Aalbert Jan Hendriks

List of Publications by Year
in descending order

128 papers	5,257 citations	109321 35 h-index	95266 68 g-index
128 all docs	128 docs citations	128 times ranked	6912 citing authors

#	Article	IF	Citations
1	A Review of the Effects of Multiple Stressors on Aquatic Organisms and Analysis of Uncertainty Factors for Use in Risk Assessment. Critical Reviews in Toxicology, 2001, 31, 247-284.	3.9	451
2	Is Cumulative Fossil Energy Demand a Useful Indicator for the Environmental Performance of Products?. Environmental Science & Technology, 2006, 40, 641-648.	10.0	356
3	Cumulative Energy Demand As Predictor for the Environmental Burden of Commodity Production. Environmental Science & Technology, 2010, 44, 2189-2196.	10.0	323
4	Cellular uptake of nanoparticles as determined by particle properties, experimental conditions, and cell type. Environmental Toxicology and Chemistry, 2014, 33, 481-492.	4.3	322
5	The toxicity of plastic nanoparticles to green algae as influenced by surface modification, medium hardness and cellular adsorption. Aquatic Toxicology, 2017, 183, 11-20.	4.0	298
6	Temperature-Dependent Effects of Cadmium onDaphnia magna:Â Accumulation versus Sensitivity. Environmental Science & Technology, 2003, 37, 2145-2151.	10.0	194
7	Ecological footprint accounting in the life cycle assessment of products. Ecological Economics, 2008, 64, 798-807.	5.7	180
8	Multimedia Modeling of Engineered Nanoparticles with SimpleBox4nano: Model Definition and Evaluation. Environmental Science & Technology, 2014, 48, 5726-5736.	10.0	169
9	Natural colloids are the dominant factor in the sedimentation of nanoparticles. Environmental Toxicology and Chemistry, 2012, 31, 1019-1022.	4.3	141
10	Oxygen limitation may affect the temperature and size dependence of metabolism in aquatic ectotherms. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 31963-31968.	7.1	115
11	Review of the partitioning of chemicals into different plastics: Consequences for the risk assessment of marine plastic debris. Marine Pollution Bulletin, 2016, 113, 17-24.	5.0	104
12	Urban drainage systems: An undervalued habitat for aquatic macroinvertebrates. Biological Conservation, 2009, 142, 1105-1115.	4.1	94
13	Development and application of the SSD approach in scientific case studies for ecological risk assessment. Environmental Toxicology and Chemistry, 2016, 35, 2149-2161.	4.3	77
14	Metal Bioaccumulation in Aquatic Species: Quantification of Uptake and Elimination Rate Constants Using Physicochemical Properties of Metals and Physiological Characteristics of Species. Environmental Science & Technology, 2008, 42, 852-858.	10.0	74
15	Critical Body Residues Linked to Octanolâ^'Water Partitioning, Organism Composition, and LC50QSARs:Â Meta-analysis and Model. Environmental Science & Technology, 2005, 39, 3226-3236.	10.0	71
16	Scaling of offspring number and mass to plant and animal size: model and meta-analysis. Oecologia, 2008, 155, 705-716.	2.0	69
17	The power of size: A meta-analysis reveals consistency of allometric regressions. Ecological Modelling, 2007, 205, 196-208.	2.5	68
18	Environmental contamination due to shale gas development. Science of the Total Environment, 2016, 550, 431-438.	8.0	67

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19	Power-Law Relationships for Estimating Mass, Fuel Consumption and Costs of Energy Conversion Equipments. Environmental Science & Technology, 2011, 45, 751-754.	10.0	56
20	Ecotoxicogenomics: Bridging the Gap between Genes and Populations. Environmental Science & Technology, 2010, 44, 4328-4333.	10.0	54
21	Responses in sediment bioassays used in the Netherlands: can observed toxicity be explained by routinely monitored priority pollutants?. Water Research, 2003, 37, 1691-1710.	11.3	53
