466.	20.2	112
15	Cooperatively modulating reactive oxygen species generation and bacteria-photocatalyst contact over graphitic carbon nitride by polyethylenimine for rapid water disinfection. Applied Catalysis B: Environmental, 2020, 274, 119095.	20.2	97
16	Green walls for greywater reuse: Understanding the role of media on pollutant removal. Ecological Engineering, 2017, 102, 625-635.	3.6	95
17	Biofilters for Stormwater Harvesting: Understanding the Treatment Performance of Key Metals That Pose a Risk for Water Use. Environmental Science & Technology, 2012, 46, 5100-5108.	10.0	90
18	Pesticide occurrence and spatio-temporal variability in urban run-off across Australia. Water Research, 2017, 115, 245-255.	11.3	90

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19	Uncertainties in stormwater E. coli levels. Water Research, 2008, 42, 1812-1824.	11.3	85
20	Passive Sampling of SARS-CoV-2 for Wastewater Surveillance. Environmental Science & Technology, 2021, 55, 10432-10441.	10.0	85
21	Performance and sensitivity analysis of stormwater models using a Bayesian approach and long-term high resolution data. Environmental Modelling and Software, 2011, 26, 1225-1239.	4.5	83
22	The validation of stormwater biofilters for micropollutant removal using in situ challenge tests. Ecological Engineering, 2014, 67, 1-10.	3.6	83
23	Urban stormwater harvesting â€“ sensitivity of a storage behaviour model. Environmental Modelling and Software, 2008, 23, 782-793.	4.5	78
24	Removal of Clostridium perfringens, Escherichia coli and F-RNA coliphages by stormwater biofilters. Ecological Engineering, 2012, 49, 137-145.	3.6	75
25	E. coli removal in laboratory scale stormwater biofilters: Influence of vegetation and submerged zone. Journal of Hydrology, 2014, 519, 814-822.	5.4	73
26	Toxicity characterization of urban stormwater with bioanalytical tools. Water Research, 2013, 47, 5594-5606.	11.3	69
27	Highly recoverable TiO2â€“GO nanocomposites for stormwater disinfection. Water Research, 2016, 94, 363-370.	11.3	66
28	Escherichia coli in urban stormwater: explaining their variability. Water Science and Technology, 2007, 56, 27-34.	2.5	65
29	Assessment of clogging phenomena in granular filter media used for stormwater treatment. Journal of Hydrology, 2014, 512, 518-527.	5.4	62
30	Plant-Microbe Interactions Drive Denitrification Rates, Dissolved Nitrogen Removal, and the Abundance of Denitrification Genes in Stormwater Control Measures. Environmental Science & Technology, 2018, 52, 9320-9329.	10.0	57
31	Source tracking using microbial community fingerprints: Method comparison with hydrodynamic modelling. Water Research, 2017, 109, 253-265.	11.3	56
32	Modelling transitions in urban water systems. Water Research, 2017, 126, 501-514.	11.3	52
33	The influence of media type on removal of arsenic, iron and boron from acidic wastewater in horizontal flow wetland microcosms planted with Phragmites australis. Chemical Engineering Journal, 2014, 246, 217-228.	12.7	49
34	Evaluating Escherichia coli removal performance in stormwater biofilters: a laboratory-scale study. Water Science and Technology, 2012, 66, 1132-1138.	2.5	48
35	Optimisation of lightweight green wall media for greywater treatment and reuse. Building and Environment, 2018, 131, 99-107.	6.9	48
36	An in situ assembled WO₃â€“TiO₂ vertical heterojunction for enhanced Z-scheme photocatalytic activity. Nanoscale, 2020, 12, 8775-8784.	5.6	47

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37	Designing green walls for greywater treatment: The role of plants and operational factors on nutrient removal. Ecological Engineering, 2019, 130, 184-195.	3.6	46
38	Removal of E. coli from urban stormwater using antimicrobial-modified filter media. Journal of Hazardous Materials, 2014, 271, 73-81.	12.4	41
39	Identifying heavy metal levels in historical flood water deposits using sediment cores. Water Research, 2016, 105, 34-46.	11.3	41
40	Escherichia coli removal in copper-zeolite-integrated stormwater biofilters: Effect of vegetation, operational time, intermittent drying weather. Ecological Engineering, 2016, 90, 234-243.	3.6	39
41	A planning algorithm for quantifying decentralised water management opportunities in urban environments. Water Science and Technology, 2013, 68, 1857-1865.	2.5	38
