

Yves Comeau

List of Publications by Year in descending order

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106
papers

4,249
citations

136740

32
h-index

114278

63
g-index

106
all docs

106
docs citations

106
times ranked

3957
citing authors

#	ARTICLE	IF	CITATIONS
1	Biochemical model for enhanced biological phosphorus removal. <i>Water Research</i> , 1986, 20, 1511-1521.	5.3	459
2	Initiation of Biofilm Formation by <i>Pseudomonas aeruginosa</i> 57RP Correlates with Emergence of Hyperpiliated and Highly Adherent Phenotypic Variants Deficient in Swimming, Swarming, and Twitching Motilities. <i>Journal of Bacteriology</i> , 2001, 183, 1195-1204.	1.0	415
3	Phosphorus removal by electric arc furnace steel slag and serpentinite. <i>Water Research</i> , 2006, 40, 1547-1554.	5.3	217
4	Phosphorus Saturation Potential: A Parameter for Estimating the Longevity of Constructed Wetland Systems. <i>Environmental Science & Technology</i> , 2002, 36, 4642-4648.	4.6	212
5	Artificial aeration to increase pollutant removal efficiency of constructed wetlands in cold climate. <i>Ecological Engineering</i> , 2006, 27, 258-264.	1.6	206
6	Influence of macrophyte species on microbial density and activity in constructed wetlands. <i>Water Science and Technology</i> , 2007, 56, 249-254.	1.2	171
7	Two-liquid-phase bioreactors for enhanced degradation of hydrophobic/toxic compounds. <i>Biodegradation</i> , 1999, 10, 219-233.	1.5	148
8	Determination of Poly- β -Hydroxybutyrate and Poly- β -Hydroxyvalerate in Activated Sludge by Gas-Liquid Chromatography. <i>Applied and Environmental Microbiology</i> , 1988, 54, 2325-2327.	1.4	138
9	Phosphorus removal from wastewater by mineral apatite. <i>Water Research</i> , 2006, 40, 2965-2971.	5.3	120
10	Critical review of activated sludge modeling: State of process knowledge, modeling concepts, and limitations. <i>Biotechnology and Bioengineering</i> , 2013, 110, 24-46.	1.7	97
11	Steel slag filters to upgrade phosphorus removal in small wastewater treatment plants: Removal mechanisms and performance. <i>Ecological Engineering</i> , 2014, 68, 214-222.	1.6	91
12	Biodegradation of the endogenous residue of activated sludge. <i>Water Research</i> , 2010, 44, 2179-2188.	5.3	90
13	Bioremediation of pentachlorophenol-contaminated soil by bioaugmentation using activated soil. <i>Applied Microbiology and Biotechnology</i> , 1997, 48, 745-752.	1.7	74
14	New framework for standardized notation in wastewater treatment modelling. <i>Water Science and Technology</i> , 2010, 61, 841-857.	1.2	73
15	Removal of phosphorus, fluoride and metals from a gypsum mining leachate using steel slag filters. <i>Water Research</i> , 2013, 47, 1512-1520.	5.3	72
16	Model of Phosphorus Precipitation and Crystal Formation in Electric Arc Furnace Steel Slag Filters. <i>Environmental Science & Technology</i> , 2012, 46, 1465-1470.	4.6	71
17	Role of inoculum preparation and density on the bioremediation of 2,4-D-contaminated soil by bioaugmentation. <i>Applied Microbiology and Biotechnology</i> , 1993, 38, 681.	1.7	67
18	Two-Liquid-Phase Slurry Bioreactors To Enhance the Degradation of High-Molecular-Weight Polycyclic Aromatic Hydrocarbons in Soil. <i>Biotechnology Progress</i> , 2000, 16, 966-972.	1.3	62

