Steven C Chapra

List of Publications by Year
in descending order

97 papers	5,846 citations	109137 35 h-index	74018 75 g-index
100 all docs	100 docs citations	100 times ranked	5618 citing authors

#	Article	IF	Citations
1	Managing Agricultural Phosphorus for Protection of Surface Waters: Issues and Options. Journal of Environmental Quality, 1994, 23, 437-451.	1.0	1,132
2	Reducing Phosphorus to Curb Lake Eutrophication is a Success. Environmental Science & Technology, 2016, 50, 8923-8929.	4.6	761
3	Screening Analysis of Human Pharmaceutical Compounds in U.S. Surface Waters. Environmental Science & Technology, 2004, 38, 838-849.	4.6	227
4	Climate Change Impacts on Harmful Algal Blooms in U.S. Freshwaters: A Screening-Level Assessment. Environmental Science & Technology, 2017, 51, 8933-8943.	4.6	220
5	QUAL2Kw â€" A framework for modeling water quality in streams and rivers using a genetic algorithm for calibration. Environmental Modelling and Software, 2006, 21, 419-425.	1.9	189
6	Bioavailability of Phosphorus Inputs to Lakes. Journal of Environmental Quality, 1982, 11, 555-563.	1.0	186
7	Great Lakes total phosphorus revisited: 1. Loading analysis and update (1994â€"2008). Journal of Great Lakes Research, 2012, 38, 730-740.	0.8	177
8	Long-term trends of nutrients and trophic response variables for the Great Lakes. Limnology and Oceanography, 2015, 60, 696-721.	1.6	174
9	Delta Method For Estimating Primary Production, Respiration, And Reaeration In Streams. Journal of Environmental Engineering, ASCE, 1991, 117, 640-655.	0.7	157
10	Long-term phenomenological model of phosphorus and oxygen for stratified lakes. Water Research, 1991, 25, 707-715.	5.3	130
11	Long-term trends of Great Lakes major ion chemistry. Journal of Great Lakes Research, 2012, 38, 550-560.	0.8	120
12	Sewage contamination in the upper Mississippi River as measured by the fecal sterol, coprostanol. Water Research, 1995, 29, 1427-1436.	5.3	117
13	Remote Sensing of Submerged Aquatic Vegetation in a Shallow Non-Turbid River Using an Unmanned Aerial Vehicle. Remote Sensing, 2014, 6, 12815-12836.	1.8	117
14	Great Lakes chloride trends: Long-term mass balance and loading analysis. Journal of Great Lakes Research, 2009, 35, 272-284.	0.8	92
15	An efficient numerical solution of the transient storage equations for solute transport in small streams. Water Resources Research, 1993, 29, 211-215.	1.7	90
16	Engineering Water Quality Models and TMDLs. Journal of Water Resources Planning and Management - ASCE, 2003, 129, 247-256.	1.3	87
17	Comment on â€˜An empirical method of estimating the retention of phosphorus in lakesâ€™ by W. B. Kirchner and P. J. Dillon. Water Resources Research, 1975, 11, 1033-1034.	1.7	79
18	Great Lakes total phosphorus revisited: 2. Mass balance modeling. Journal of Great Lakes Research, 2012, 38, 741-754.	0.8	77