42	Stormwater biofilter treatment model (MPiRe) for selected micro-pollutants. Water Research, 2016, 89, 180-191.	11.3	38
43	Heavy Metal Contamination of Vegetables Irrigated by Urban Stormwater: A Matter of Time?. PLoS ONE, 2014, 9, e112441.	2.5	38
44	Assessment of Impact of Filter Design Variables on Clogging in Stormwater Filters. Water Resources Management, 2014, 28, 1873-1885.	3.9	37
45	Real time control of biofilters delivers stormwater suitable for harvesting and reuse. Water Research, 2020, 169, 115257.	11.3	37
46	Stormwater quality models: performance and sensitivity analysis. Water Science and Technology, 2010, 62, 837-843.	2.5	36
47	Revisiting land use classification and spatial aggregation for modelling integrated urban water systems. Landscape and Urban Planning, 2015, 143, 43-55.	7.5	36
48	Effective treatment of greywater via green wall biofiltration and electrochemical disinfection. Water Research, 2020, 185, 116228.	11.3	36
49	Impacts of measured data uncertainty on urban stormwater models. Journal of Hydrology, 2014, 508, 28-42.	5.4	35
50	Stormwater disinfection using electrochemical oxidation: A feasibility investigation. Water Research, 2018, 140, 301-310.	11.3	35
51	Predicting long term removal of heavy metals from porous pavements for stormwater treatment. Water Research, 2018, 142, 236-245.	11.3	35
52	Green wall height and design optimisation for effective greywater pollution treatment and reuse. Journal of Environmental Management, 2020, 261, 110173.	7.8	35
53	Passive sampling, a practical method for wastewater-based surveillance of SARS-CoV-2. Environmental Research, 2022, 204, 112058.	7.5	35
54	Biofiltration for stormwater harvesting: Comparison of Campylobacter spp. and Escherichia coli removal under normal and challenging operational conditions. Journal of Hydrology, 2016, 537, 248-259.	5.4	34

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55	Modelling Interactions Between Lot-Scale Decentralised Water Infrastructure and Urban Form â€“ a Case Study on Infiltration Systems. Water Resources Management, 2013, 27, 4845-4863.	3.9	32
56	Greenhouse gas emissions from integrated urban drainage systems: Where do we stand?. Journal of Hydrology, 2018, 559, 307-314.	5.4	31
57	Human Bacteroides and total coliforms as indicators of recent combined sewer overflows and rain events in urban creeks. Science of the Total Environment, 2018, 630, 967-976.	8.0	30
58	Understanding spatiotemporal variability of in-stream water quality in urban environments â€“ A case study of Melbourne, Australia. Journal of Environmental Management, 2019, 246, 203-213.	7.8	30
59	Escherichia coli concentrations and loads in an urbanised catchment: The Yarra River, Australia. Journal of Hydrology, 2013, 497, 51-61.	5.4	29
60	Stable copper-zeolite filter media for bacteria removal in stormwater. Journal of Hazardous Materials, 2014, 273, 222-230.	12.4	29
61	Human and environmental health risks and benefits associated with use of urban stormwater. Wiley Interdisciplinary Reviews: Water, 2015, 2, 683-699.	6.5	29
62	Study design, rationale and methods of the Revitalising Informal Settlements and their Environments (RISE) study: a cluster randomised controlled trial to evaluate environmental and human health impacts of a water-sensitive intervention in informal settlements in Indonesia and Fiji. BMJ Open, 2021, 11, e042850.	1.9	29
63	Assessment of the Impact of Stormwater Characteristics on Clogging in Stormwater Filters. Water Resources Management, 2015, 29, 1031-1048.	3.9	28
64	Assessment of sampling strategies for estimation of site mean concentrations of stormwater pollutants. Water Research, 2018, 129, 297-304.	11.3	28
65	Effective electrochemical inactivation of Microcystis aeruginosa and degradation of microcystins via a novel solid polymer electrolyte sandwich. Chemical Engineering Journal, 2018, 350, 616-626.	12.7	28
66	A spatial planning-support system for generating decentralised urban stormwater management schemes. Science of the Total Environment, 2020, 726, 138282.	8.0	27
67	Evaluation of Techniques for Measuring Microbial Hazards in Bathing Waters: A Comparative Study. PLoS ONE, 2016, 11, e0155848.	2.5	27
68	Modelling characteristics of the urban form to support water systems planning. Environmental Modelling and Software, 2018, 104, 249-269.	4.5	26