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19	Effect of plant and artificial aeration on solids accumulation and biological activities in constructed wetlands. <i>Ecological Engineering</i> , 2009, 35, 1005-1010.	1.6	62
20	Phosphorus budget as a water quality management tool for closed aquatic mesocosms. <i>Water Research</i> , 2002, 36, 1007-1017.	5.3	57
21	Activation of an indigenous microbial consortium for bioaugmentation of pentachlorophenol/creosote contaminated soils. <i>Applied Microbiology and Biotechnology</i> , 1994, 40, 926-932.	1.7	54
22	Effects of artificial aeration, macrophyte species, and loading rate on removal efficiency in constructed wetland mesocosms treating fish farm wastewater. <i>Journal of Environmental Engineering and Science</i> , 2007, 6, 409-414.	0.3	48
23	Data Reconciliation for Wastewater Treatment Plant Simulation Studies—Planning for High-Quality Data and Typical Sources of Errors. <i>Water Environment Research</i> , 2010, 82, 426-433.	1.3	46
24	In situ characterization of nitrifying biofilm: Minimizing biomass loss and preserving perspective. <i>Water Research</i> , 2009, 43, 1775-1787.	5.3	45
25	Geosmin causes off-flavour in arctic charr in recirculating aquaculture systems. <i>Aquaculture Research</i> , 2011, 42, 360-365.	0.9	45
26	Substrate Interaction during Aerobic Biodegradation of Creosote-Related Compounds: A Factorial Batch Experiment. <i>Environmental Science & Technology</i> , 1995, 29, 1944-1952.	4.6	41
27	Treatment of pig farm effluents by ultrafiltration. <i>Journal of Membrane Science</i> , 2005, 255, 225-231.	4.1	36
28	Design optimization of a self-cleaning moving-bed bioreactor for seawater denitrification. <i>Water Research</i> , 2006, 40, 249-258.	5.3	36
29	Effect of plant species on sludge dewatering and fate of pollutants in sludge treatment wetlands. <i>Ecological Engineering</i> , 2013, 61, 593-600.	1.6	36
30	Effect of ozonation on anaerobic digestion sludge activity and viability. <i>Chemosphere</i> , 2017, 176, 405-411.	4.2	36
31	Seawater denitrification in a closed mesocosm by a submerged moving bed biofilm reactor. <i>Water Research</i> , 2005, 39, 3409-3417.	5.3	35
32	Characterization of the heterotrophic biomass and the endogenous residue of activated sludge. <i>Water Research</i> , 2012, 46, 653-668.	5.3	33
33	Application of Molecular Biology Techniques for Isolating and Monitoring Pollutant-Degrading Bacteria. <i>Water Quality Research Journal of Canada</i> , 1993, 28, 275-288.	1.2	32
34	Optimization of plasma proteins concentration by ultrafiltration. <i>Journal of Membrane Science</i> , 1998, 142, 159-171.	4.1	32
35	Ecotoxicological Assessment and Effects of Physicochemical Factors on Biofilm Development in Groundwater Conditions. <i>Environmental Science & Technology</i> , 1998, 32, 1105-1111.	4.6	32
36	Kinetic analysis of attached growth nitrification in cold climates. <i>Water Science and Technology</i> , 2009, 60, 1173-1184.	1.2	32