22	Sensitivity of Polar and Temperate Marine Organisms to Oil Components. Environmental Science & Technology, 2011, 45, 9017-9023.	10.0	52
23	Stakeholder Value Orientations in Water Management. Society and Natural Resources, 2010, 23, 805-821.	1.9	48
24	Predicting effects of cations on copper toxicity to lettuce (<i>Lactuca sativa</i>) by the biotic ligand model. Environmental Toxicology and Chemistry, 2012, 31, 355-359.	4.3	45
25	Metal accumulation in the earthworm Lumbricus rubellus. Model predictions compared to field data. Environmental Pollution, 2007, 146, 428-436.	7.5	43
26	Species richnessâ€“phosphorus relationships for lakes and streams worldwide. Global Ecology and Biogeography, 2013, 22, 1304-1314.	5.8	42
27	The Variation in Slope of Concentrationâ€“Effect Relationships. Ecotoxicology and Environmental Safety, 2001, 48, 43-50.	6.0	41
28	Use of semi-permeable membrane devices and solid-phase extraction for the wide-range screening of microcontaminants in surface water by GC-AED/MS. Water Research, 2002, 36, 4455-4470.	11.3	41
29	Application of the tissue residue approach in ecological risk assessment. Integrated Environmental Assessment and Management, 2011, 7, 116-140.	2.9	41
30	Calcifying Species Sensitivity Distributions for Ocean Acidification. Environmental Science & Technology, 2015, 49, 1495-1500.	10.0	41
31	META-ANALYSIS OF INTRINSIC RATES OF INCREASE AND CARRYING CAPACITY OF POPULATIONS AFFECTED BY TOXIC AND OTHER STRESSORS. Environmental Toxicology and Chemistry, 2005, 24, 2267.	4.3	40
32	Modeling toxicity of binary metal mixtures (Cu²⁺â€“Ag⁺,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 227 Td (Cu<s Environmental Toxicology and Chemistry, 2013, 32, 137-143.	4.3	38
33	Effects of desiccation on native and nonâ€native molluscs in rivers. Freshwater Biology, 2014, 59, 41-55.	2.4	38
34	Surviving in Changing Seascapes: Sediment Dynamics as Bottleneck for Long-Term Seagrass Presence. Ecosystems, 2016, 19, 296-310.	3.4	38
35	Including Sorption to Black Carbon in Modeling Bioaccumulation of Polycyclic Aromatic Hydrocarbons:Â Uncertainty Analysis and Comparison to Field Data. Environmental Science & Technology, 2007, 41, 2738-2744.	10.0	37
36	Aboveground Herbivory Shapes the Biomass Distribution and Flux of Soil Invertebrates. PLoS ONE, 2008, 3, e3573.	2.5	37

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37	Half-saturation constants in functional responses. Global Ecology and Conservation, 2014, 2, 161-169.	2.1	37
38	Ranking ecological risks of multiple chemical stressors on amphibians. Environmental Toxicology and Chemistry, 2012, 31, 1416-1421.	4.3	36
39	Organotin accumulation in an estuarine food chain: Comparing field measurements with model estimations. Marine Environmental Research, 2006, 61, 511-530.	2.5	34
40	Integration of Biotic Ligand Models (BLM) and Bioaccumulation Kinetics into a Mechanistic Framework for Metal Uptake in Aquatic Organisms. Environmental Science & Technology, 2010, 44, 5022-5028.	10.0	34
41	Alternative Stable States Driven by Density-Dependent Toxicity. Ecosystems, 2010, 13, 841-850.	3.4	33
42	Comparing the ecological footprint with the biodiversity footprint of products. Journal of Cleaner Production, 2012, 37, 107-114.	9.3	33
43	How To Deal with 100,000+ Substances, Sites, and Species: Overarching Principles in Environmental Risk Assessment. Environmental Science & Technology, 2013, 47, 3546-3547.	10.0	33
44	Eco-SpaCE: An object-oriented, spatially explicit model to assess the risk of multiple environmental stressors on terrestrial vertebrate populations. Science of the Total Environment, 2010, 408, 3908-3917.	8.0	30
