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	Passive sampling, a practical method for wastewater-based surveillance of SARS-CoV-2. Environmental Research, 2022, 204, 112058.	7.5	35
2	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
3	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
4	In Situ Calibration of Passive Samplers for Viruses in Wastewater. ACS ES&T Water, 2022, 2, 1881-1890.	4.6	14
5	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
6	Inactivation of biofilm-bound bacterial cells using irradiation across UVC wavelengths. Water Research, 2022, 217, 118379.	11.3	15
7	Comparison of Auto Sampling and Passive Sampling Methods for SARS-CoV-2 Detection in Wastewater. Pathogens, 2022, 11, 359.	2.8	14
8	Sustainable micropollutant bioremediation via stormwater biofiltration system. Water Research, 2022, 214, 118188.	11.3	4
9	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
10	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
11	Performance analysis of a stormwater green infrastructure model for flow and water quality predictions. Journal of Environmental Management, 2022, 316, 115259.	7.8	8
12	The impact of stormwater biofilter design and operational variables on nutrient removal - a statistical modelling approach. Water Research, 2021, 188, 116486.	11.3	26
13	Draft Genome Sequences of Eight Campylobacter volucris Isolates from Freshwater Sources in Victoria, Australia. Microbiology Resource Announcements, 2021, 10, .	0.6	0
14	Stormwater herbicides removal with a solar-driven advanced oxidation process: A feasibility investigation. Water Research, 2021, 190, 116783.	11.3	16
15	A Low-Cost Water Depth and Electrical Conductivity Sensor for Detecting Inputs into Urban Stormwater Networks. Sensors, 2021, 21, 3056.	3.8	13
16	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
17	Passive Sampling of SARS-CoV-2 for Wastewater Surveillance. Environmental Science & Technology, 2021, 55, 10432-10441.	10.0	85
18	Rainwater for residential hot water supply: Managing microbial risks. Science of the Total Environment, 2021, 782, 146889.	8.0	7

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19	Data collection in urban drainage and stormwater management systems â€“ case studies. , 2021, , 415-469.		1
20	BoSL FAL pump: A small, low-cost, easily constructed, 3D-printed peristaltic pump for sampling of waters. HardwareX, 2021, 10, e00214.	2.2	3
21	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
22	How well do stormwater green infrastructure respond to changing climatic conditions?. Journal of Hydrology, 2021, 603, 126887.	5.4	23
23	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
24	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
25	Salmonella from a Microtidal Estuary Are Capable of Invading Human Intestinal Cell Lines. Microbial Ecology, 2020, 79, 259-270.	2.8	3
26	Real time control of biofilters delivers stormwater suitable for harvesting and reuse. Water Research, 2020, 169, 115257.	11.3	37
27	Validation and uncertainty analysis of a stormwater biofilter treatment model for faecal microorganisms. Science of the Total Environment, 2020, 709, 136157.	8.0	7
28	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
29	Effective treatment of greywater via green wall biofiltration and electrochemical disinfection. Water Research, 2020, 185, 116228.	11.3	36
30	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
31	Green wall height and design optimisation for effective greywater pollution treatment and reuse. Journal of Environmental Management, 2020, 261, 110173.	7.8	35
32	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
33	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
34	An in situ assembled WO₃â€“TiO₂ vertical heterojunction for enhanced Z-scheme photocatalytic activity. Nanoscale, 2020, 12, 8775-8784.	5.6	47
35	A spatial planning-support system for generating decentralised urban stormwater management schemes. Science of the Total Environment, 2020, 726, 138282.	8.0	27
36	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