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37	Effects of Long Exposure to Low Temperatures on Nitrifying Biofilm and Biomass in Wastewater Treatment. <i>Water Environment Research</i> , 2012, 84, 328-338.	1.3	32
38	Biodegradation of the endogenous residue of activated sludge in a membrane bioreactor with continuous or on-off aeration. <i>Water Research</i> , 2012, 46, 2837-2850.	5.3	32
39	Modeling aerobic carbon source degradation processes using titrimetric data and combined respirometric-titrimetric data: Experimental data and model structure. <i>Biotechnology and Bioengineering</i> , 2002, 79, 741-753.	1.7	31
40	Steel slag filter design criteria for phosphorus removal from wastewater in decentralized applications. <i>Water Research</i> , 2018, 143, 28-37.	5.3	30
41	Phosphorus Removal by Steel Slag Filters: Modeling Dissolution and Precipitation Kinetics to Predict Longevity. <i>Environmental Science & Technology</i> , 2014, 48, 7486-7493.	4.6	29
42	Modelling the degradation of endogenous residue and "unbiodegradable" influent organic suspended solids to predict sludge production. <i>Water Science and Technology</i> , 2013, 67, 789-796.	1.2	26
43	Willows for environmental projects: A literature review of results on evapotranspiration rate and its driving factors across the genus <i>Salix</i> . <i>Journal of Environmental Management</i> , 2019, 246, 526-537.	3.8	25
44	Modeling acidogenic and sulfate-reducing processes for the determination of fermentable fractions in wastewater. <i>Biotechnology and Bioengineering</i> , 2002, 80, 525-536.	1.7	23
45	Effect of loading rate on performance of constructed wetlands treating an anaerobic supernatant. <i>Water Science and Technology</i> , 2007, 56, 23-29.	1.2	23
46	Evapotranspiration of a willow cultivar (<i>Salix miyabeana</i> SX67) grown in a full-scale treatment wetland. <i>Ecological Engineering</i> , 2019, 127, 254-262.	1.6	23
47	Operating conditions for the determination of the biochemical acidogenic potential of wastewater. <i>Water Research</i> , 2002, 36, 2337-2341.	5.3	22
48	Investigation of Laboratory-Scale and Pilot-Scale Attached Growth Ammonia Removal Kinetics at Cold Temperature and Low Influent Carbon. <i>Water Quality Research Journal of Canada</i> , 2010, 45, 427-436.	1.2	21
49	Treatment and valorization of a primary municipal wastewater by a short rotation willow coppice vegetation filter. <i>Ecological Engineering</i> , 2019, 130, 32-44.	1.6	21
50	Design Strategy for a Simultaneous Nitrification/Denitrification of a Slaughterhouse Wastewater in a Sequencing Batch Reactor: ASM2D Modeling and Verification. <i>Environmental Technology (United Kingdom)</i> , 2012, 33, 1011-1020.	1.2	21
51	Characterizing hydrocyclone performance for grit removal from wastewater treatment activated sludge plants. <i>Minerals Engineering</i> , 2010, 23, 359-364.	1.8	18
52	Assessing Alternative Media for Ballasted Flocculation. <i>Journal of Environmental Engineering, ASCE</i> , 2017, 143, .	0.7	18
53	Fate and inhibitory effect of silver nanoparticles in high rate moving bed biofilm reactors. <i>Science of the Total Environment</i> , 2019, 647, 1199-1210.	3.9	18
54	A time series model for influent temperature estimation: Application to dynamic temperature modelling of an aerated lagoon. <i>Water Research</i> , 2008, 42, 2551-2562.	5.3	17

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55	Treatment of fish farm sludge supernatant by aerated filter beds and steel slag filtersâ€™ effect of organic loading rate. <i>Ecological Engineering</i> , 2016, 94, 190-199.	1.6	17
56	Substrate interaction during aerobic biodegradation of creosote-related compounds in columns of sandy aquifer material. <i>Journal of Contaminant Hydrology</i> , 1998, 29, 165-183.	1.6	16
57	Minimizing phosphorus discharge from aquaculture earth ponds by a novel sediment retention system. <i>Aquacultural Engineering</i> , 2010, 43, 94-100.	1.4	15
58	Modelling Nitrification of a Lagoon Effluent in Moving-Bed Biofilm Reactors. <i>Water Quality Research Journal of Canada</i> , 2007, 42, 284-294.	1.2	14
59	Compact secondary treatment train combining a lab-scale moving bed biofilm reactor and enhanced flotation processes. <i>Water Research</i> , 2016, 106, 571-582.	5.3	14
60	High biomass yield increases in a primary effluent wastewater phytofiltration are associated to altered leaf morphology and stomatal size in <i>Salix miyabeana</i> . <i>Science of the Total Environment</i> , 2020, 738, 139728.	3.9	14
61	Numerical simulations with the P-Hydroslag model to predict phosphorus removal by steel slag filters. <i>Water Research</i> , 2017, 126, 421-432.	5.3	12
62	Combination of Slag, Limestone and Sedimentary Apatite in Columns for Phosphorus Removal from Sludge Fish Farm Effluents. <i>Water (Switzerland)</i> , 2010, 2, 500-509.	1.2	11
63	Improving phosphorus removal of conventional septic tanks by a recirculating steel slag filter. <i>Water Quality Research Journal of Canada</i> , 2015, 50, 211-218.	1.2	11
64	Modeling the Effect of Plants and Peat on Evapotranspiration in Constructed Wetlands. <i>International Journal of Chemical Engineering</i> , 2010, 2010, 1-6.	1.4	10
65	Ozonation of endogenous residue and active biomass from a synthetic activated sludge. <i>Water Science and Technology</i> , 2011, 63, 297-302.	1.2	10
66	Impacts of Continuous Inflow of Low Concentrations of Silver Nanoparticles on Biological Performance and Microbial Communities of Aerobic Heterotrophic Wastewater Biofilm. <i>Environmental Science & Technology</i> , 2019, 53, 9148-9159.	4.6	10
67	Respirometric control of the anaerobic period duration of an sbr bio-p process. <i>Water Science and Technology</i> , 1997, 36, 293.	1.2	9
68	Establishment and potential use of woody species in treatment wetlands. <i>International Journal of Phytoremediation</i> , 2020, 22, 295-304.	1.7	9
69	Indirect Polyphosphate Quantification in Activated Sludge. <i>Water Quality Research Journal of Canada</i> , 1990, 25, 161-174.	1.2	8
70	Enhancement of Pentachlorophenol Biodegradation Using Organic and Inorganic Supports. <i>Bioremediation Journal</i> , 1999, 3, 35-45.	1.0	7
71	Development and modelling of a steel slag filter effluent neutralization process with CO ₂ -enriched air from an upstream bioprocess. <i>Water Research</i> , 2018, 129, 11-19.	5.3	7
72	Optimization of the wastewater treatment capacity of a short rotation willow coppice vegetation filter. <i>Ecological Engineering</i> , 2020, 158, 106013.	1.6	7

