Jes Vollertsen

List of Publications by Year
in descending order

114 papers	5,157 citations	117453 34 h-index	95083 68 g-index
117 all docs	117 docs citations	117 times ranked	4566 citing authors

#	Article	IF	Citations
1	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.	5.3	518
2	The activated sludge ecosystem contains a core community of abundant organisms. ISME Journal, 2016, 10, 11-20.	4.4	416
3	Simulating human exposure to indoor airborne microplastics using a Breathing Thermal Manikin. Scientific Reports, 2019, 9, 8670.	1.6	407
4	Microplastics in urban and highway stormwater retention ponds. Science of the Total Environment, 2019, 671, 992-1000.	3.9	286
5	A conceptual ecosystem model of microbial communities in enhanced biological phosphorus removal plants. Water Research, 2010, 44, 5070-5088.	5.3	257
6	Drinking plastics? â€“ Quantification and qualification of microplastics in drinking water distribution systems by ÂµFTIR and Py-GCMS. Water Research, 2021, 188, 116519.	5.3	151
7	Corrosion of concrete sewersâ€”The kinetics of hydrogen sulfide oxidation. Science of the Total Environment, 2008, 394, 162-170.	3.9	149
8	Sulfideâ€“iron interactions in domestic wastewater from a gravity sewer. Water Research, 2005, 39, 2747-2755.	5.3	143
9	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.	1.2	130
10	Retention of microplastics in sediments of urban and highway stormwater retention ponds. Environmental Pollution, 2019, 255, 113335.	3.7	112
11	Biocides in urban wastewater treatment plant influent at dry and wet weather: Concentrations, mass flows and possible sources. Water Research, 2014, 60, 64-74.	5.3	97
12	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.	4.6	97
13	Dynamics of biocide emissions from buildings in a suburban stormwater catchment â€“ Concentrations, mass loads and emission processes. Water Research, 2014, 56, 66-76.	5.3	96
14	Kinetics and stoichiometry of sulfide oxidation by sewer biofilms. Water Research, 2005, 39, 4119-4125.	5.3	89
15	Microplastics in a Stormwater Pond. Water (Switzerland), 2019, 11, 1466.	1.2	88
16	Sewer Processes. , 0, , .		87
17	Towards a better understanding of sewer exfiltration. Water Research, 2008, 42, 2385-2394.	5.3	83
18	Determination of Kinetics and Stoichiometry of Chemical Sulfide Oxidation in Wastewater of Sewer Networks. Environmental Science & Technology, 2003, 37, 3853-3858.	4.6	79

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19	Influence of pipe material and surfaces on sulfide related odor and corrosion in sewers. Water Research, 2008, 42, 4206-4214.	5.3	79
20	Kinetics and Stoichiometry of Aerobic Sulfide Oxidation in Wastewater from Sewers-Effects of pH and Temperature. Water Environment Research, 2006, 78, 275-283.	1.3	75
21	Semi-automated analysis of microplastics in complex wastewater samples. Environmental Pollution, 2021, 268, 115841.	3.7	72
22	Effect of Temperature on Air-Water Transfer of Hydrogen Sulfide. Journal of Environmental Engineering, ASCE, 2004, 130, 104-109.	0.7	61
23	Removal of >10 Âµm Microplastic Particles from Treated Wastewater by a Disc Filter. Water (Switzerland), 2019, 11, 1935.	1.2	60
24	Quantification of plankton-sized microplastics in a productive coastal Arctic marine ecosystem. Environmental Pollution, 2020, 266, 115248.	3.7	52
25	Comparison of methods for determination of microbial biomass in wastewater. Water Research, 2001, 35, 1649-1658.	5.3	49
26	Effects of pH and Iron Concentrations on Sulfide Precipitation in Wastewater Collection Systems. Water Environment Research, 2008, 80, 380-384.	1.3	49
27	Influence of Wastewater Constituents on Hydrogen Sulfide Emission in Sewer Networks. Journal of Environmental Engineering, ASCE, 2005, 131, 1676-1683.	0.7	48
28	Microplastics Removal from Treated Wastewater by a Biofilter. Water (Switzerland), 2020, 12, 1085.	1.2	48
29	A complete mass balance for plastics in a wastewater treatment plant - Macroplastics contributes more than microplastics. Water Research, 2021, 201, 117307.	5.3	47
30	Leaching of Terbutryn and Its Photodegradation Products from Artificial Walls under Natural Weather Conditions. Environmental Science & Technology, 2016, 50, 4289-4295.	4.6	46
31	Assessment of input of organic micropollutants and microplastics into the Baltic Sea by urban waters. Marine Pollution Bulletin, 2019, 148, 149-155.	2.3	45
32	Microplastic pollution in drinking water. Current Opinion in Toxicology, 2021, 28, 70-75.	2.6	44
33	A nationwide assessment of plastic pollution in the Danish realm using citizen science. Scientific Reports, 2020, 10, 17773.	1.6	41
34	Growth kinetics of hydrogen sulfide oxidizing bacteria in corroded concrete from sewers. Journal of Hazardous Materials, 2011, 189, 685-691.	6.5	40
35	Degradation of PPCPs in activated sludge from different WWTPs in Denmark. Ecotoxicology, 2015, 24, 2073-2080.	1.1	40
36	Modeling of Hydrogen Sulfide Oxidation in Concrete Corrosion Products from Sewer Pipes. Water Environment Research, 2009, 81, 365-373.	1.3	38