45	Modeling Decreased Food Chain Accumulation of PAHs Due to Strong Sorption to Carbonaceous Materials and Metabolic Transformation. Environmental Science & Technology, 2007, 41, 6185-6191.	10.0	29
46	How allometric scaling relates to soil abiotics. Oikos, 2011, 120, 529-536.	2.7	29
47	Environmental exposure assessment of engineered nanoparticles: Why REACH needs adjustment. Integrated Environmental Assessment and Management, 2013, 9, e15-26.	2.9	28
48	A QICAR approach for quantifying binding constants for metalâ€“ligand complexes. Ecotoxicology and Environmental Safety, 2011, 74, 1036-1042.	6.0	27
49	Towards a coherent allometric framework for individual home ranges, key population patches and geographic ranges. Ecography, 2009, 32, 929-942.	4.5	26
50	Chemical fate of persistent organic pollutants in the arctic: Evaluation of simplebox. Science of the Total Environment, 2020, 720, 137579.	8.0	25
51	Size relationships of water discharge in rivers: scaling of discharge with catchment area, mainâ€stem length and precipitation. Hydrological Processes, 2014, 28, 5769-5775.	2.6	24
52	Quantitative structureâ€“activity relationships for primary aerobic biodegradation of organic chemicals in pristine surface waters: starting points for predicting biodegradation under acclimatization. Environmental Sciences: Processes and Impacts, 2018, 20, 157-170.	3.5	21
53	Characterisation factors for greenhouse gases at a midpoint level including indirect effects based on calculations with the IMAGE model. International Journal of Life Cycle Assessment, 2008, 13, 191-201.	4.7	20
54	Parameter uncertainty in modeling bioaccumulation factors of fish. Environmental Toxicology and Chemistry, 2011, 30, 403-412.	4.3	20

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55	Toxicokinetic Toxicodynamic (TKTD) Modeling of Ag Toxicity in Freshwater Organisms: Whole-Body Sodium Loss Predicts Acute Mortality Across Aquatic Species. Environmental Science & Technology, 2014, 48, 14481-14489.	10.0	20
56	A dominance shift from the zebra mussel to the invasive quagga mussel may alter the trophic transfer of metals. Environmental Pollution, 2015, 203, 183-190.	7.5	20
57	A new twist on an old regression: Transfer of chemicals to beef and milk in human and ecological risk assessment. Chemosphere, 2007, 70, 46-56.	8.2	19
58	Cadmium bioaccumulation factors for terrestrial species: Application of the mechanistic bioaccumulation model OMEGA to explain field data. Science of the Total Environment, 2008, 406, 413-418.	8.0	19
59	Modeling metal bioaccumulation in the invasive mussels Dreissena polymorpha and Dreissena rostriformis bugensis in the rivers Rhine and Meuse. Environmental Toxicology and Chemistry, 2011, 30, 2825-2830.	4.3	19
60	Modelling bioaccumulation of oil constituents in aquatic species. Marine Pollution Bulletin, 2013, 76, 178-186.	5.0	19
61	Developing and testing a global-scale regression model to quantify mean annual streamflow. Journal of Hydrology, 2017, 544, 479-487.	5.4	19
62	Disentanglement of the chemical, physical, and biological processes aids the development of quantitative structure-biodegradation relationships for aerobic wastewater treatment. Science of the Total Environment, 2020, 708, 133863.	8.0	19
63	ESTIMATING BIOCONCENTRATION FACTORS, LETHAL CONCENTRATIONS AND CRITICAL BODY RESIDUES OF METALS IN THE MOLLUSKS PERNA VIRIDIS AND MYTILUS EDULIS USING ION CHARACTERISTICS. Environmental Toxicology and Chemistry, 2008, 27, 272.	4.3	18
64	Predicting the oral uptake efficiency of chemicals in mammals: Combining the hydrophilic and lipophilic range. Toxicology and Applied Pharmacology, 2013, 266, 150-156.	2.8	18