#	Article	IF	Citations
19	Total Phosphorus Model for the Great Lakes. American Society of Civil Engineers, Journal of the Environmental Engineering Division, 1977, 103, 147-161.	0.3	72
20	A model of degradation and production of three pools of dissolved organic matter in an alpine lake. Limnology and Oceanography, 2009, 54, 2213-2227.	1.6	71
21	On the relationship of transient storage and aggregated dead zone models of longitudinal solute transport in streams. Water Resources Research, 2000, 36, 213-224.	1.7	70
22	Decision Support System for Adaptive Water Supply Management. Journal of Water Resources Planning and Management - ASCE, 2003, 129, 165-177.	1.3	69
23	Expressing the Phosphorus Loading Concept in Probabilistic Terms. Journal of the Fisheries Research Board of Canada, 1979, 36, 225-229.	1.0	65
24	Reactive Solute Transport in Streams: 1. Development of an Equilibrium-Based Model. Water Resources Research, 1996, 32, 409-418.	1.7	65
25	Modeling the potential effects of climate change on water temperature downstream of a shallow reservoir, lower madison river, MT. Climatic Change, 2005, 68, 331-353.	1.7	65
26	A chlorophyll <i>a</i> model and its relationship to phosphorus loading plots for lakes. Water Resources Research, 1976, 12, 1260-1264.	1.7	62
27	Quantification of the Lake Trophic Typologies of Naumann (Surface Quality) and Thienemann (Oxygen) with Special Reference to the Great Lakes. Journal of Great Lakes Research, 1981, 7, 182-193.	0.8	61
28	Confirmation of water quality models. Ecological Modelling, 1983, 20, 113-133.	1.2	53
29	Great Lakes Eutrophication: The Effect of Point Source Control of Total Phosphorus. Science, 1977, 196, 1448-1450.	6.0	52
30	Temperature Model for Highly Transient Shallow Streams. Journal of Hydraulic Engineering, 1997, 123, 30-40.	0.7	51
31	Improving in-lake water quality modeling using variable chlorophyll a/algal biomass ratios. Environmental Modelling and Software, 2018, 101, 73-85.	1.9	50
32	A client-side web application for interactive environmental simulation modeling. Environmental Modelling and Software, 2014, 55, 49-60.	1.9	46
33	Reactive Solute Transport in Streams: 2. Simulation of a p H Modification Experiment. Water Resources Research, 1996, 32, 419-430.	1.7	43
34	Risk-based modelling of surface water quality: a case study of the Charles River, Massachusetts. Journal of Hydrology, 2003, 274, 225-247.	2.3	38
35	Modelling Dissolved Oxygen Depression in an Urban River in China. Water (Switzerland), 2017, 9, 520.	1.2	38
36	Climate Change Impacts on US Water Quality Using Two Models: HAWQS and US Basins. Water (Switzerland), 2017, 9, 118.	1.2	35

#	Article	IF	Citations
37	Modeling Impact of Storage Zones on Stream Dissolved Oxygen. Journal of Environmental Engineering, ASCE, 1999, 125, 415-419.	0.7	30
38	Production of microbially-derived fulvic acid from photolysis of quinone-containing extracellular products of phytoplankton. Aquatic Sciences, 2009, 71, 170-178.	0.6	30
39	Rapid Calculation of Oxygen in Streams: Approximate Delta Method. Journal of Environmental Engineering, ASCE, 2005, 131, 336-342.	0.7	27
40	Modeling the impacts of calcite precipitation on the epilimnion of an ultraoligotrophic, hard-water lake. Ecological Modelling, 2011, 222, 76-90.	1.2	27
41	Classic Optimization Techniques Applied to Stormwater and Nonpoint Source Pollution Management at the Watershed Scale. Journal of Water Resources Planning and Management - ASCE, 2013, 139, 486-491.	1.3	27
42	Comparison of an Ecological Model of Lake Ontario and Phosphorus Loading Models. Journal of the Fisheries Research Board of Canada, 1977, 34, 286-290.	1.0	26
43	Determination of Reaeration Coefficients: Whole-Lake Approach. Journal of Environmental Engineering, ASCE, 1996, 122, 269-275.	0.7	26
44	Transient Storage and Gas Transfer in Lowland Stream. Journal of Environmental Engineering, ASCE, 2000, 126, 708-712.	0.7	26
45	Impact of Global Warming on Dissolved Oxygen and BOD Assimilative Capacity of the Worldâ€™s Rivers: Modeling Analysis. Water (Switzerland), 2021, 13, 2408.	1.2	26
46	Analysis of the residual nutrient load from a combined sewer system in a watershed of a deep Italian lake. Journal of Hydrology, 2019, 571, 202-213.	2.3	25
47	A note on error analysis for a phosphorus retention model. Water Resources Research, 1979, 15, 1643-1646.	1.7	23
48	Modeling Zebra Mussel Impacts on Water Quality of Seneca River, New York. Journal of Environmental Engineering, ASCE, 2002, 128, 1158-1168.	0.7	21
49	Mass-balance modeling framework for simulating and managing long-term water quality for the lower Great Lakes. Journal of Great Lakes Research, 2016, 42, 1166-1173.	0.8	20
50	Modeling of NOM-Facilitated PAH Transport through Low-focSediment. Journal of Environmental Engineering, ASCE, 1995, 121, 438-446.	0.7	19
51	Climate change impacts and greenhouse gas mitigation effects on U.S. water quality. Journal of Advances in Modeling Earth Systems, 2015, 7, 1326-1338.	1.3	19
52	Simulation of Recent and Projected Total Phosphorus Trends in Lake Ontario. Journal of Great Lakes Research, 1980, 6, 101-112.	0.8	18
53	Modeling the lateral variation of bottom-attached algae in rivers. Ecological Modelling, 2013, 267, 11-25.	1.2	16
54	Parsimonious Model for Assessing Nutrient Impacts on Periphyton-Dominated Streams. Journal of Environmental Engineering, ASCE, 2014, 140, .	0.7	16