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37	Exploratory analysis of hyperspectral FTIR data obtained from environmental microplastics samples. Analytical Methods, 2020, 12, 781-791.	1.3	38
38	Air-Water Transfer of Hydrogen Sulfide: An Approach for Application in Sewer Networks. Water Environment Research, 2004, 76, 81-88.	1.3	36
39	Aerobic and Anaerobic Transformations of Sulfide in a Sewer Systemâ€"Field Study and Model Simulations. Water Environment Research, 2008, 80, 16-25.	1.3	36
40	Photodegradation of octylisothiazolinone and semi-field emissions from facade coatings. Scientific Reports, 2017, 7, 41501.	1.6	31
41	Microplastics degradation through hydrothermal liquefaction of wastewater treatment sludge. Journal of Cleaner Production, 2022, 335, 130383.	4.6	31
42	Stoichiometric and kinetic model parameters for microbial transformations of suspended solids in combined sewer systems. Water Research, 1999, 33, 3127-3141.	5.3	30
43	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, 1466-1477.	0.9	30
44	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.	0.2	27
45	Biodegradability of organic matter associated with sewer sediments during first flush. Science of the Total Environment, 2009, 407, 2989-2995.	3.9	26
46	Distribution of metals in fauna, flora and sediments of wet detention ponds and natural shallow lakes. Ecological Engineering, 2014, 66, 43-51.	1.6	24
47	Sorption Media for Stormwater Treatmentâ€"A Laboratory Evaluation of Five Lowâ€Cost Media for Their Ability to Remove Metals and Phosphorus from Artificial Stormwater. Water Environment Research, 2012, 84, 605-616.	1.3	23
48	Resuspension and oxygen uptake of sediments in combined sewers. Urban Water, 2000, 2, 21-27.	0.5	22
49	Effect of Sewer Headspace Air-Flow on Hydrogen Sulfide Removal by Corroding Concrete Surfaces. Water Environment Research, 2012, 84, 265-273.	1.3	21
50	Sorption and Degradation Potential of Pharmaceuticals in Sediments from a Stormwater Retention Pond. Water (Switzerland), 2019, 11, 526.	1.2	20
51	Gas Phase Transport in Gravity Sewers-A Methodology for Determination of Horizontal Gas Transport and Ventilation. Water Environment Research, 2006, 78, 2203-2209.	1.3	19
52	Modeling Sulfides, pH and Hydrogen Sulfide Gas in the Sewers of San Francisco. Water Environment Research, 2015, 87, 1980-1989.	1.3	19
53	Accelerated weathering affects the chemical and physical properties of marine antifouling paint microplastics and their identification by ATR-FTIR spectroscopy. Chemosphere, 2021, 274, 129749.	4.2	19
54	Effects of temperature and dissolved oxygen on hydrolysis of sewer solids. Water Research, 1999, 33, 3119-3126.	5.3	18