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73	Dynamic modelling of nitrification in an aerated facultative lagoon. <i>Water Research</i> , 2008, 42, 424-432.	5.3	6
74	Inhibition of biological phosphorus removal in a sequencing moving bed biofilm reactor in seawater. <i>Water Science and Technology</i> , 2009, 59, 1101-1110.	1.2	6
75	Treatment of a mixed wood preservative leachate by a hybrid constructed wetland and a willow planted filter. <i>Water Science and Technology</i> , 2017, 76, 164-171.	1.2	6
76	Phosphorus removal from trout farm effluents by constructed wetlands. <i>Water Science and Technology</i> , 2001, 44, 55-60.	1.2	6
77	Respirometric control of the anaerobic period duration of an SBR bio-P process. <i>Water Science and Technology</i> , 1997, 36, 293-300.	1.2	5
78	Effect of baffles on nitrification in aerated facultative lagoons in a cold climate. <i>Water Science and Technology</i> , 2007, 55, 73-79.	1.2	5
79	Uncertainty and variability in enhanced biological phosphorus removal (EBPR) stoichiometry: consequences for process modelling and optimization. <i>Water Science and Technology</i> , 2010, 61, 1793-1800.	1.2	5
80	Decreasing phosphorus discharge in fish farm ponds by treating the sludge generated with sludge drying beds. <i>Aquaculture</i> , 2011, 318, 7-14.	1.7	5
81	Ecophysiological Responses of a Willow Cultivar (<i>Salix miyabeana</i> â€”SX67â€”™) Irrigated with Treated Wood Leachate. <i>Water, Air, and Soil Pollution</i> , 2019, 230, 1.	1.1	5
82	Chemical Clogging and Evolution of Head Losses in Steel Slag Filters Used for Phosphorus Removal. <i>Water (Switzerland)</i> , 2020, 12, 1517.	1.2	5
83	Ozonation of Primary Sludge and Digested Sludge to Increase Methane Production in a Chemically Enhanced Primary Treatment Facility. <i>Ozone: Science and Engineering</i> , 2017, 39, 148-158.	1.4	4
84	Recovery of particulate matter from a high-rate moving bed biofilm reactor by high-rate dissolved air flotation. <i>Water Quality Research Journal of Canada</i> , 2018, 53, 181-190.	1.2	4
85	Macrophyte Potential to Treat Leachate Contaminated with Wood Preservatives: Plant Tolerance and Bioaccumulation Capacity. <i>Plants</i> , 2020, 9, 1774.	1.6	4
86	Comment on "Modelling the PAO"GAO competition: Effects of carbon source, pH and temperature" by Lopez-Vazquez, C.M., Oehmen, A., Hooijmans, C.M., Brdjanovic, D., Gijzen, H.J., Yuan, Z., van Loosdrecht, M.C.M. <i>Water Res.</i> (2009). <i>Water Research</i> , 2009, 43, 2947-2949.	5.3	3
87	Modeling Thermomechanical Pulp and Paper Activated Sludge Treatment Plants to Gain Insight to the Causes of Bulking. <i>Water Environment Research</i> , 2010, 82, 362-373.	1.3	3
88	Steel Slag Filtration for Extensive Treatment of Mining Wastewater. <i>Proceedings of the Water Environment Federation</i> , 2011, 2011, 188-201.	0.0	3
89	Mechanisms for Reduced Excess Sludge Production in the Cannibal Process. <i>Water Environment Research</i> , 2015, 87, 687-696.	1.3	3
90	Sludge reduction via biodegradation of the endogenous residue (XE): experimental verification and modeling. <i>Water Science and Technology</i> , 2017, 75, 561-570.	1.2	3