69	The impact of stormwater biofilter design and operational variables on nutrient removal - a statistical modelling approach. Water Research, 2021, 188, 116486.	11.3	26
70	Monitoring of SARS-CoV-2 in sewersheds with low COVID-19 cases using a passive sampling technique. Water Research, 2022, 218, 118481.	11.3	26
71	Survival of Escherichia coli in stormwater biofilters. Environmental Science and Pollution Research, 2014, 21, 5391-5401.	5.3	24
72	Environmental monitoring of waterborne Campylobacter: evaluation of the Australian standard and a hybrid extraction-free MPN-PCR method. Frontiers in Microbiology, 2015, 6, 74.	3.5	24

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73	Ultrathin titanium oxide nanosheets film with memory bactericidal activity. Nanoscale, 2016, 8, 18050-18056.	5.6	24
74	A planetary health model for reducing exposure to faecal contamination in urban informal settlements: Baseline findings from Makassar, Indonesia. Environment International, 2021, 155, 106679.	10.0	24
75	Development and testing of a model for Micro-Organism Prediction in Urban Stormwater (MOPUS). Journal of Hydrology, 2011, 409, 236-247.	5.4	23
76	Surrogates for herbicide removal in stormwater biofilters. Water Research, 2015, 81, 64-71.	11.3	23
77	Electrochemical oxidation disinfects urban stormwater: Major disinfection mechanisms and longevity tests. Science of the Total Environment, 2019, 646, 1440-1447.	8.0	23
78	How well do stormwater green infrastructure respond to changing climatic conditions?. Journal of Hydrology, 2021, 603, 126887.	5.4	23
79	Improving human and environmental health in urban informal settlements: the Revitalising Informal Settlements and their Environments (RISE) programme. Lancet Planetary Health, The, 2018, 2, S29.	11.4	22
80	Biofilters for urban agriculture: Metal uptake of vegetables irrigated with stormwater. Ecological Engineering, 2018, 122, 177-186.	3.6	22
81	Modelling cities and water infrastructure dynamics. Proceedings of the Institution of Civil Engineers: Engineering Sustainability, 2013, 166, 301-308.	0.7	21
82	Monitoring of diverse enteric pathogens across environmental and host reservoirs with TaqMan array cards and standard qPCR: a methodological comparison study. Lancet Planetary Health, The, 2021, 5, e297-e308.	11.4	21
83	Can we model the implementation of water sensitive urban design in evolving cities?. Water Science and Technology, 2015, 71, 149-156.	2.5	20
84	Electrochemical inactivation of Cylindrospermopsis raciborskii and removal of the cyanotoxin cylindrospermopsin. Journal of Hazardous Materials, 2018, 344, 241-248.	12.4	20
85	Stormwater constructed wetlands: A source or a sink of Campylobacter spp.. Water Research, 2018, 131, 218-227.	11.3	19
86	Sediment cores as archives of historical changes in floodplain lake hydrology. Science of the Total Environment, 2016, 544, 1008-1019.	8.0	18
87	Current Stormwater Harvesting Guidelines Are Inadequate for Mitigating Risk from Campylobacter During Nonpotable Reuse Activities. Environmental Science & Technology, 2017, 51, 12498-12507.	10.0	18
88	Tannic acid coating and in situ deposition of silver nanoparticles to improve the antifouling properties of an ultrafiltration membrane. Journal of Applied Polymer Science, 2019, 136, 47314.	2.6	18
89	New prebiotic chemistry inspired filter media for stormwater/greywater disinfection. Journal of Hazardous Materials, 2019, 378, 120749.	12.4	17
90	Whatâ€™s the risk? Identifying potential human pathogens within grey-headed flying foxes faeces. PLoS ONE, 2018, 13, e0191301.	2.5	16

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91	Stormwater herbicides removal with a solar-driven advanced oxidation process: A feasibility investigation. Water Research, 2021, 190, 116783.	11.3	16
92	Performance of envissâ„¢ stormwater filters: results of a laboratory trial. Water Science and Technology, 2012, 66, 719-727.	2.5	15
93	Constructing ultrathin film with â€œmemoryâ€•photocatalytic activity from monolayered tungstate nanodots. Chemical Communications, 2016, 52, 6985-6988.	4.1	15
94	Effect of environmental parameters on pathogen and faecal indicator organism concentrations within an urban estuary. Estuarine, Coastal and Shelf Science, 2016, 174, 18-26.	2.1	15