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55	Heavy metals, PAHs and toxicity in stormwater wet detention ponds. Water Science and Technology, 2011, 64, 503-511.	1.2	18
56	Invertebrates in stormwater wet detention ponds â€" 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.	3.9	18
57	Accelerated Weathering Increases the Release of Toxic Leachates from Microplastic Particles as Demonstrated through Altered Toxicity to the Green Algae Raphidocelis subcapitata. Toxics, 2021, 9, 185.	1.6	18
58	Anaerobic Transformations of Organic Matter in Collection Systems. Water Environment Research, 2011, 83, 532-540.	1.3	17
59	Sulfide Precipitation in Wastewater at Short Timescales. Water (Switzerland), 2017, 9, 670.	1.2	17
60	Sewer exfiltration and the colmation layer. Water Science and Technology, 2009, 59, 2273-2280.	1.2	15
61	Effects of Iron on Chemical Sulfide Oxidation in Wastewater from Sewer Networks. Journal of Environmental Engineering, ASCE, 2007, 133, 655-658.	0.7	14
62	Survival of hydrogen sulfide oxidizing bacteria on corroded concrete surfaces of sewer systems. Water Science and Technology, 2008, 57, 1721-1726.	1.2	14
63	A sewer process model as planning and management tool â€" hydrogen sulfide simulation at catchment scale. Water Science and Technology, 2011, 64, 348-354.	1.2	14
64	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.	3.9	14
65	Aerobic microbial transformations of resuspended sediments in combined sewers - a conceptual model. Water Science and Technology, 1998, 37, 69-76.	1.2	14
66	Effects of aerobicâ€"anaerobic transient conditions on sulfur and metal cycles in sewer biofilms. Biofilms, 2005, 2, 81-91.	0.6	13
67	Bioaccumulation of heavy metals in two wet retention ponds. Urban Water Journal, 2016, 13, 697-709.	1.0	13
68	Kinetics of sulfide precipitation with ferrous and ferric iron in wastewater. Water Science and Technology, 2018, 78, 1071-1081.	1.2	13
69	Photodegradation of three stormwater biocides. Urban Water Journal, 2017, 14, 53-60.	1.0	12
70	Modeling the eutrophication of two mature planted stormwater ponds for runoff control. Ecological Engineering, 2013, 61, 601-613.	1.6	11
71	Hydrogen sulphide removal from corroding concrete: Comparison between surface removal rates and biomass activity. Environmental Technology (United Kingdom), 2009, 30, 1291-1296.	1.2	10
72	Release of hydrogen sulfide in a sewer system under intermittent flow conditions: the Ericeira case study, in Portugal. Water Science and Technology, 2017, 75, 1702-1711.	1.2	10

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73	Performance and Modelling of a Highway Wet Detention Pond Designed for Cold Climate. Water Quality Research Journal of Canada, 2009, 44, 253-262.	1.2	10
74	Aerobic microbial transformations of pipe and silt trap sediments from combined sewers. Water Science and Technology, 1998, 38, 249-256.	1.2	8
75	Modeling the Formation and Fate of Odorous Substances in Collection Systems. Water Environment Research, 2008, 80, 118-126.	1.3	8
76	Experimental Evaluation of the Stoichiometry of Sulfide-Related Concrete Sewer Corrosion. Journal of Environmental Engineering, ASCE, 2014, 140, 04013009.	0.7	8
77	Release of hydrogen sulfide under intermittent flow conditions â€“ the potential of simulation models. Water Science and Technology, 2018, 77, 777-787.	1.2	8
78	Aerobic and Anaerobic Transformations of Sulfide in a Sewer System â€“ Field Study and Model Simulations. Proceedings of the Water Environment Federation, 2006, 2006, 3654-3670.	0.0	7
79	Monitoring the startup of a wet detention pond equipped with sand filters and sorption filters. Water Science and Technology, 2009, 60, 1071-1079.	1.2	7
80	An exploratory study of benthic diatom communities in stormwater ponds of different land uses and varying biocide contamination. Aquatic Ecology, 2020, 54, 761-774.	0.7	7
81	Sewer quality modeling â€“ a dry weather approach. Urban Water, 2000, 2, 295-303.	0.5	6
82	Stochastic Modeling of Chemical Oxygen Demand Transformations in Gravity Sewers. Water Environment Research, 2005, 77, 331-339.	1.3	6
83	Automated monitoring system for events detection in sewer network by distribution temperature sensing data measurement. Water Science and Technology, 2018, 78, 1499-1508.	1.2	6
84	Model Parameters for Aerobic Biological Sulfide Oxidation in Sewer Wastewater. Water (Switzerland), 2021, 13, 981.	1.2	6
85	Aerobic microbial transformations of pipe and silt trap sediments from combined sewers. Water Science and Technology, 1999, 39, 233-249.	1.2	6
86	Modeling anaerobic organic matter transformations in the wastewater phase of sewer networks. Water Science and Technology, 2012, 66, 1728-1734.	1.2	5
87	Variations in activities of sewer biofilms due to ferrous and ferric iron dosing. Water Science and Technology, 2018, 2017, 845-858.	1.2	5
88	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.	1.1	5
89	Kinetics of aerobic oxidation of volatile sulfur compounds in wastewater and biofilm from sewers. Water Science and Technology, 2013, 68, 2330-2336.	1.2	4
90	Spatial Variability of Anaerobic Processes and Wastewater pH in Force Mains. Water Environment Research, 2016, 88, 747-755.	1.3	4