#	Article	IF	Citations
55	Toxicantâ€Loading Concept for Organic Contaminants in Lakes. Journal of Environmental Engineering, ASCE, 1991, 117, 656-677.	0.7	15
56	Trihalomethane Precursor Model for Lake Youngs, Washington. Journal of Water Resources Planning and Management - ASCE, 1997, 123, 259-265.	1.3	15
57	Challenges of modelling water quality in a shallow prairie lake with seasonal ice cover. Ecological Modelling, 2018, 384, 43-52.	1.2	15
58	Applying phosphorus loading models to embayments1. Limnology and Oceanography, 1979, 24, 163-168.	1.6	14
59	Diel changes of inorganic chemistry in a macrophyte-dominated, softwater stream. Marine and Freshwater Research, 2005, 56, 1165.	0.7	14
60	Empirical Models for Disinfection By-Products in Lakes and Reservoirs. Journal of Environmental Engineering, ASCE, 1997, 123, 714-715.	0.7	13
61	Chloride and total phosphorus budgets for Green Bay, Lake Michigan. Journal of Great Lakes Research, 2013, 39, 420-428.	0.8	13
62	Modelâ€Based Nitrogen and Phosphorus (Nutrient) Criteria for Large Temperate Rivers: 1. Model Development and Application. Journal of the American Water Resources Association, 2015, 51, 421-446.	1.0	13
63	Transport and Retention of Concentrated Oil-in-Water Emulsions in Porous Media. Environmental Science & Technology, 2018, 52, 4256-4264.	4.6	12
64	Reply [to â€œComment on â€˜An efficient numerical solution of the transient storage equations for solute transport in small streamsâ€™ by R. L. Runkel and S. C. Chapraâ€]. Water Resources Research, 1994, 30, 2863-2865.	1.7	11
65	Modeling Effects of Sediment Diagenesis on Recovery of Hypolimnetic Oxygen. Journal of Environmental Engineering, ASCE, 2013, 139, 44-53.	0.7	11
66	Uncertainty and sensitivity analyses using GLUE when modeling inhibition and pharmaceutical cometabolism during nitrification. Environmental Modelling and Software, 2014, 60, 219-227.	1.9	11
67	Rubbish, Stink, and Death: The Historical Evolution, Present State, and Future Direction of Water-Quality Management and Modeling. Environmental Engineering Research, 2011, 16, 113-119.	1.5	11
68	MODELING TOC AND UV-254 ABSORBANCE FOR RESERVOIR PLANNING AND OPERATION. Journal of the American Water Resources Association, 2004, 40, 795-809.	1.0	10
69	Evidence from field measurements and satellite imaging of impact of Earth rotation on Lake Iseo chemistry. Journal of Great Lakes Research, 2018, 44, 14-25.	0.8	9
70	The canopy effect in filamentous algae: Improved modeling of Cladophora growth via a mechanistic representation of self-shading. Ecological Modelling, 2020, 418, 108906.	1.2	8
71	A budget model accounting for the positional availability of phosphorus in lakes. Water Research, 1982, 16, 205-209.	5.3	7
72	Calibration and application of a sediment accumulation rate model â€“ a case study. Inland Waters, 2012, 2, 23-36.	1.1	7