95	Plants that can kill; improving E. coli removal in stormwater treatment systems using Australian plants with antibacterial activity. Ecological Engineering, 2017, 107, 120-125.	3.6	15
96	Stormwater Biofilters as Barriers against Campylobacter jejuni, Cryptosporidium Oocysts and Adenoviruses; Results from a Laboratory Trial. Water (Switzerland), 2017, 9, 949.	2.7	15
97	Electrochemical oxidation for stormwater disinfection: How does real stormwater chemistry impact on pathogen removal and disinfection by-products level?. Chemosphere, 2018, 213, 226-234.	8.2	15
98	Inactivation of biofilm-bound bacterial cells using irradiation across UVC wavelengths. Water Research, 2022, 217, 118379.	11.3	15
99	Evaluating Escherichia coli removal performance in stormwater biofilters: a preliminary modelling approach. Water Science and Technology, 2013, 67, 2467-2475.	2.5	14
100	Urban drainage models â€“ simplifying uncertainty analysis for practitioners. Water Science and Technology, 2013, 68, 2136-2143.	2.5	14
101	In Situ Calibration of Passive Samplers for Viruses in Wastewater. ACS ES&T Water, 2022, 2, 1881-1890.	4.6	14
102	Comparison of Auto Sampling and Passive Sampling Methods for SARS-CoV-2 Detection in Wastewater. Pathogens, 2022, 11, 359.	2.8	14
103	Stormwater biofilter treatment model for faecal microorganisms. Science of the Total Environment, 2018, 630, 992-1002.	8.0	13
104	Biotreatment technologies for stormwater harvesting: critical perspectives. Current Opinion in Biotechnology, 2019, 57, 191-196.	6.6	13
105	Testing of new stormwater pollution build-up algorithms informed by a genetic programming approach. Journal of Environmental Management, 2019, 241, 12-21.	7.8	13
106	A Low-Cost Water Depth and Electrical Conductivity Sensor for Detecting Inputs into Urban Stormwater Networks. Sensors, 2021, 21, 3056.	3.8	13
107	Modelling shallow and narrow urban salt-wedge estuaries: Evaluation of model performance and sensitivity to optimise input data collection. Estuarine, Coastal and Shelf Science, 2019, 217, 9-27.	2.1	12
108	Presence and survival of culturable Campylobacter spp. and Escherichia coli in a temperate urban estuary. Science of the Total Environment, 2016, 569-570, 1201-1211.	8.0	11

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109	The Impact of Pipe Material on the Diversity of Microbial Communities in Drinking Water Distribution Systems. Frontiers in Microbiology, 2021, 12, 779016.	3.5	11
110	Stormwater biofilters: A new validation modelling tool. Ecological Engineering, 2016, 87, 53-61.	3.6	10
111	Biofilters as effective pathogen barriers for greywater reuse. Ecological Engineering, 2019, 138, 79-87.	3.6	10
112	Integrated conceptual modelling of faecal contamination in an urban estuary catchment. Water Science and Technology, 2015, 72, 1472-1480.	2.5	9
113	Methodologies for Pre-Validation of Biofilters and Wetlands for Stormwater Treatment. PLoS ONE, 2015, 10, e0125979.	2.5	9
114	Uncertainties in historical pollution data from sedimentary records from an Australian urban floodplain lake. Journal of Hydrology, 2018, 560, 560-571.	5.4	9
115	Enhancing Escherichia coli removal in stormwater biofilters with a submerged zone: balancing the impact of vegetation, filter media and extended dry weather periods. Urban Water Journal, 2019, 16, 460-468.	2.1	9
116	Validation of stormwater biofilters using in-situ columns. Science of the Total Environment, 2016, 544, 48-55.	8.0	8
117	Performance analysis of a stormwater green infrastructure model for flow and water quality predictions. Journal of Environmental Management, 2022, 316, 115259.	7.8	8
118	The development of a novel approach for assessment of the first flush in urban stormwater discharges. Water Science and Technology, 2010, 61, 2681-2688.	2.5	7
119	Zinc-sulphate-heptahydrate coated activated carbon for microbe removal from stormwater. Water Science and Technology, 2012, 66, 1582-1589.	2.5	7
120	Tidal fluctuations influence E. coli concentrations in urban estuaries. Marine Pollution Bulletin, 2017, 119, 226-230.	5.0	7
121	Validation and uncertainty analysis of a stormwater biofilter treatment model for faecal microorganisms. Science of the Total Environment, 2020, 709, 136157.	8.0	7
