

Jes Vollertsen

List of Publications by Year in descending order

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114
papers

5,157
citations

117625

34
h-index

95266

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. <i>Water Research</i> , 2018, 142, 1-9.	11.3	518
2	The activated sludge ecosystem contains a core community of abundant organisms. <i>ISME Journal</i> , 2016, 10, 11-20.	9.8	416
3	Simulating human exposure to indoor airborne microplastics using a Breathing Thermal Manikin. <i>Scientific Reports</i> , 2019, 9, 8670.	3.3	407
4	Microplastics in urban and highway stormwater retention ponds. <i>Science of the Total Environment</i> , 2019, 671, 992-1000.	8.0	286
5	A conceptual ecosystem model of microbial communities in enhanced biological phosphorus removal plants. <i>Water Research</i> , 2010, 44, 5070-5088.	11.3	257
6	Drinking plastics? – Quantification and qualification of microplastics in drinking water distribution systems by FTIR and Py-GCMS. <i>Water Research</i> , 2021, 188, 116519.	11.3	151
7	Corrosion of concrete sewers – The kinetics of hydrogen sulfide oxidation. <i>Science of the Total Environment</i> , 2008, 394, 162-170.	8.0	149
8	Sulfide-iron interactions in domestic wastewater from a gravity sewer. <i>Water Research</i> , 2005, 39, 2747-2755.	11.3	143
9	Toward the Systematic Identification of Microplastics in the Environment: Evaluation of a New Independent Software Tool (siMPle) for Spectroscopic Analysis. <i>Applied Spectroscopy</i> , 2020, 74, 1127-1138.	2.2	130
10	Retention of microplastics in sediments of urban and highway stormwater retention ponds. <i>Environmental Pollution</i> , 2019, 255, 113335.	7.5	112
11	Biocides in urban wastewater treatment plant influent at dry and wet weather: Concentrations, mass flows and possible sources. <i>Water Research</i> , 2014, 60, 64-74.	11.3	97
12	Identification and Quantification of Microplastics in Potable Water and Their Sources within Water Treatment Works in England and Wales. <i>Environmental Science & Technology</i> , 2020, 54, 12326-12334.	10.0	97
13	Dynamics of biocide emissions from buildings in a suburban stormwater catchment – Concentrations, mass loads and emission processes. <i>Water Research</i> , 2014, 56, 66-76.	11.3	96
14	Kinetics and stoichiometry of sulfide oxidation by sewer biofilms. <i>Water Research</i> , 2005, 39, 4119-4125.	11.3	89
15	Microplastics in a Stormwater Pond. <i>Water (Switzerland)</i> , 2019, 11, 1466.	2.7	88
16	Sewer Processes. , 0, , .		87
17	Towards a better understanding of sewer exfiltration. <i>Water Research</i> , 2008, 42, 2385-2394.	11.3	83
18	Determination of Kinetics and Stoichiometry of Chemical Sulfide Oxidation in Wastewater of Sewer Networks. <i>Environmental Science & Technology</i> , 2003, 37, 3853-3858.	10.0	79

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19	Influence of pipe material and surfaces on sulfide related odor and corrosion in sewers. <i>Water Research</i> , 2008, 42, 4206-4214.	11.3	79
20	Kinetics and Stoichiometry of Aerobic Sulfide Oxidation in Wastewater from Sewers-Effects of pH and Temperature. <i>Water Environment Research</i> , 2006, 78, 275-283.	2.7	75
21	Semi-automated analysis of microplastics in complex wastewater samples. <i>Environmental Pollution</i> , 2021, 268, 115841.	7.5	72
22	Effect of Temperature on Air-Water Transfer of Hydrogen Sulfide. <i>Journal of Environmental Engineering, ASCE</i> , 2004, 130, 104-109.	1.4	61
23	Removal of >10 Åµm Microplastic Particles from Treated Wastewater by a Disc Filter. <i>Water (Switzerland)</i> , 2019, 11, 1935.	2.7	60
24	Quantification of plankton-sized microplastics in a productive coastal Arctic marine ecosystem. <i>Environmental Pollution</i> , 2020, 266, 115248.	7.5	52
25	Comparison of methods for determination of microbial biomass in wastewater. <i>Water Research</i> , 2001, 35, 1649-1658.	11.3	49
26	Effects of pH and Iron Concentrations on Sulfide Precipitation in Wastewater Collection Systems. <i>Water Environment Research</i> , 2008, 80, 380-384.	2.7	49
27	Influence of Wastewater Constituents on Hydrogen Sulfide Emission in Sewer Networks. <i>Journal of Environmental Engineering, ASCE</i> , 2005, 131, 1676-1683.	1.4	48
28	Microplastics Removal from Treated Wastewater by a Biofilter. <i>Water (Switzerland)</i> , 2020, 12, 1085.	2.7	48
29	A complete mass balance for plastics in a wastewater treatment plant - Macroplastics contributes more than microplastics. <i>Water Research</i> , 2021, 201, 117307.	11.3	47
30	Leaching of Terbutryn and Its Photodegradation Products from Artificial Walls under Natural Weather Conditions. <i>Environmental Science & Technology</i> , 2016, 50, 4289-4295.	10.0	46
31	Assessment of input of organic micropollutants and microplastics into the Baltic Sea by urban waters. <i>Marine Pollution Bulletin</i> , 2019, 148, 149-155.	5.0	45
32	Microplastic pollution in drinking water. <i>Current Opinion in Toxicology</i> , 2021, 28, 70-75.	5.0	44
33	A nationwide assessment of plastic pollution in the Danish realm using citizen science. <i>Scientific Reports</i> , 2020, 10, 17773.	3.3	41
34	Growth kinetics of hydrogen sulfide oxidizing bacteria in corroded concrete from sewers. <i>Journal of Hazardous Materials</i> , 2011, 189, 685-691.	12.4	40
35	Degradation of PPCPs in activated sludge from different WWTPs in Denmark. <i>Ecotoxicology</i> , 2015, 24, 2073-2080.	2.4	40
36	Modeling of Hydrogen Sulfide Oxidation in Concrete Corrosion Products from Sewer Pipes. <i>Water Environment Research</i> , 2009, 81, 365-373.	2.7	38

