Aalbert Jan Hendriks

List of Publications by Citations

128 papers	4,123 citations	33 h-index	61 g-index
128 ext. papers	4,678 ext. citations	6.7 avg, IF	5.53 L-index

#	Paper	IF	Citations
128	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, 247-84	5.7	387
127	Is cumulative fossil energy demand a useful indicator for the environmental performance of products?. *Environmental Science & Technology*, **2006**, 40, 641-8	10.3	300
126	Cumulative energy demand as predictor for the environmental burden of commodity production. *Environmental Science & Technology*, **2010**, 44, 2189-96	10.3	268
125	Cellular uptake of nanoparticles as determined by particle properties, experimental conditions, and cell type. *Environmental Toxicology and Chemistry*, **2014**, 33, 481-92	3.8	246
124	The toxicity of plastic nanoparticles to green algae as influenced by surface modification, medium hardness and cellular adsorption. *Aquatic Toxicology*, **2017**, 183, 11-20	5.1	176
123	Temperature-dependent effects of cadmium on Daphnia magna: accumulation versus sensitivity. *Environmental Science & Technology*, **2003**, 37, 2145-51	10.3	162
122	Ecological footprint accounting in the life cycle assessment of products. *Ecological Economics*, **2008**, 64, 798-807	5.6	150
121	Multimedia modeling of engineered nanoparticles with SimpleBox4nano: model definition and evaluation. *Environmental Science & Technology*, **2014**, 48, 5726-36	10.3	146
120	Natural colloids are the dominant factor in the sedimentation of nanoparticles. *Environmental Toxicology and Chemistry*, **2012**, 31, 1019-22	3.8	124
119	Urban drainage systems: An undervalued habitat for aquatic macroinvertebrates. *Biological Conservation*, **2009**, 142, 1105-1115	6.2	78
118	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	6.7	76
117	Critical body residues linked to octanol-water partitioning, organism composition, and LC50 QSARs: meta-analysis and model. *Environmental Science & Technology*, **2005**, 39, 3226-36	10.3	66
116	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, 852-8	10.3	62
115	Scaling of offspring number and mass to plant and animal size: model and meta-analysis. *Oecologia*, **2008**, 155, 705-16	2.9	62
114	Environmental contamination due to shale gas development. *Science of the Total Environment*, **2016**, 550, 431-438	10.2	59
113	The power of size: A meta-analysis reveals consistency of allometric regressions. *Ecological Modelling*, **2007**, 205, 196-208	3	56
112	Ecotoxicogenomics: bridging the gap between genes and populations. *Environmental Science & Technology*, **2010**, 44, 4328-33	10.3	51

111	Sensitivity of polar and temperate marine organisms to oil components. *Environmental Science & Technology*, **2011**, 45, 9017-23	10.3	50
110	Responses in sediment bioassays used in the Netherlands: can observed toxicity be explained by routinely monitored priority pollutants?. *Water Research*, **2003**, 37, 1691-710	12.5	50
109	Power-law relationships for estimating mass, fuel consumption and costs of energy conversion equipments. *Environmental Science & Technology*, **2011**, 45, 751-4	10.3	43
108	Development and application of the SSD approach in scientific case studies for ecological risk assessment. *Environmental Toxicology and Chemistry*, **2016**, 35, 2149-61	3.8	42
107	Predicting effects of cations on copper toxicity to lettuce (Lactuca sativa) by the biotic ligand model. *Environmental Toxicology and Chemistry*, **2012**, 31, 355-9	3.8	42
106	Metal accumulation in the earthworm Lumbricus rubellus. Model predictions compared to field data. *Environmental Pollution*, **2007**, 146, 428-36	9.3	39
105	Species richness□hosphorus relationships for lakes and streams worldwide. *Global Ecology and Biogeography*, **2013**, 22, 1304-1314	6.1	36
104	Application of the tissue residue approach in ecological risk assessment. *Integrated Environmental Assessment and Management*, **2011**, 7, 116-40	2.5	36
103	Modeling toxicity of binary metal mixtures (Cu(2+) -Ag(+) , Cu(2+) -Zn(2+)) to lettuce, Lactuca sativa, with the biotic ligand model. *Environmental Toxicology and Chemistry*, **2013**, 32, 137-43	3.8	35
102	Stakeholder Value Orientations in Water Management. *Society and Natural Resources*, **2010**, 23, 805-821	2.4	35
101	Meta-analysis of intrinsic rates of increase and carrying capacity of populations affected by toxic and other stressors. *Environmental Toxicology and Chemistry*, **2005**, 24, 2267-77	3.8	35
100	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, 4455-70	12.5	35
99	Including sorption to black carbon in modeling bioaccumulation of polycyclic aromatic hydrocarbons: uncertainty analysis and comparison to field data. *Environmental Science & Technology*, **2007**, 41, 2738-44	10.3	34
98	The variation in slope of concentration-effect relationships. *Ecotoxicology and Environmental Safety* , **2001**, 48, 43-50	7	34
97	Calcifying species sensitivity distributions for ocean acidification. *Environmental Science & Technology*, **2015**, 49, 1495-500	10.3	33
96	Aboveground herbivory shapes the biomass distribution and flux of soil invertebrates. *PLoS ONE*, **2008**, 3, e3573	3.7	33
95	Effects of desiccation on native and non-native molluscs in rivers. *Freshwater Biology*, **2014**, 59, 41-55	3.1	29
94	Ranking ecological risks of multiple chemical stressors on amphibians. *Environmental Toxicology and Chemistry*, **2012**, 31, 1416-21	3.8	29

