Jes Vollertsen

List of Publications by Citations

115 papers	3,273 citations	29 h-index	54 g-index
117 ext. papers	4,171 ext. citations	5.2 avg, IF	5.97 L-index

#	Paper	IF	Citations
115	The activated sludge ecosystem contains a core community of abundant organisms. *ISME Journal*, **2016**, 10, 11-20	11.9	306
114	Quantification of microplastic mass and removal rates at wastewater treatment plants applying Focal Plane Array (FPA)-based Fourier Transform Infrared (FT-IR) imaging. *Water Research*, **2018**, 142, 1-9	12.5	292
113	Simulating human exposure to indoor airborne microplastics using a Breathing Thermal Manikin. *Scientific Reports*, **2019**, 9, 8670	4.9	205
112	A conceptual ecosystem model of microbial communities in enhanced biological phosphorus removal plants. *Water Research*, **2010**, 44, 5070-88	12.5	204
111	Microplastics in urban and highway stormwater retention ponds. *Science of the Total Environment*, **2019**, 671, 992-1000	10.2	163
110	Sulfide-iron interactions in domestic wastewater from a gravity sewer. *Water Research*, **2005**, 39, 2747-55	12.5	120
109	Corrosion of concrete sewers--the kinetics of hydrogen sulfide oxidation. *Science of the Total Environment*, **2008**, 394, 162-70	10.2	113
108	Biocides in urban wastewater treatment plant influent at dry and wet weather: concentrations, mass flows and possible sources. *Water Research*, **2014**, 60, 64-74	12.5	84
107	Dynamics of biocide emissions from buildings in a suburban stormwater catchment - concentrations, mass loads and emission processes. *Water Research*, **2014**, 56, 66-76	12.5	79
106	Towards a better understanding of sewer exfiltration. *Water Research*, **2008**, 42, 2385-94	12.5	70
105	Kinetics and stoichiometry of sulfide oxidation by sewer biofilms. *Water Research*, **2005**, 39, 4119-25	12.5	69
104	Determination of kinetics and stoichiometry of chemical sulfide oxidation in wastewater of sewer networks. *Environmental Science & Technology*, **2003**, 37, 3853-8	10.3	67
103	Sewer Processes		64
102	Influence of pipe material and surfaces on sulfide related odor and corrosion in sewers. *Water Research*, **2008**, 42, 4206-14	12.5	63
101	Toward the Systematic Identification of Microplastics in the Environment: Evaluation of a New Independent Software Tool (siMPle) for Spectroscopic Analysis. *Applied Spectroscopy*, **2020**, 74, 1127-1138	3.1	62
100	Drinking plastics? - Quantification and qualification of microplastics in drinking water distribution systems by μFTIR and Py-GCMS. *Water Research*, **2021**, 188, 116519	12.5	55
99	Retention of microplastics in sediments of urban and highway stormwater retention ponds. *Environmental Pollution*, **2019**, 255, 113335	9.3	53

98	Kinetics and stoichiometry of aerobic sulfide oxidation in wastewater from sewers-effects of pH and temperature. *Water Environment Research*, **2006**, 78, 275-83	2.8	52
97	Effect of Temperature on Air-Water Transfer of Hydrogen Sulfide. *Journal of Environmental Engineering, ASCE*, **2004**, 130, 104-109	2	49
96	Comparison of methods for determination of microbial biomass in wastewater. *Water Research*, **2001**, 35, 1649-58	12.5	42
95	Microplastics in a Stormwater Pond. *Water (Switzerland)*, **2019**, 11, 1466	3	41
94	Influence of Wastewater Constituents on Hydrogen Sulfide Emission in Sewer Networks. *Journal of Environmental Engineering, ASCE*, **2005**, 131, 1676-1683	2	35
93	Urban and Highway Stormwater Pollution		35
92	Identification and Quantification of Microplastics in Potable Water and Their Sources within Water Treatment Works in England and Wales. *Environmental Science & Technology*, **2020**, 54, 12326-12334	10.3	34
91	Leaching of Terbutryn and Its Photodegradation Products from Artificial Walls under Natural Weather Conditions. *Environmental Science & Technology*, **2016**, 50, 4289-95	10.3	33
90	Effects of pH and iron concentrations on sulfide precipitation in wastewater collection systems. *Water Environment Research*, **2008**, 80, 380-4	2.8	32
89	Removal of >10 μm Microplastic Particles from Treated Wastewater by a Disc Filter. *Water (Switzerland)*, **2019**, 11, 1935	3	31
88	Degradation of PPCPs in activated sludge from different WWTPs in Denmark. *Ecotoxicology*, **2015**, 24, 2073-80	2.9	30
87	Modeling of hydrogen sulfide oxidation in concrete corrosion products from sewer pipes. *Water Environment Research*, **2009**, 81, 365-73	2.8	30
86	Growth kinetics of hydrogen sulfide oxidizing bacteria in corroded concrete from sewers. *Journal of Hazardous Materials*, **2011**, 189, 685-91	12.8	29
85	Air-water transfer of hydrogen sulfide: an approach for application in sewer networks. *Water Environment Research*, **2004**, 76, 81-8	2.8	27
84	Aerobic and anaerobic transformations of sulfide in a sewer system--field study and model simulations. *Water Environment Research*, **2008**, 80, 16-25	2.8	26
83	Improved urban stormwater treatment and pollutant removal pathways in amended wet detention ponds. *Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering*, **2012**, 47, 1466-77	2.3	25
82	Exploratory analysis of hyperspectral FTIR data obtained from environmental microplastics samples. *Analytical Methods*, **2020**, 12, 781-791	3.2	24
81	Stoichiometric and kinetic model parameters for microbial transformations of suspended solids in combined sewer systems. *Water Research*, **1999**, 33, 3127-3141	12.5	23