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37	Exploratory analysis of hyperspectral FTIR data obtained from environmental microplastics samples. <i>Analytical Methods</i> , 2020, 12, 781-791.	2.7	38
38	Air-Water Transfer of Hydrogen Sulfide: An Approach for Application in Sewer Networks. <i>Water Environment Research</i> , 2004, 76, 81-88.	2.7	36
39	Aerobic and Anaerobic Transformations of Sulfide in a Sewer System—Field Study and Model Simulations. <i>Water Environment Research</i> , 2008, 80, 16-25.	2.7	36
40	Photodegradation of octylisothiazolinone and semi-field emissions from facade coatings. <i>Scientific Reports</i> , 2017, 7, 41501.	3.3	31
41	Microplastics degradation through hydrothermal liquefaction of wastewater treatment sludge. <i>Journal of Cleaner Production</i> , 2022, 335, 130383.	9.3	31
42	Stoichiometric and kinetic model parameters for microbial transformations of suspended solids in combined sewer systems. <i>Water Research</i> , 1999, 33, 3127-3141.	11.3	30
43	Improved urban stormwater treatment and pollutant removal pathways in amended wet detention ponds. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2012, 47, 1466-1477.	1.7	30
44	Monitoring and modelling the performance of a wet pond for treatment of highway runoff in cold climates. <i>Alliance for Global Sustainability Bookseries</i> , 2007, , 499-509.	0.2	27
45	Biodegradability of organic matter associated with sewer sediments during first flush. <i>Science of the Total Environment</i> , 2009, 407, 2989-2995.	8.0	26
46	Distribution of metals in fauna, flora and sediments of wet detention ponds and natural shallow lakes. <i>Ecological Engineering</i> , 2014, 66, 43-51.	3.6	24
47	Sorption Media for Stormwater Treatment—A Laboratory Evaluation of Five Low-Cost Media for Their Ability to Remove Metals and Phosphorus from Artificial Stormwater. <i>Water Environment Research</i> , 2012, 84, 605-616.	2.7	23
48	Resuspension and oxygen uptake of sediments in combined sewers. <i>Urban Water</i> , 2000, 2, 21-27.	0.5	22
49	Effect of Sewer Headspace Air-Flow on Hydrogen Sulfide Removal by Corroding Concrete Surfaces. <i>Water Environment Research</i> , 2012, 84, 265-273.	2.7	21
50	Sorption and Degradation Potential of Pharmaceuticals in Sediments from a Stormwater Retention Pond. <i>Water (Switzerland)</i> , 2019, 11, 526.	2.7	20
51	Gas Phase Transport in Gravity Sewers-A Methodology for Determination of Horizontal Gas Transport and Ventilation. <i>Water Environment Research</i> , 2006, 78, 2203-2209.	2.7	19
52	Modeling Sulfides, pH and Hydrogen Sulfide Gas in the Sewers of San Francisco. <i>Water Environment Research</i> , 2015, 87, 1980-1989.	2.7	19
53	Accelerated weathering affects the chemical and physical properties of marine antifouling paint microplastics and their identification by ATR-FTIR spectroscopy. <i>Chemosphere</i> , 2021, 274, 129749.	8.2	19
54	Effects of temperature and dissolved oxygen on hydrolysis of sewer solids. <i>Water Research</i> , 1999, 33, 3119-3126.	11.3	18