#	Article	IF	Citations
73	Optimal Location of Sediment-Trapping Best Management Practices for Nonpoint Source Load Management. Journal of Water Resources Planning and Management - ASCE, 2013, 139, 478-485.	1.3	7
74	Influence of biomass and water velocity on light attenuation of Cladophora glomerata L. (Kuetzing) in rivers. Aquatic Botany, 2018, 151, 62-70.	0.8	7
75	Response to the Letter, Nitrogen is Not a â€œHouse of Cardsâ€• Environmental Science & Technology, 2017, 51, 1943-1943.	4.6	6
76	Comparison of aquatic ecosystem functioning between eutrophic and hypereutrophic cold-region river-lake systems. Ecological Modelling, 2019, 393, 25-36.	1.2	6
77	Personal computers and environmental engineering Part I â€"Trends and perspectives. Environmental Science & Technology, 1987, 21, 832-837.	4.6	5
78	New hydroepidemiological models of indicator organisms and zoonotic pathogens in agricultural watersheds. Ecological Modelling, 2011, 222, 2093-2102.	1.2	5
79	â€œBack to the Futureâ€• Time for a Renaissance of Public Health Engineering. International Journal of Environmental Research and Public Health, 2019, 16, 387.	1.2	5
80	Steady-state distributed modeling of dissolved oxygen in data-poor, sewage dominated river systems using drainage networks. Environmental Modelling and Software, 2019, 111, 153-169.	1.9	4
81	Evaluating Hydraulic Habitat Suitability of Filamentous Algae Using an Unmanned Aerial Vehicle and Acoustic Doppler Current Profiler. Journal of Environmental Engineering, ASCE, 2020, 146, 04019126.	0.7	4
82	Nutrient Attenuation in Streams: A Simplified Model to Explain Field Observations. Journal of Environmental Engineering, ASCE, 2020, 146, .	0.7	4
83	Modelâ€Based Nitrogen and Phosphorus (Nutrient) Criteria for Large Temperate Rivers: 2. Criteria Derivation. Journal of the American Water Resources Association, 2015, 51, 447-470.	1.0	3
84	Decision Support Models for Assessing the Impact of Aquaculture on River Water Quality. Journal of Environmental Engineering, ASCE, 2016, 142, .	0.7	3
85	Comment on â€œThe effect of changes in the nutrient income on the condition of Lake Washingtonâ€• (Edmondson and Lehman). Limnology and Oceanography, 1983, 28, 792-795.	1.6	2
86	Numerical Efficiency in Monte Carlo Simulationsâ€"Case Study of a River Thermodynamic Model. Journal of Environmental Engineering, ASCE, 2004, 130, 456-464.	0.7	2
87	Load-Response Models for Establishing Site-Specific Nutrient Goals Based on Water Quality and Biological Response Indicators. Proceedings of the Water Environment Federation, 2013, 2013, 1614-1626.	0.0	2
88	Sed2K: Modeling Lake Sediment Diagenesis in a Management Context. Journal of Environmental Engineering, ASCE, 2015, 141, .	0.7	2
89	Dissolved phosphorus concentrations in Cayuga Lake system and differences from two analytical protocols. Lake and Reservoir Management, 2016, 32, 392-401.	0.4	2
90	Simulation of Terrigenous Minerogenic Particle Populations in Time and Space in Cayuga Lake, New York, in Response to Runoff Events. Water, Air, and Soil Pollution, 2016, 227, 1.	1.1	2

#	Article	IF	Citations
91	The Need for Simple Approaches for the Estimation of Lake Model Prediction Uncertainty. , 1983, , 293-303.		2
92	A Review Of The Research And Data Needs For Improving Load-Response Models In The Werf Nutrient Modeling Toolbox. Proceedings of the Water Environment Federation, 2014, 2014, 505-517.	0.0	1
93	Simulation of the Contribution of Phosphorus-Containing Minerogenic Particles to Particulate Phosphorus Concentration in Cayuga Lake, New York. Water, Air, and Soil Pollution, 2016, 227, 1.	1.1	1
94	Advances in River Water Quality Modelling and Management: Where We Come from, Where We Are, and Where Weâ€™re Going?. Green Energy and Technology, 2019, , 295-301.	0.4	1
95	Closure to â€œ Delta Method for Estimating Primary Production, Respiration, and Reaeration in Streams â€•by Steven C. Chapra and Dominic M. Di Toro (September/October, Vol. 117, No. 5). Journal of Environmental Engineering, ASCE, 1992, 118, 1007-1008.	0.7	0
96	Fate of environmental pollutants. Water Environment Research, 1992, 64, 581-593.	1.3	0
97	Wastewater Modification Processes in a Stabilization Reservoir: A New Mathematical Model. Green Energy and Technology, 2019, , 285-292.	0.4	0