80	Assessment of input of organic micropollutants and microplastics into the Baltic Sea by urban waters. *Marine Pollution Bulletin*, **2019**, 148, 149-155	6.7	22
79	Biodegradability of organic matter associated with sewer sediments during first flush. *Science of the Total Environment*, **2009**, 407, 2989-95	10.2	22
78	Monitoring and modelling the performance of a wet pond for treatment of highway runoff in cold climates. *Alliance for Global Sustainability Bookseries*, **2007**, 499-509		22
77	Semi-automated analysis of microplastics in complex wastewater samples. *Environmental Pollution*, **2021**, 268, 115841	9.3	21
76	Photodegradation of octylisothiazolinone and semi-field emissions from facade coatings. *Scientific Reports*, **2017**, 7, 41501	4.9	20
75	Microplastics Removal from Treated Wastewater by a Biofilter. *Water (Switzerland)*, **2020**, 12, 1085	3	20
74	Sorption media for stormwater treatment--a laboratory evaluation of five low-cost media for their ability to remove metals and phosphorus from artificial stormwater. *Water Environment Research*, **2012**, 84, 605-16	2.8	19
73	Quantification of plankton-sized microplastics in a productive coastal Arctic marine ecosystem. *Environmental Pollution*, **2020**, 266, 115248	9.3	19
72	Distribution of metals in fauna, flora and sediments of wet detention ponds and natural shallow lakes. *Ecological Engineering*, **2014**, 66, 43-51	3.9	18
71	Heavy metals, PAHs and toxicity in stormwater wet detention ponds. *Water Science and Technology*, **2011**, 64, 503-11	2.2	18
70	Effect of sewer headspace air-flow on hydrogen sulfide removal by corroding concrete surfaces. *Water Environment Research*, **2012**, 84, 265-73	2.8	18
69	A nationwide assessment of plastic pollution in the Danish realm using citizen science. *Scientific Reports*, **2020**, 10, 17773	4.9	17
68	Invertebrates in stormwater wet detention ponds - Sediment accumulation and bioaccumulation of heavy metals have no effect on biodiversity and community structure. *Science of the Total Environment*, **2016**, 566-567, 1579-1587	10.2	15
67	Modeling Sulfides, pH and Hydrogen Sulfide Gas in the Sewers of San Francisco. *Water Environment Research*, **2015**, 87, 1980-9	2.8	15
66	Effects of temperature and dissolved oxygen on hydrolysis of sewer solids. *Water Research*, **1999**, 33, 3119-3126	12.5	15
65	Gas phase transport in gravity sewers--A methodology for determination of horizontal gas transport and ventilation. *Water Environment Research*, **2006**, 78, 2203-9	2.8	14
64	Sorption and Degradation Potential of Pharmaceuticals in Sediments from a Stormwater Retention Pond. *Water (Switzerland)*, **2019**, 11, 526	3	13
63	Sulfide Precipitation in Wastewater at Short Timescales. *Water (Switzerland)*, **2017**, 9, 670	3	13