93	Integration of biotic ligand models (BLM) and bioaccumulation kinetics into a mechanistic framework for metal uptake in aquatic organisms. *Environmental Science & Technology*, **2010**, 44, 5022-8	10.3	29
92	Organotin accumulation in an estuarine food chain: comparing field measurements with model estimations. *Marine Environmental Research*, **2006**, 61, 511-30	3.3	29
91	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	11.5	29
90	How to deal with 100,000+ substances, sites, and species: overarching principles in environmental risk assessment. *Environmental Science & Technology*, **2013**, 47, 3546-7	10.3	28
89	Alternative Stable States Driven by Density-Dependent Toxicity. *Ecosystems*, **2010**, 13, 841-850	3.9	28
88	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, 3908-17	10.2	28
87	Environmental exposure assessment of engineered nanoparticles: why REACH needs adjustment. *Integrated Environmental Assessment and Management*, **2013**, 9, e15-26	2.5	27
86	How allometric scaling relates to soil abiotics. *Oikos*, **2011**, 120, 529-536	4	27
85	Modeling decreased food chain accumulation of PAHs due to strong sorption to carbonaceous materials and metabolic transformation. *Environmental Science & Technology*, **2007**, 41, 6185-91	10.3	27
84	Surviving in Changing Seascapes: Sediment Dynamics as Bottleneck for Long-Term Seagrass Presence. *Ecosystems*, **2016**, 19, 296-310	3.9	26
83	Comparing the ecological footprint with the biodiversity footprint of products. *Journal of Cleaner Production*, **2012**, 37, 107-114	10.3	25
82	A QICAR approach for quantifying binding constants for metal-ligand complexes. *Ecotoxicology and Environmental Safety*, **2011**, 74, 1036-42	7	24
81	Half-saturation constants in functional responses. *Global Ecology and Conservation*, **2014**, 2, 161-169	2.8	23
80	Towards a coherent allometric framework for individual home ranges, key population patches and geographic ranges. *Ecography*, **2009**, 32, 929-942	6.5	22
79	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	4.6	19
78	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, 14481-9	10.3	18
77	Parameter uncertainty in modeling bioaccumulation factors of fish. *Environmental Toxicology and Chemistry*, **2011**, 30, 403-12	3.8	17
76	Cadmium bioaccumulation factors for terrestrial species: application of the mechanistic bioaccumulation model OMEGA to explain field data. *Science of the Total Environment*, **2008**, 406, 413-8	10.2	17

75	Size relationships of water discharge in rivers: scaling of discharge with catchment area, main-stem length and precipitation. *Hydrological Processes*, **2014**, 28, 5769-5775	3.3	16
74	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, 272-6	3.8	16
73	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	8.4	16
72	Quantitative structure-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	4.3	16
71	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, 2825-30	3.8	15
70	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	4.6	15
69	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	9.3	14
68	A semi-empirical model for transport of inorganic nanoparticles across a lipid bilayer: implications for uptake by living cells. *Environmental Toxicology and Chemistry*, **2015**, 34, 488-96	3.8	14
67	The utilisation of structural descriptors to predict metabolic constants of xenobiotics in mammals. *Environmental Toxicology and Pharmacology*, **2015**, 39, 247-58	5.8	14
66	Sensitivity of species to chemicals: dose-response characteristics for various test types (LC(50), LR(50) and LD(50)) and modes of action. *Ecotoxicology and Environmental Safety*, **2013**, 97, 10-6	7	14
65	Modelling bioaccumulation of oil constituents in aquatic species. *Marine Pollution Bulletin*, **2013**, 76, 178-86	6.7	14
64	Predicting the oral uptake efficiency of chemicals in mammals: combining the hydrophilic and lipophilic range. *Toxicology and Applied Pharmacology*, **2013**, 266, 150-6	4.6	14
63	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	10.2	14
62	Developing and testing a global-scale regression model to quantify mean annual streamflow. *Journal of Hydrology*, **2017**, 544, 479-487	6	13
61	Using datasets of different taxonomic detail to assess the influence of floodplain characteristics on terrestrial arthropod assemblages. *Biodiversity and Conservation*, **2010**, 19, 2087-2110	3.4	13
60	Modelling interactions of toxicants and density dependence in wildlife populations. *Journal of Applied Ecology*, **2013**, 50, 1469-1478	5.8	12
59	The distribution of a threatened migratory bird species in a patchy landscape: a multi-scale analysis. *Landscape Ecology*, **2011**, 26, 397-410	4.3	12
58	Effects of a drought period on physico-chemical surface water quality in a regional catchment area. *Journal of Environmental Monitoring*, **2009**, 11, 1298-302		12