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55	Heavy metals, PAHs and toxicity in stormwater wet detention ponds. <i>Water Science and Technology</i> , 2011, 64, 503-511.	2.5	18
56	Invertebrates in stormwater wet detention ponds – Sediment accumulation and bioaccumulation of heavy metals have no effect on biodiversity and community structure. <i>Science of the Total Environment</i> , 2016, 566-567, 1579-1587.	8.0	18
57	Accelerated Weathering Increases the Release of Toxic Leachates from Microplastic Particles as Demonstrated through Altered Toxicity to the Green Algae <i>Raphidocelis subcapitata</i> . <i>Toxics</i> , 2021, 9, 185.	3.7	18
58	Anaerobic Transformations of Organic Matter in Collection Systems. <i>Water Environment Research</i> , 2011, 83, 532-540.	2.7	17
59	Sulfide Precipitation in Wastewater at Short Timescales. <i>Water (Switzerland)</i> , 2017, 9, 670.	2.7	17
60	Sewer exfiltration and the colmation layer. <i>Water Science and Technology</i> , 2009, 59, 2273-2280.	2.5	15
61	Effects of Iron on Chemical Sulfide Oxidation in Wastewater from Sewer Networks. <i>Journal of Environmental Engineering, ASCE</i> , 2007, 133, 655-658.	1.4	14
62	Survival of hydrogen sulfide oxidizing bacteria on corroded concrete surfaces of sewer systems. <i>Water Science and Technology</i> , 2008, 57, 1721-1726.	2.5	14
63	A sewer process model as planning and management tool – hydrogen sulfide simulation at catchment scale. <i>Water Science and Technology</i> , 2011, 64, 348-354.	2.5	14
64	The occurrence and fate of microplastics in a mesophilic anaerobic digester receiving sewage sludge, grease, and fatty slurries. <i>Science of the Total Environment</i> , 2021, 798, 149287.	8.0	14
65	Aerobic microbial transformations of resuspended sediments in combined sewers - a conceptual model. <i>Water Science and Technology</i> , 1998, 37, 69-76.	2.5	14
66	Effects of aerobic-anaerobic transient conditions on sulfur and metal cycles in sewer biofilms. <i>Biofilms</i> , 2005, 2, 81-91.	0.6	13
67	Bioaccumulation of heavy metals in two wet retention ponds. <i>Urban Water Journal</i> , 2016, 13, 697-709.	2.1	13
68	Kinetics of sulfide precipitation with ferrous and ferric iron in wastewater. <i>Water Science and Technology</i> , 2018, 78, 1071-1081.	2.5	13
69	Photodegradation of three stormwater biocides. <i>Urban Water Journal</i> , 2017, 14, 53-60.	2.1	12
70	Modeling the eutrophication of two mature planted stormwater ponds for runoff control. <i>Ecological Engineering</i> , 2013, 61, 601-613.	3.6	11
71	Hydrogen sulphide removal from corroding concrete: Comparison between surface removal rates and biomass activity. <i>Environmental Technology (United Kingdom)</i> , 2009, 30, 1291-1296.	2.2	10
72	Release of hydrogen sulfide in a sewer system under intermittent flow conditions: the Ericeira case study, in Portugal. <i>Water Science and Technology</i> , 2017, 75, 1702-1711.	2.5	10