65	The utilisation of structural descriptors to predict metabolic constants of xenobiotics in mammals. Environmental Toxicology and Pharmacology, 2015, 39, 247-258.	4.0	18
66	Confronting variability with uncertainty in the ecotoxicological impact assessment of down-the-drain products. Environment International, 2019, 126, 37-45.	10.0	18
67	Sensitivity of species to chemicals: Doseâ€“response characteristics for various test types (LC50, LR50) Tj ETQq1 1 0.784314 rgBT /O	6.0	17
68	A semiâ€empirical model for transport of inorganic nanoparticles across a lipid bilayer: Implications for uptake by living cells. Environmental Toxicology and Chemistry, 2015, 34, 488-496.	4.3	17
69	Bioaccumulation potential of air contaminants: Combining biological allometry, chemical equilibrium and mass-balances to predict accumulation of air pollutants in various mammals. Toxicology and Applied Pharmacology, 2009, 238, 47-55.	2.8	16
70	Using datasets of different taxonomic detail to assess the influence of floodplain characteristics on terrestrial arthropod assemblages. Biodiversity and Conservation, 2010, 19, 2087-2110.	2.6	16
71	QSARs for estimating intrinsic hepatic clearance of organic chemicals in humans. Environmental Toxicology and Pharmacology, 2016, 42, 190-197.	4.0	16
72	Effects of a drought period on physico-chemical surface water quality in a regional catchment area. Journal of Environmental Monitoring, 2009, 11, 1298.	2.1	15

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73	The distribution of a threatened migratory bird species in a patchy landscape: a multi-scale analysis. Landscape Ecology, 2011, 26, 397-410.	4.2	15
74	Modelling interactions of toxicants and density dependence in wildlife populations. Journal of Applied Ecology, 2013, 50, 1469-1478.	4.0	15
75	Modeled and monitored variation in space and time of PCB-153 concentrations in air, sediment, soil and aquatic biota on a European scale. Science of the Total Environment, 2010, 408, 3831-3839.	8.0	14
76	Modelling the impact of toxic and disturbance stress on white-tailed eagle (Haliaeetus albicilla) populations. Ecotoxicology, 2012, 21, 27-36.	2.4	14
77	Evaluation of models capacity to predict size spectra parameters in ecosystems under stress. Ecological Indicators, 2017, 79, 114-121.	6.3	14
78	Reliable and representative in silico predictions of freshwater ecotoxicological hazardous concentrations. Environment International, 2020, 134, 105334.	10.0	14
79	Size relationships of water inflow into lakes: Empirical regressions suggest geometric scaling. Journal of Hydrology, 2012, 414-415, 482-490.	5.4	13
80	MODELING TOXIC STRESS BY ATRAZINE IN A MARINE CONSUMERâ€RESOURCE SYSTEM. Environmental Toxicology and Chemistry, 2013, 32, 1088-1095.	4.3	13
81	Rewilding the Sea with Domesticated Seagrass. BioScience, 2021, 71, 1171-1178.	4.9	13
82	Delayed logistic and Rosenzweigâ€“MacArthur models with allometric parameter setting estimate population cycles at lower trophic levels well. Ecological Complexity, 2012, 9, 43-54.	2.9	12
83	Evaluating the contribution of ingested oil droplets to the bioaccumulation of oil components â€" A modeling approach. Science of the Total Environment, 2014, 499, 99-106.	8.0	12
84	Development of a PBPK Model for Silver Accumulation in Chub Infected with Acanthocephalan Parasites. Environmental Science & Technology, 2018, 52, 12514-12525.	10.0	12
85	Internal and Maternal Distribution of Persistent Organic Pollutants in Sea Turtle Tissues: A Meta-Analysis. Environmental Science & Technology, 2021, 55, 10012-10024.	10.0	12
86	A Generalized Physiologically Based Kinetic Model for Fish for Environmental Risk Assessment of Pharmaceuticals. Environmental Science & Technology, 2022, 56, 6500-6510.	10.0	12