122	Rainwater for residential hot water supply: Managing microbial risks. Science of the Total Environment, 2021, 782, 146889.	8.0	7
123	Advancing the Sponge City Agenda: Evaluation of 22 plant species across a broad range of life forms for stormwater management. Ecological Engineering, 2022, 175, 106501.	3.6	7
124	Sensitivity analysis of an urban stormwater microorganism model. Water Science and Technology, 2010, 62, 1393-1400.	2.5	6
125	Digging up the dirty past: evidence for stormwaterâ€™s contribution to pollution of an urban floodplain lake. Marine and Freshwater Research, 2015, 66, 596.	1.3	6
126	Conceptual modelling of E. coli in urban stormwater drains, creeks and rivers. Journal of Hydrology, 2017, 555, 129-140.	5.4	6

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127	Spatial variability of E. coli in an urban salt-wedge estuary. Marine Pollution Bulletin, 2017, 114, 114-122.	5.0	6
128	Evaluation of Active, Beautiful, Clean Waters Design Features in Tropical Urban Cities: A Case Study in Singapore. Water (Switzerland), 2022, 14, 468.	2.7	6
129	Uncertainty analysis in urban drainage modelling: should we break our back for normally distributed residuals?. Water Science and Technology, 2013, 68, 1271-1279.	2.5	5
130	Escherichia coli survival and transfer in estuarine bed sediments. River Research and Applications, 2018, 34, 606-614.	1.7	5
131	Can we use a simple modelling tool to validate stormwater biofilters for herbicides treatment?. Urban Water Journal, 2019, 16, 412-420.	2.1	5
132	Real-time analysis of atrazine biodegradation and sessile bacterial growth: A quartz crystal microbalance with dissipation monitoring study. Chemosphere, 2019, 225, 871-879.	8.2	5
133	Copper-zeolite integrated stormwater biofilter for nutrient removal â€“ the impact of intermittent wetting and drying conditions. Blue-Green Systems, 2020, 2, 352-363.	2.0	5
134	Interactive effect of temperature and plant species on nitrogen cycling and treatment in stormwater biofiltration systems. Science of the Total Environment, 2022, 831, 154911.	8.0	5
135	Using sediment cores to establish targets for the remediation of aquatic environments. Water Science and Technology, 2016, 73, 628-635.	2.5	4
136	Potential control of cyanobacterial blooms by using a floatingâ€mobile electrochemical system. Journal of Chemical Technology and Biotechnology, 2019, 94, 582-589.	3.2	4
137	What is the efficiency of electro-generation of chlorine with a solid polymer electrolyte assembly?. Chemical Engineering Journal, 2019, 364, 370-375.	12.7	4
138	Illicit discharge detection in stormwater drains using an Arduino-based low-cost sensor network. Water Science and Technology, 2022, 85, 1372-1383.	2.5	4
139	Sustainable micropollutant bioremediation via stormwater biofiltration system. Water Research, 2022, 214, 118188.	11.3	4
140	Salmonella enterica Serovar Typhimurium and Escherichia coli Survival in Estuarine Bank Sediments. International Journal of Environmental Research and Public Health, 2018, 15, 2597.	2.6	3
141	Salmonella from a Microtidal Estuary Are Capable of Invading Human Intestinal Cell Lines. Microbial Ecology, 2020, 79, 259-270.	2.8	3
142	Modelling the clogging of a field filtration system used for stormwater harvesting. Environmental Science: Water Research and Technology, 2020, 6, 993-1003.	2.4	3
143	BoSL FAL pump: A small, low-cost, easily constructed, 3D-printed peristaltic pump for sampling of waters. HardwareX, 2021, 10, e00214.	2.2	3
144	Reducing metal uptake in vegetables irrigated with stormwater. Environmental Science: Water Research and Technology, 2019, 5, 1295-1308.	2.4	2

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145	<i>Campylobacter</i> in an Urban Estuary: Public Health Insights from Occurrence, HeLa Cytotoxicity, and Caco-2 Attachment Cum Invasion. Microbes and Environments, 2019, 34, 436-445.	1.6	2
146	Data collection in urban drainage and stormwater management systems â€“ case studies. , 2021, , 415-469.		1
147	Draft Genome Sequences of Eight Campylobacter volucris Isolates from Freshwater Sources in Victoria, Australia. Microbiology Resource Announcements, 2021, 10, .	0.6	0
148	Assessing Uncertainty of a Biofilter Micropollutant Transport Model MPiRe. Green Energy and Technology, 2019, , 246-250.	0.6	0