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37	Electrochemical oxidation disinfects urban stormwater: Major disinfection mechanisms and longevity tests. Science of the Total Environment, 2019, 646, 1440-1447.	8.0	23
38	Can we use a simple modelling tool to validate stormwater biofilters for herbicides treatment?. Urban Water Journal, 2019, 16, 412-420.	2.1	5
39	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
40	Global phylogeography and ancient evolution of the widespread human gut virus crAssphage. Nature Microbiology, 2019, 4, 1727-1736.	13.3	184
41	Biofilters as effective pathogen barriers for greywater reuse. Ecological Engineering, 2019, 138, 79-87.	3.6	10
42	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
43	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
44	New prebiotic chemistry inspired filter media for stormwater/greywater disinfection. Journal of Hazardous Materials, 2019, 378, 120749.	12.4	17
45	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
46	Reducing metal uptake in vegetables irrigated with stormwater. Environmental Science: Water Research and Technology, 2019, 5, 1295-1308.	2.4	2
47	Biotreatment technologies for stormwater harvesting: critical perspectives. Current Opinion in Biotechnology, 2019, 57, 191-196.	6.6	13
48	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
49	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
50	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
51	<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
52	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
53	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
54	Assessing Uncertainty of a Biofilter Micropollutant Transport Model MPiRe. Green Energy and Technology, 2019, , 246-250.	0.6	0

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55	Greenhouse gas emissions from integrated urban drainage systems: Where do we stand?. Journal of Hydrology, 2018, 559, 307-314.	5.4	31
56	Modelling characteristics of the urban form to support water systems planning. Environmental Modelling and Software, 2018, 104, 249-269.	4.5	26
57	Optimisation of lightweight green wall media for greywater treatment and reuse. Building and Environment, 2018, 131, 99-107.	6.9	48
58	Stormwater constructed wetlands: A source or a sink of Campylobacter spp.. Water Research, 2018, 131, 218-227.	11.3	19
59	Stormwater disinfection using electrochemical oxidation: A feasibility investigation. Water Research, 2018, 140, 301-310.	11.3	35
60	Uncertainties in historical pollution data from sedimentary records from an Australian urban floodplain lake. Journal of Hydrology, 2018, 560, 560-571.	5.4	9
61	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
62	Stormwater biofilter treatment model for faecal microorganisms. Science of the Total Environment, 2018, 630, 992-1002.	8.0	13
63	Assessment of sampling strategies for estimation of site mean concentrations of stormwater pollutants. Water Research, 2018, 129, 297-304.	11.3	28
64	Electrochemical inactivation of Cylindrospermopsis raciborskii and removal of the cyanotoxin cylindrospermopsin. Journal of Hazardous Materials, 2018, 344, 241-248.	12.4	20
65	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
66	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
67	Escherichia coli survival and transfer in estuarine bed sediments. River Research and Applications, 2018, 34, 606-614.	1.7	5
68	Predicting long term removal of heavy metals from porous pavements for stormwater treatment. Water Research, 2018, 142, 236-245.	11.3	35
69	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
70	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
71	Biofilters for urban agriculture: Metal uptake of vegetables irrigated with stormwater. Ecological Engineering, 2018, 122, 177-186.	3.6	22
72	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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73	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
74	Pesticide occurrence and spatio-temporal variability in urban run-off across Australia. Water Research, 2017, 115, 245-255.	11.3	90
75	Green walls for greywater reuse: Understanding the role of media on pollutant removal. Ecological Engineering, 2017, 102, 625-635.	3.6	95
76	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
77	Modelling transitions in urban water systems. Water Research, 2017, 126, 501-514.	11.3	52
78	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
79	Conceptual modelling of E. coli in urban stormwater drains, creeks and rivers. Journal of Hydrology, 2017, 555, 129-140.	5.4	6
80	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
81	Tidal fluctuations influence E. coli concentrations in urban estuaries. Marine Pollution Bulletin, 2017, 119, 226-230.	5.0	7
82	Source tracking using microbial community fingerprints: Method comparison with hydrodynamic modelling. Water Research, 2017, 109, 253-265.	11.3	56
83	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
84	Spatial variability of E. coli in an urban salt-wedge estuary. Marine Pollution Bulletin, 2017, 114, 114-122.	5.0	6
85	Stormwater Biofilters as Barriers against Campylobacter jejuni, Cryptosporidium Oocysts and Adenoviruses; Results from a Laboratory Trial. Water (Switzerland), 2017, 9, 949.	2.7	15
86	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
87	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
88	Constructing ultrathin film with â€œmemoryâ€•photocatalytic activity from monolayered tungstate nanodots. Chemical Communications, 2016, 52, 6985-6988.	4.1	15
89	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
90	Identifying heavy metal levels in historical flood water deposits using sediment cores. Water Research, 2016, 105, 34-46.	11.3	41