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91	Liquid-gas mass transfer at drop structures. Water Science and Technology, 2017, 75, 2257-2267.	1.2	4
92	Liquidâ€Gas Mass Transfer of Volatile Substances in an Energy Dissipating Structure. Water Environment Research, 2018, 90, 269-277.	1.3	4
93	Variations in microbiome composition of sewer biofilms due to ferrous and ferric iron dosing. Cogent Environmental Science, 2019, 5, 1595293.	1.6	4
94	Stochastic Modeling of Chemical Oxygen Demand Transformations in Gravity Sewers. Water Environment Research, 2005, 77, 331-339.	1.3	4
95	Airâ€“water mass transfer and tracer gases in stormwater systems. Water Science and Technology, 2007, 56, 267-275.	1.2	3
96	Air Flow in Gravity Sewers â€“ Determination of Wastewater Drag Coefficient. Proceedings of the Water Environment Federation, 2014, 2014, 1-29.	0.0	3
97	Airflow in Gravity Sewers â€“ Determination of Wastewater Drag Coefficient. Water Environment Research, 2016, 88, 239-256.	1.3	3
98	Innovative aspects of environmental chemistry and technology regarding air, water, and soil pollution. Environmental Science and Pollution Research, 2021, 28, 58958-58968.	2.7	3
99	New Findings in Hydrogen Sulfide Related Corrosion of Concrete Sewers. , 2009, , .		2
100	Retainment of the antimicrobial agent triclosan in a septic tank. Water Science and Technology, 2014, 70, 586-592.	1.2	2
101	Modeling the Formation and Fate of Odorous Substances in Collection Systems. Proceedings of the Water Environment Federation, 2006, 2006, 1097-1112.	0.0	1
102	Anaerobic Transformations of Wastewater Organic Matter in Sewer Systems. Proceedings of the Water Environment Federation, 2009, 2009, 501-513.	0.0	1
103	A method for on-line measurement of wastewater organic substrate oxidation level during aerobic heterotrophic respiration. Water Science and Technology, 2013, 67, 1809-1815.	1.2	1
104	Modeling Odors and Hydrogen Sulfide in the Sewers of San Francisco. Proceedings of the Water Environment Federation, 2014, 2014, 1-11.	0.0	1
105	Seasonal Trends in Bioaccumulation of Heavy Metals in Fauna of Stormwater Ponds. , 2013, , 485-494.		1
106	Modeling nutrient and pollutant removal in three wet detention ponds. Alliance for Global Sustainability Bookseries, 2012, , 237-248.	0.2	1
107	Discussion of â€œModeling Hydrogen Sulfide Emission Rates in Gravity Sewage Collection Systemsâ€•by Ori Lahav, Yue Lu, Uri Shavit, and Richard E. Loewenthal. Journal of Environmental Engineering, ASCE, 2005, 131, 1761-1762.	0.7	0
108	Apparent diffusion coefficients in sewer force main biofilms treated with iron salts. Environmental Science: Water Research and Technology, 2018, 4, 1501-1510.	1.2	0

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109	No Clear Response in the Stormwater Phytoplankton Community to Biocide Contamination. Water (Switzerland), 2020, 12, 3120.	1.2	0
110	A Conceptual Sewer Process Model as a Tool for Odor and Corrosion Management. Proceedings of the Water Environment Federation, 2016, 2016, 596-609.	0.0	0
111	Spatial and Temporal Heterogeneity of Surface pH in Corroding Concrete Sewers. Proceedings of the Water Environment Federation, 2017, 2017, 5482-5491.	0.0	0
112	Effects of Diurnal pH Variation in Sewer Process Modeling. Proceedings of the Water Environment Federation, 2018, 2018, 288-297.	0.0	0
113	WATS Sewer Process Model as a tool for Construction Projects Alternative Selection. Proceedings of the Water Environment Federation, 2018, 2018, 591-605.	0.0	0
114	Using WATS Sewer Process Model for Project Pre-Design. Proceedings of the Water Environment Federation, 2018, 2018, 107-122.	0.0	0