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91	Organic matter capture by a high-rate inoculum-chemostat and MBBR system. <i>Water Quality Research Journal of Canada</i> , 2017, 52, 166-177.	1.2	3
92	Two-year performance of single-stage vertical flow treatment wetlands planted with willows under cold-climate conditions. <i>Ecological Engineering</i> , 2020, 153, 105912.	1.6	3
93	Design of a zero liquid discharge leachate treatment system using an evapotranspiration willow bed. <i>Water Research</i> , 2022, 209, 117950.	5.3	3
94	Editorial: Water Resource Recovery Modelling. <i>Water Science and Technology</i> , 2019, 79, 1-2.	1.2	2
95	In situ chelation of phosphorus using microencapsulated aluminum and iron sulfate to bind intestinal phosphorus in rainbow trout (<i>Oncorhynchus mykiss</i>). <i>Animal Feed Science and Technology</i> , 2020, 269, 114675.	1.1	2
96	Phosphorus Removal and Carbon Dioxide Capture in a Pilot Conventional Septic System Upgraded with a Sidestream Steel Slag Filter. <i>Water (Switzerland)</i> , 2020, 12, 275.	1.2	2
97	Schematic Representation of Activated Sludge Models. <i>Proceedings of the Water Environment Federation</i> , 2008, 2008, 3266-3282.	0.0	1
98	Biological Phosphorus Removal and Denitrification of a Fish Farm Effluent in a Sequencing Moving Bed Biofilm Reactor. <i>Water Quality Research Journal of Canada</i> , 2009, 44, 233-242.	1.2	1
99	Activated sludge with low solids production: modified ASM1 modeling and simulation. <i>Desalination and Water Treatment</i> , 2014, , 1-12.	1.0	1
100	Activated Sludge Production Parameters and Nutrient Content of Organic Sludge Components. <i>Water Environment Research</i> , 2017, 89, 51-61.	1.3	1
101	Evaluation of the Feasibility of Implementing Biological Phosphorus Removal in Wastewater Treatment Plants. <i>Water Quality Research Journal of Canada</i> , 1991, 26, 475-494.	1.2	0
102	Process Modeling of Aerated Facultative Lagoon Systems: Practical Applications. <i>Proceedings of the Water Environment Federation</i> , 2008, 2008, 1462-1475.	0.0	0
103	Biological Phosphorus Removal: Impact of the Aerobic Phase on Modeling Continuous-Flow Systems. <i>Proceedings of the Water Environment Federation</i> , 2009, 2009, 63-83.	0.0	0
104	Hydrocycloning Influent, Mixed Liquor or Return Activated Sludge for Best Grit Removal and Sludge Production Reduction. <i>Proceedings of the Water Environment Federation</i> , 2011, 2011, 2326-2338.	0.0	0
105	Reducing Secondary Sludge Production by Providing a Long Sludge Age, Mixed Liquor Fermentation and the Removal of Unbiodegradable Components. <i>Proceedings of the Water Environment Federation</i> , 2011, 2011, 6401-6408.	0.0	0
106	Specificity and Potential Applications of the Biochemical Acidogenic Potential Method for the Anaerobic Characterization of Wastewater. <i>Water Environment Research</i> , 2005, 77, 340-347.	1.3	0