62	Resuspension and oxygen uptake of sediments in combined sewers. *Urban Water*, **2000**, 2, 21-27		13
61	Aerobic microbial transformations of resuspended sediments in combined sewers - a conceptual model. *Water Science and Technology*, **1998**, 37, 69-76	2.2	13
60	A sewer process model as planning and management tool--hydrogen sulfide simulation at catchment scale. *Water Science and Technology*, **2011**, 64, 348-54	2.2	12
59	Anaerobic transformations of organic matter in collection systems. *Water Environment Research*, **2011**, 83, 532-40	2.8	12
58	Effects of Iron on Chemical Sulfide Oxidation in Wastewater from Sewer Networks. *Journal of Environmental Engineering, ASCE*, **2007**, 133, 655-658	2	12
57	Photodegradation of three stormwater biocides. *Urban Water Journal*, **2017**, 14, 53-60	2.3	11
56	Sewer exfiltration and the colmation layer. *Water Science and Technology*, **2009**, 59, 2273-80	2.2	11
55	A complete mass balance for plastics in a wastewater treatment plant - Macroplastics contributes more than microplastics. *Water Research*, **2021**, 201, 117307	12.5	11
54	Bioaccumulation of heavy metals in two wet retention ponds. *Urban Water Journal*, **2016**, 13, 697-709	2.3	10
53	Modeling the eutrophication of two mature planted stormwater ponds for runoff control. *Ecological Engineering*, **2013**, 61, 601-613	3.9	10
52	Effects of aerobic□anaerobic transient conditions on sulfur and metal cycles in sewer biofilms. *Biofilms*, **2005**, 2, 81-91		10
51	Kinetics of sulfide precipitation with ferrous and ferric iron in wastewater. *Water Science and Technology*, **2018**, 78, 1071-1081	2.2	9
50	Release of hydrogen sulfide in a sewer system under intermittent flow conditions: the Eiceira case study, in Portugal. *Water Science and Technology*, **2017**, 75, 1702-1711	2.2	8
49	Survival of hydrogen sulfide oxidizing bacteria on corroded concrete surfaces of sewer systems. *Water Science and Technology*, **2008**, 57, 1721-6	2.2	8
48	Modeling the formation and fate of odorous substances in collection systems. *Water Environment Research*, **2008**, 80, 118-26	2.8	8
47	Aerobic microbial transformations of pipe and silt trap sediments from combined sewers. *Water Science and Technology*, **1998**, 38, 249-256	2.2	8
46	Performance and Modelling of a Highway Wet Detention Pond Designed for Cold Climate. *Water Quality Research Journal of Canada*, **2009**, 44, 253-262	1.7	8
45	Aerobic and Anaerobic Transformations of Sulfide in a Sewer System □Field Study and Model Simulations. *Proceedings of the Water Environment Federation*, **2006**, 2006, 3654-3670		7

44	Accelerated weathering affects the chemical and physical properties of marine antifouling paint microplastics and their identification by ATR-FTIR spectroscopy. *Chemosphere*, **2021**, 274, 129749	8.4	7
43	Experimental Evaluation of the Stoichiometry of Sulfide-Related Concrete Sewer Corrosion. *Journal of Environmental Engineering, ASCE*, **2014**, 140, 04013009	2	6
42	Release of hydrogen sulfide under intermittent flow conditions - the potential of simulation models. *Water Science and Technology*, **2018**, 77, 777-787	2.2	6
41	Accelerated Weathering Increases the Release of Toxic Leachates from Microplastic Particles as Demonstrated through Altered Toxicity to the Green Algae. *Toxics*, **2021**, 9,	4.7	6
40	Monitoring the startup of a wet detention pond equipped with sand filters and sorption filters. *Water Science and Technology*, **2009**, 60, 1071-9	2.2	5
39	Hydrogen sulphide removal from corroding concrete: comparison between surface removal rates and biomass activity. *Environmental Technology (United Kingdom)*, **2009**, 30, 1291-6	2.6	5
38	Aerobic microbial transformations of pipe and silt trap sediments from combined sewers. *Water Science and Technology*, **1999**, 39, 233-249	2.2	5
37	Microplastic pollution in drinking water. *Current Opinion in Toxicology*, **2021**, 28, 70-70	4.4	5
36	The occurrence and fate of microplastics in a mesophilic anaerobic digester receiving sewage sludge, grease, and fatty slurries. *Science of the Total Environment*, **2021**, 798, 149287	10.2	5
35	Kinetics of aerobic oxidation of volatile sulfur compounds in wastewater and biofilm from sewers. *Water Science and Technology*, **2013**, 68, 2330-6	2.2	4
34	Stochastic Modeling of Chemical Oxygen Demand Transformations in Gravity Sewers. *Water Environment Research*, **2005**, 77, 331-339	2.8	4
33	Stochastic modeling of chemical oxygen demand transformations in gravity sewers. *Water Environment Research*, **2005**, 77, 331-9	2.8	4
32	Liquid-gas mass transfer at drop structures. *Water Science and Technology*, **2017**, 75, 2257-2267	2.2	3
31	Airflow in Gravity Sewers - Determination of Wastewater Drag Coefficient. *Water Environment Research*, **2016**, 88, 239-56	2.8	3
30	Spatial Variability of Anaerobic Processes and Wastewater pH in Force Mains. *Water Environment Research*, **2016**, 88, 747-55	2.8	3
29	Variations in microbiome composition of sewer biofilms due to ferrous and ferric iron dosing. *Cogent Environmental Science*, **2019**, 5, 1595293	1.6	2
28	An exploratory study of benthic diatom communities in stormwater ponds of different land uses and varying biocide contamination. *Aquatic Ecology*, **2020**, 54, 761-774	1.9	2
27	Liquid-Gas Mass Transfer of Volatile Substances in an Energy Dissipating Structure. *Water Environment Research*, **2018**, 90, 269-277	2.8	2