87	Multimetal accumulation in crustaceans in surface water related to body size and water chemistry. Environmental Toxicology and Chemistry, 2012, 31, 2269-2280.	4.3	11
88	Development and Validation of a Biodynamic Model for Mechanistically Predicting Metal Accumulation in Fish-Parasite Systems. PLoS ONE, 2016, 11, e0161091.	2.5	11
89	Towards an ecosystem service-based method to quantify the filtration services of mussels under chemical exposure. Science of the Total Environment, 2021, 763, 144196.	8.0	11
90	Do initial concentration and activated sludge seasonality affect pharmaceutical biotransformation rate constants?. Applied Microbiology and Biotechnology, 2021, 105, 6515-6527.	3.6	11

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91	Dropping the microbead: Source and sink related microplastic distribution in the Black Sea and Caspian Sea basins. Marine Pollution Bulletin, 2021, 173, 112982.	5.0	11
92	The impact of an additional ecotoxicity test on ecological quality standards. Ecotoxicology and Environmental Safety, 2009, 72, 2037-2045.	6.0	10
93	Modeling the Impacts of Multiple Environmental Stress Factors on Estuarine Copepod Populations. Environmental Science & Technology, 2014, 48, 5709-5717.	10.0	10
94	Uncertainties associated with lacking data for predictions of solid-solution partitioning of metals in soil. Science of the Total Environment, 2014, 490, 44-49.	8.0	10
95	Dietary Toxicity Thresholds and Ecological Risks for Birds and Mammals Based on Species Sensitivity Distributions. Environmental Science & Technology, 2016, 50, 10644-10652.	10.0	10
96	Modelling copper toxicokinetics in the zebra mussel, Dreissena polymorpha, under chronic exposures at various pH and sodium concentrations. Chemosphere, 2021, 267, 129278.	8.2	10
97	Comparison of three fish bioaccumulation models for ecological and human risk assessment and validation with field data. SAR and QSAR in Environmental Research, 2005, 16, 483-493.	2.2	9
98	Including ecotoxic impacts on warmâ€blooded predators in life cycle impact assessment. Integrated Environmental Assessment and Management, 2012, 8, 372-378.	2.9	9
99	Mechanistically-based QSARs to Describe Metabolic Constants in Mammals. ATLA Alternatives To Laboratory Animals, 2014, 42, 59-69.	1.0	8
100	Delineating ionâ€ion interactions by electrostatic modeling for predicting rhizotoxicity of metal mixtures to lettuce Lactuca sativa. Environmental Toxicology and Chemistry, 2014, 33, 1988-1995.	4.3	8
101	Implications of Trophic Variability for Modeling Biomagnification of POPs in Marine Food Webs in the Svalbard Archipelago. Environmental Science & Technology, 2020, 54, 4026-4035.	10.0	8
102	Modelling chronic toxicokinetics and toxicodynamics of copper in mussels considering ionoregulatory homeostasis and oxidative stress. Environmental Pollution, 2021, 287, 117645.	7.5	8
103	Compound Lipophilicity as a Descriptor to Predict Binding Affinity (1/K_m) in Mammals. Environmental Science & Technology, 2012, 46, 5168-5174.	10.0	7
104	Sensitivity of native and alien freshwater bivalve species in Europe to climateâ€related environmental factors. Ecosphere, 2018, 9, e02184.	2.2	7
105	Mean Species Abundance as a Measure of Ecotoxicological Risk. Environmental Toxicology and Chemistry, 2020, 39, 2304-2313.	4.3	7
106	A generic model based on the properties of nanoparticles and cells for predicting cellular uptake. Colloids and Surfaces B: Biointerfaces, 2022, 209, 112155.	5.0	7
107	Ibuprofen exposure in Europe; ePiE as an alternative to costly environmental monitoring. Environmental Research, 2022, 209, 112777.	7.5	7
108	Statistical uncertainty in hazardous terrestrial concentrations estimated with aquatic ecotoxicity data. Chemosphere, 2013, 93, 366-372.	8.2	6