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91	Ultrathin titanium oxide nanosheets film with memory bactericidal activity. Nanoscale, 2016, 8, 18050-18056.	5.6	24
92	Using sediment cores to establish targets for the remediation of aquatic environments. Water Science and Technology, 2016, 73, 628-635.	2.5	4
93	Stormwater biofilters: A new validation modelling tool. Ecological Engineering, 2016, 87, 53-61.	3.6	10
94	Validation of stormwater biofilters using in-situ columns. Science of the Total Environment, 2016, 544, 48-55.	8.0	8
95	Highly recoverable TiO2â€“GO nanocomposites for stormwater disinfection. Water Research, 2016, 94, 363-370.	11.3	66
96	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
97	Sediment cores as archives of historical changes in floodplain lake hydrology. Science of the Total Environment, 2016, 544, 1008-1019.	8.0	18
98	Stormwater biofilter treatment model (MPiRe) for selected micro-pollutants. Water Research, 2016, 89, 180-191.	11.3	38
99	Into the deep: Evaluation of SourceTracker for assessment of faecal contamination of coastal waters. Water Research, 2016, 93, 242-253.	11.3	117
100	Evaluation of Techniques for Measuring Microbial Hazards in Bathing Waters: A Comparative Study. PLoS ONE, 2016, 11, e0155848.	2.5	27
101	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
102	Integrated conceptual modelling of faecal contamination in an urban estuary catchment. Water Science and Technology, 2015, 72, 1472-1480.	2.5	9
103	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
104	Human and environmental health risks and benefits associated with use of urban stormwater. Wiley Interdisciplinary Reviews: Water, 2015, 2, 683-699.	6.5	29
105	Methodologies for Pre-Validation of Biofilters and Wetlands for Stormwater Treatment. PLoS ONE, 2015, 10, e0125979.	2.5	9
106	Can we model the implementation of water sensitive urban design in evolving cities?. Water Science and Technology, 2015, 71, 149-156.	2.5	20
107	Assessment of the Impact of Stormwater Characteristics on Clogging in Stormwater Filters. Water Resources Management, 2015, 29, 1031-1048.	3.9	28
108	Surrogates for herbicide removal in stormwater biofilters. Water Research, 2015, 81, 64-71.	11.3	23