26	Modeling anaerobic organic matter transformations in the wastewater phase of sewer networks. *Water Science and Technology*, **2012**, 66, 1728-34	2.2	2
25	New Findings in Hydrogen Sulfide Related Corrosion of Concrete Sewers **2009**,		2
24	Air-water mass transfer and tracer gases in stormwater systems. *Water Science and Technology*, **2007**, 56, 267-75	2.2	2
23	Sewer quality modeling a dry weather approach. *Urban Water*, **2000**, 2, 295-303		2
22	Model Parameters for Aerobic Biological Sulfide Oxidation in Sewer Wastewater. *Water (Switzerland)*, **2021**, 13, 981	3	2
21	Automated monitoring system for events detection in sewer network by distribution temperature sensing data measurement. *Water Science and Technology*, **2018**, 78, 1499-1508	2.2	2
20	Variations in activities of sewer biofilms due to ferrous and ferric iron dosing. *Water Science and Technology*, **2018**, 2017, 845-858	2.2	2
19	Planktonic algae abundance and diversity are similar in urban stormwater ponds of different geographic locations and natural shallow lakes. *Urban Ecosystems*, **2020**, 23, 841-850	2.8	1
18	Modeling Odors and Hydrogen Sulfide in the Sewers of San Francisco. *Proceedings of the Water Environment Federation*, **2014**, 2014, 1-11		1
17	Air Flow in Gravity Sewers Determination of Wastewater Drag Coefficient. *Proceedings of the Water Environment Federation*, **2014**, 2014, 1-29		1
16	A method for on-line measurement of wastewater organic substrate oxidation level during aerobic heterotrophic respiration. *Water Science and Technology*, **2013**, 67, 1809-15	2.2	1
15	Bioaccumulation of heavy metals in fauna from wet detention ponds for stormwater runoff. *Alliance for Global Sustainability Bookseries*, **2012**, 329-338		1
14	Anaerobic Transformations of Wastewater Organic Matter in Sewer Systems. *Proceedings of the Water Environment Federation*, **2009**, 2009, 501-513		1
13	Microplastics degradation through hydrothermal liquefaction of wastewater treatment sludge. *Journal of Cleaner Production*, **2022**, 335, 130383	10.3	1
12	Seasonal Trends in Bioaccumulation of Heavy Metals in Fauna of Stormwater Ponds **2013**, 485-494		1
11	Retainment of the antimicrobial agent triclosan in a septic tank. *Water Science and Technology*, **2014**, 70, 586-92	2.2	0
10	Modeling nutrient and pollutant removal in three wet detention ponds. *Alliance for Global Sustainability Bookseries*, **2012**, 237-248		0
9	Modeling the Formation and Fate of Odorous Substances in Collection Systems. *Proceedings of the Water Environment Federation*, **2006**, 2006, 1097-1112		

8	Discussion of "Modeling Hydrogen Sulfide Emission Rates in Gravity Sewage Collection Systems" by Ori Lahav, Yue Lu, Uri Shavit, and Richard E. Loewenthal. *Journal of Environmental Engineering, ASCE*, **2005**, 131, 1761-1762	2
7	Effects of Diurnal pH Variation in Sewer Process Modeling. *Proceedings of the Water Environment Federation*, **2018**, 2018, 288-297	
6	WATS Sewer Process Model as a tool for Construction Projects Alternative Selection. *Proceedings of the Water Environment Federation*, **2018**, 2018, 591-605	
5	Using WATS Sewer Process Model for Project Pre-Design. *Proceedings of the Water Environment Federation*, **2018**, 2018, 107-122	
4	A Conceptual Sewer Process Model as a Tool for Odor and Corrosion Management. *Proceedings of the Water Environment Federation*, **2016**, 2016, 596-609	
3	Spatial and Temporal Heterogeneity of Surface pH in Corroding Concrete Sewers. *Proceedings of the Water Environment Federation*, **2017**, 2017, 5482-5491	
2	No Clear Response in the Stormwater Phytoplankton Community to Biocide Contamination. *Water (Switzerland)*, **2020**, 12, 3120	3
1	Apparent diffusion coefficients in sewer force main biofilms treated with iron salts. *Environmental Science: Water Research and Technology*, **2018**, 4, 1501-1510	4.2