57	Confronting variability with uncertainty in the ecotoxicological impact assessment of down-the-drain products. *Environment International*, **2019**, 126, 37-45	12.9	11
56	QSARs for estimating intrinsic hepatic clearance of organic chemicals in humans. *Environmental Toxicology and Pharmacology*, **2016**, 42, 190-7	5.8	11
55	Size relationships of water inflow into lakes: Empirical regressions suggest geometric scaling. *Journal of Hydrology*, **2012**, 414-415, 482-490	6	11
54	Modelling the impact of toxic and disturbance stress on white-tailed eagle (Haliaeetus albicilla) populations. *Ecotoxicology*, **2012**, 21, 27-36	2.9	11
53	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, 3831-9	10.2	11
52	Evaluation of models capacity to predict size spectra parameters in ecosystems under stress. *Ecological Indicators*, **2017**, 79, 114-121	5.8	10
51	Delayed logistic and RosenzweigMacArthur models with allometric parameter setting estimate population cycles at lower trophic levels well. *Ecological Complexity*, **2012**, 9, 43-54	2.6	10
50	Modeling toxic stress by atrazine in a marine consumer-resource system. *Environmental Toxicology and Chemistry*, **2013**, 32, 1088-95	3.8	10
49	Evaluating the contribution of ingested oil droplets to the bioaccumulation of oil components--a modeling approach. *Science of the Total Environment*, **2014**, 499, 99-106	10.2	9
48	Including ecotoxic impacts on warm-blooded predators in life cycle impact assessment. *Integrated Environmental Assessment and Management*, **2012**, 8, 372-8	2.5	9
47	Development of a PBPK Model for Silver Accumulation in Chub Infected with Acanthocephalan Parasites. *Environmental Science & Technology*, **2018**, 52, 12514-12525	10.3	9
46	Chemical fate of persistent organic pollutants in the arctic: Evaluation of simplebox. *Science of the Total Environment*, **2020**, 720, 137579	10.2	8
45	Modeling the impacts of multiple environmental stress factors on estuarine copepod populations. *Environmental Science & Technology*, **2014**, 48, 5709-17	10.3	8
44	Uncertainties associated with lacking data for predictions of solid-solution partitioning of metals in soil. *Science of the Total Environment*, **2014**, 490, 44-9	10.2	8
43	Delineating ion-ion interactions by electrostatic modeling for predicting rhizotoxicity of metal mixtures to lettuce Lactuca sativa. *Environmental Toxicology and Chemistry*, **2014**, 33, 1988-95	3.8	8
42	Multimetal accumulation in crustaceans in surface water related to body size and water chemistry. *Environmental Toxicology and Chemistry*, **2012**, 31, 2269-80	3.8	8
41	The impact of an additional ecotoxicity test on ecological quality standards. *Ecotoxicology and Environmental Safety*, **2009**, 72, 2037-45	7	8
40	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, 483-93	3.5	8