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109	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
110	Revisiting land use classification and spatial aggregation for modelling integrated urban water systems. Landscape and Urban Planning, 2015, 143, 43-55.	7.5	36
111	Stable copper-zeolite filter media for bacteria removal in stormwater. Journal of Hazardous Materials, 2014, 273, 222-230.	12.4	29
112	A critical review of integrated urban water modelling â€“ Urban drainage and beyond. Environmental Modelling and Software, 2014, 54, 88-107.	4.5	229
113	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
114	Impacts of measured data uncertainty on urban stormwater models. Journal of Hydrology, 2014, 508, 28-42.	5.4	35
115	E. coli removal in laboratory scale stormwater biofilters: Influence of vegetation and submerged zone. Journal of Hydrology, 2014, 519, 814-822.	5.4	73
116	Removal of E. coli from urban stormwater using antimicrobial-modified filter media. Journal of Hazardous Materials, 2014, 271, 73-81.	12.4	41
117	Assessment of Impact of Filter Design Variables on Clogging in Stormwater Filters. Water Resources Management, 2014, 28, 1873-1885.	3.9	37
118	Survival of Escherichia coli in stormwater biofilters. Environmental Science and Pollution Research, 2014, 21, 5391-5401.	5.3	24
119	Assessment of clogging phenomena in granular filter media used for stormwater treatment. Journal of Hydrology, 2014, 512, 518-527.	5.4	62
120	The validation of stormwater biofilters for micropollutant removal using in situ challenge tests. Ecological Engineering, 2014, 67, 1-10.	3.6	83
121	Heavy Metal Contamination of Vegetables Irrigated by Urban Stormwater: A Matter of Time?. PLoS ONE, 2014, 9, e112441.	2.5	38
122	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
123	Toxicity characterization of urban stormwater with bioanalytical tools. Water Research, 2013, 47, 5594-5606.	11.3	69
124	Predicting physical clogging of porous and permeable pavements. Journal of Hydrology, 2013, 481, 48-55.	5.4	118
125	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
126	Escherichia coli concentrations and loads in an urbanised catchment: The Yarra River, Australia. Journal of Hydrology, 2013, 497, 51-61.	5.4	29

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127	Evaluating Escherichia coli removal performance in stormwater biofilters: a preliminary modelling approach. Water Science and Technology, 2013, 67, 2467-2475.	2.5	14
128	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
129	Urban drainage models â€“ simplifying uncertainty analysis for practitioners. Water Science and Technology, 2013, 68, 2136-2143.	2.5	14
130	A planning algorithm for quantifying decentralised water management opportunities in urban environments. Water Science and Technology, 2013, 68, 1857-1865.	2.5	38
131	Modelling cities and water infrastructure dynamics. Proceedings of the Institution of Civil Engineers: Engineering Sustainability, 2013, 166, 301-308.	0.7	21
132	Performance of envissâ„¢ stormwater filters: results of a laboratory trial. Water Science and Technology, 2012, 66, 719-727.	2.5	15
133	Zinc-sulphate-heptahydrate coated activated carbon for microbe removal from stormwater. Water Science and Technology, 2012, 66, 1582-1589.	2.5	7
134	Evaluating Escherichia coli removal performance in stormwater biofilters: a laboratory-scale study. Water Science and Technology, 2012, 66, 1132-1138.	2.5	48
135	Intra-event variability of Escherichia coli and total suspended solids in urban stormwater runoff. Water Research, 2012, 46, 6661-6670.	11.3	134
136	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
137	Comparison of different uncertainty techniques in urban stormwater quantity and quality modelling. Water Research, 2012, 46, 2545-2558.	11.3	153
138	Removal of Clostridium perfringens, Escherichia coli and F-RNA coliphages by stormwater biofilters. Ecological Engineering, 2012, 49, 137-145.	3.6	75
139	Development and testing of a model for Micro-Organism Prediction in Urban Stormwater (MOPUS). Journal of Hydrology, 2011, 409, 236-247.	5.4	23
140	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
141	Sensitivity analysis of an urban stormwater microorganism model. Water Science and Technology, 2010, 62, 1393-1400.	2.5	6
142	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
143	Stormwater quality models: performance and sensitivity analysis. Water Science and Technology, 2010, 62, 837-843.	2.5	36
144	Redefining the stormwater first flush phenomenon. Water Research, 2010, 44, 2487-2498.	11.3	115

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145	Urban stormwater harvesting â€“ sensitivity of a storage behaviour model. Environmental Modelling and Software, 2008, 23, 782-793.	4.5	78
146	Uncertainties in stormwater E. coli levels. Water Research, 2008, 42, 1812-1824.	11.3	85
147	Achieving multiple benefits from stormwater harvesting. Water Science and Technology, 2007, 55, 135-144.	2.5	128
148	Escherichia coli in urban stormwater: explaining their variability. Water Science and Technology, 2007, 56, 27-34.	2.5	65