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109	Crude oil affecting the biomass of the marine copepod Calanus finmarchicus: Comparing a simple and complex population model. Marine Environmental Research, 2016, 119, 197-206.	2.5	6
110	Deriving Field-Based Ecological Risks for Bird Species. Environmental Science & Technology, 2018, 52, 3716-3726.	10.0	6
111	Diagnosis of Basal Cell Carcinoma by Reflectance Confocal Microscopy: Study Design and Protocol of a Randomized Controlled Multicenter Trial. JMIR Research Protocols, 2016, 5, e114.	1.0	6
112	Timeâ€varying effects of aromatic oil constituents on the survival of aquatic species: Deviations between model estimates and observations. Environmental Toxicology and Chemistry, 2017, 36, 128-136.	4.3	5
113	Relating plant height to demographic rates and extinction vulnerability. Biological Conservation, 2018, 220, 104-111.	4.1	5
114	Mechanistic simulation of bioconcentration kinetics of waterborne Cd, Ag, Pd, and Pt in the zebra mussel Dreissena polymorpha. Chemosphere, 2020, 242, 124967.	8.2	5
115	Bioconcentration of Organotin Cations during Molting Inhibits Heterocypris incongruens Growth. Environmental Science & Technology, 2020, 54, 14288-14301.	10.0	5
116	Variability in nitrogen-derived trophic levels of Arctic marine biota. Polar Biology, 2021, 44, 119-131.	1.2	5
117	The importance of over-the-counter-sales and product format in the environmental exposure assessment of active pharmaceutical ingredients. Science of the Total Environment, 2021, 752, 141624.	8.0	4
118	Delineation of the exposure-response causality chain of chronic copper toxicity to the zebra mussel, Dreissena polymorpha, with a TK-TD model based on concepts of biotic ligand model and subcellular metal partitioning model. Chemosphere, 2022, 286, 131930.	8.2	4
119	Development of a toxicokinetic-toxicodynamic model simulating chronic copper toxicity to the Zebra mussel based on subcellular fractionation. Aquatic Toxicology, 2021, 241, 106015.	4.0	4
120	Thermochemical unification of molecular descriptors to predict radical hydrogen abstraction with low computational cost. Physical Chemistry Chemical Physics, 2020, 22, 23215-23225.	2.8	4
121	Relationships between absorption efficiency of elements in mammals and chemical properties. Critical Reviews in Toxicology, 2013, 43, 800-809.	3.9	3
122	Experimental and Theoretical Studies in the EU FP7 Marie Curie Initial Training Network Project, Environmental ChemOinformatics (ECO). ATLA Alternatives To Laboratory Animals, 2014, 42, 7-11.	1.0	3
123	Including carrier-mediated transport in oral uptake prediction of nutrients and pharmaceuticals in humans. Environmental Toxicology and Pharmacology, 2014, 38, 938-947.	4.0	3
124	Simulating changes in polar bear subpopulation growth rate due to legacy persistent organic pollutants â€“ Temporal and spatial trends. Science of the Total Environment, 2021, 754, 142380.	8.0	3
125	Response to Comment on â€œEcotoxicogenomics: Bridging the Gap between Genes and Populationsâ€. Environmental Science & Technology, 2010, 44, 9241-9241.	10.0	2
126	Stoichiometric ratios for biotics and xenobiotics capture effective metabolic coupling to re(de)fine biodegradation. Water Research, 2022, 217, 118333.	11.3	2

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127	Dreissenidsâ€™ breaking loose: differential attachment as a possible driver of the dominance shift between two invasive mussel species. Biological Invasions, 2021, 23, 2125-2141.	2.4	1
128	In response to â€œAn allometric tragedy of the commons: Response to the article â€˜Evaluation of models capacity to predict size spectra parameters in ecosystems under stressâ€™â€•. Ecological Indicators, 2019, 96, 747-749.	6.3	0