39	Development and Validation of a Biodynamic Model for Mechanistically Predicting Metal Accumulation in Fish-Parasite Systems. *PLoS ONE*, **2016**, 11, e0161091	3.7	8
38	Mechanistically-based QSARs to describe metabolic constants in mammals. *ATLA Alternatives To Laboratory Animals*, **2014**, 42, 59-69	2.1	7
37	Compound lipophilicity as a descriptor to predict binding affinity (1/K(m)) in mammals. *Environmental Science & Technology*, **2012**, 46, 5168-74	10.3	7
36	Dietary Toxicity Thresholds and Ecological Risks for Birds and Mammals Based on Species Sensitivity Distributions. *Environmental Science & Technology*, **2016**, 50, 10644-10652	10.3	7
35	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	2	6
34	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	3.3	6
33	Modelling copper toxicokinetics in the zebra mussel, Dreissena polymorpha, under chronic exposures at various pH and sodium concentrations. *Chemosphere*, **2021**, 267, 129278	8.4	6
32	Reliable and representative in silico predictions of freshwater ecotoxicological hazardous concentrations. *Environment International*, **2020**, 134, 105334	12.9	5
31	Modelling chronic toxicokinetics and toxicodynamics of copper in mussels considering ionoregulatory homeostasis and oxidative stress. *Environmental Pollution*, **2021**, 287, 117645	9.3	5
30	Time-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	3.8	4
29	Deriving Field-Based Ecological Risks for Bird Species. *Environmental Science & Technology*, **2018**, 52, 3716-3726	10.3	4
28	Sensitivity of native and alien freshwater bivalve species in Europe to climate-related environmental factors. *Ecosphere*, **2018**, 9, e02184	3.1	4
27	Statistical uncertainty in hazardous terrestrial concentrations estimated with aquatic ecotoxicity data. *Chemosphere*, **2013**, 93, 366-72	8.4	4
26	Mechanistic simulation of bioconcentration kinetics of waterborne Cd, Ag, Pd, and Pt in the zebra mussel Dreissena polymorpha. *Chemosphere*, **2020**, 242, 124967	8.4	4
25	Implications of Trophic Variability for Modeling Biomagnification of POPs in Marine Food Webs in the Svalbard Archipelago. *Environmental Science & Technology*, **2020**, 54, 4026-4035	10.3	3
24	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	2.1	3
23	Mean Species Abundance as a Measure of Ecotoxicological Risk. *Environmental Toxicology and Chemistry*, **2020**, 39, 2304-2313	3.8	3
22	Do initial concentration and activated sludge seasonality affect pharmaceutical biotransformation rate constants?. *Applied Microbiology and Biotechnology*, **2021**, 105, 6515-6527	5.7	3

21	Relating plant height to demographic rates and extinction vulnerability. *Biological Conservation*, **2018**, 220, 104-111	6.2	2
20	Including carrier-mediated transport in oral uptake prediction of nutrients and pharmaceuticals in humans. *Environmental Toxicology and Pharmacology*, **2014**, 38, 938-47	5.8	2
19	Relationships between absorption efficiency of elements in mammals and chemical properties. *Critical Reviews in Toxicology*, **2013**, 43, 800-9	5.7	2
18	Response to Comment on Ecotoxicogenomics: Bridging the Gap between Genes and Populations *Environmental Science & Technology*, **2010**, 44, 9241-9241	10.3	2
17	Thermochemical unification of molecular descriptors to predict radical hydrogen abstraction with low computational cost. *Physical Chemistry Chemical Physics*, **2020**, 22, 23215-23225	3.6	2
16	Dropping the microbead: Source and sink related microplastic distribution in the Black Sea and Caspian Sea basins. *Marine Pollution Bulletin*, **2021**, 173, 112982	6.7	2
15	Variability in nitrogen-derived trophic levels of Arctic marine biota. *Polar Biology*, **2021**, 44, 119-131	2	2
14	Bioconcentration of Organotin Cations during Molting Inhibits Growth. *Environmental Science & Technology*, **2020**, 54, 14288-14301	10.3	2
13	Towards an ecosystem service-based method to quantify the filtration services of mussels under chemical exposure. *Science of the Total Environment*, **2021**, 763, 144196	10.2	2
12	Internal and Maternal Distribution of Persistent Organic Pollutants in Sea Turtle Tissues: A Meta-Analysis. *Environmental Science & Technology*, **2021**, 55, 10012-10024	10.3	2
11	Simulating changes in polar bear subpopulation growth rate due to legacy persistent organic pollutants - Temporal and spatial trends. *Science of the Total Environment*, **2021**, 754, 142380	10.2	2
10	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	10.2	2
9	Ibuprofen exposure in Europe; ePiE as an alternative to costly environmental monitoring.. *Environmental Research*, **2022**, 209, 112777	7.9	1
8	Development of a toxicokinetic-toxicodynamic model simulating chronic copper toxicity to the Zebra mussel based on subcellular fractionation. *Aquatic Toxicology*, **2021**, 241, 106015	5.1	1
7	Dreissenids breaking loose: differential attachment as a possible driver of the dominance shift between two invasive mussel species. *Biological Invasions*, **2021**, 23, 2125-2141	2.7	1
6	Rewilding the Sea with Domesticated Seagrass. *BioScience*, **2021**, 71, 1171-1178	5.7	1
5	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	8.4	1
4	A Generalized Physiologically Based Kinetic Model for Fish for Environmental Risk Assessment of Pharmaceuticals.. *Environmental Science & Technology*, **2022**, 56, 6500-6510	10.3	1

3	A generic model based on the properties of nanoparticles and cells for predicting cellular uptake. *Colloids and Surfaces B: Biointerfaces*, **2022**, 209, 112155	6	0
2	In response to "An allometric tragedy of the commons: Response to the article "Evaluation of models capacity to predict size spectra parameters in ecosystems under stress" *Ecological Indicators*, **2019**, 96, 747-749	5.8	
1	Stoichiometric ratios for biotics and xenobiotics capture effective metabolic coupling to re(de)fine biodegradation.. *Water Research*, **2022**, 217, 118333	12.5	