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73	Performance and Modelling of a Highway Wet Detention Pond Designed for Cold Climate. <i>Water Quality Research Journal of Canada</i> , 2009, 44, 253-262.	2.7	10
74	Aerobic microbial transformations of pipe and silt trap sediments from combined sewers. <i>Water Science and Technology</i> , 1998, 38, 249-256.	2.5	8
75	Modeling the Formation and Fate of Odorous Substances in Collection Systems. <i>Water Environment Research</i> , 2008, 80, 118-126.	2.7	8
76	Experimental Evaluation of the Stoichiometry of Sulfide-Related Concrete Sewer Corrosion. <i>Journal of Environmental Engineering, ASCE</i> , 2014, 140, 04013009.	1.4	8
77	Release of hydrogen sulfide under intermittent flow conditions – the potential of simulation models. <i>Water Science and Technology</i> , 2018, 77, 777-787.	2.5	8
78	Aerobic and Anaerobic Transformations of Sulfide in a Sewer System – Field Study and Model Simulations. <i>Proceedings of the Water Environment Federation</i> , 2006, 2006, 3654-3670.	0.0	7
79	Monitoring the startup of a wet detention pond equipped with sand filters and sorption filters. <i>Water Science and Technology</i> , 2009, 60, 1071-1079.	2.5	7
80	An exploratory study of benthic diatom communities in stormwater ponds of different land uses and varying biocide contamination. <i>Aquatic Ecology</i> , 2020, 54, 761-774.	1.5	7
81	Sewer quality modeling – a dry weather approach. <i>Urban Water</i> , 2000, 2, 295-303.	0.5	6
82	Stochastic Modeling of Chemical Oxygen Demand Transformations in Gravity Sewers. <i>Water Environment Research</i> , 2005, 77, 331-339.	2.7	6
83	Automated monitoring system for events detection in sewer network by distribution temperature sensing data measurement. <i>Water Science and Technology</i> , 2018, 78, 1499-1508.	2.5	6
84	Model Parameters for Aerobic Biological Sulfide Oxidation in Sewer Wastewater. <i>Water (Switzerland)</i> , 2021, 13, 981.	2.7	6
85	Aerobic microbial transformations of pipe and silt trap sediments from combined sewers. <i>Water Science and Technology</i> , 1999, 39, 233-249.	2.5	6
86	Modeling anaerobic organic matter transformations in the wastewater phase of sewer networks. <i>Water Science and Technology</i> , 2012, 66, 1728-1734.	2.5	5
87	Variations in activities of sewer biofilms due to ferrous and ferric iron dosing. <i>Water Science and Technology</i> , 2018, 2017, 845-858.	2.5	5
88	Planktonic algae abundance and diversity are similar in urban stormwater ponds of different geographic locations and natural shallow lakes. <i>Urban Ecosystems</i> , 2020, 23, 841-850.	2.4	5
89	Kinetics of aerobic oxidation of volatile sulfur compounds in wastewater and biofilm from sewers. <i>Water Science and Technology</i> , 2013, 68, 2330-2336.	2.5	4
90	Spatial Variability of Anaerobic Processes and Wastewater pH in Force Mains. <i>Water Environment Research</i> , 2016, 88, 747-755.	2.7	4

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91	Liquid-gas mass transfer at drop structures. <i>Water Science and Technology</i> , 2017, 75, 2257-2267.	2.5	4
92	Liquid-Gas Mass Transfer of Volatile Substances in an Energy Dissipating Structure. <i>Water Environment Research</i> , 2018, 90, 269-277.	2.7	4
93	Variations in microbiome composition of sewer biofilms due to ferrous and ferric iron dosing. <i>Cogent Environmental Science</i> , 2019, 5, 1595293.	1.6	4
94	Stochastic Modeling of Chemical Oxygen Demand Transformations in Gravity Sewers. <i>Water Environment Research</i> , 2005, 77, 331-339.	2.7	4
95	Air-water mass transfer and tracer gases in stormwater systems. <i>Water Science and Technology</i> , 2007, 56, 267-275.	2.5	3
96	Air Flow in Gravity Sewers – Determination of Wastewater Drag Coefficient. <i>Proceedings of the Water Environment Federation</i> , 2014, 2014, 1-29.	0.0	3
97	Airflow in Gravity Sewers – Determination of Wastewater Drag Coefficient. <i>Water Environment Research</i> , 2016, 88, 239-256.	2.7	3
98	Innovative aspects of environmental chemistry and technology regarding air, water, and soil pollution. <i>Environmental Science and Pollution Research</i> , 2021, 28, 58958-58968.	5.3	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. <i>Water Science and Technology</i> , 2014, 70, 586-592.	2.5	2
101	Modeling the Formation and Fate of Odorous Substances in Collection Systems. <i>Proceedings of the Water Environment Federation</i> , 2006, 2006, 1097-1112.	0.0	1
102	Anaerobic Transformations of Wastewater Organic Matter in Sewer Systems. <i>Proceedings of the Water Environment Federation</i> , 2009, 2009, 501-513.	0.0	1
103	A method for on-line measurement of wastewater organic substrate oxidation level during aerobic heterotrophic respiration. <i>Water Science and Technology</i> , 2013, 67, 1809-1815.	2.5	1
104	Modeling Odors and Hydrogen Sulfide in the Sewers of San Francisco. <i>Proceedings of the Water Environment Federation</i> , 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. <i>Alliance for Global Sustainability Bookseries</i> , 2012, , 237-248.	0.2	1
107	Discussion of “Modeling Hydrogen Sulfide Emission Rates in Gravity Sewage Collection Systems” by Ori Lahav, Yue Lu, Uri Shavit, and Richard E. Loewenthal. <i>Journal of Environmental Engineering, ASCE</i> , 2005, 131, 1761-1762.	1.4	0
108	Apparent diffusion coefficients in sewer force main biofilms treated with iron salts. <i>Environmental Science: Water Research and Technology</i> , 2018, 4, 1501-1510.	2.4	0

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109	No Clear Response in the Stormwater Phytoplankton Community to Biocide Contamination. Water (Switzerland), 2020, 12, 3120.	2.7	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