David J Spurgeon

List of Publications by Year
in descending order

123 papers	10,216 citations	38742 50 h-index	34986 98 g-index
126 all docs	126 docs citations	126 times ranked	10221 citing authors

#	Article	IF	Citations
1	Longâ€term cattle grazing shifts the ecological state of forest soils. Ecology and Evolution, 2022, 12, e8786.	1.9	3
2	Accumulation of nylon microplastics and polybrominated diphenyl ethers and effects on gut microbial community of Chironomus sancticaroli. Science of the Total Environment, 2022, 832, 155089.	8.0	17
3	Worst-case ranking of organic chemicals detected in groundwaters and surface waters in England. Science of the Total Environment, 2022, 835, 155101.	8.0	22
4	Impacts of Life-Time Exposure of Arsenic, Cadmium and Fluoranthene on the Earthwormsâ€™ L. rubellus Global DNA Methylation as Detected by msAFLP. Genes, 2022, 13, 770.	2.4	3
5	Proportional contributions to organic chemical mixture effects in groundwater and surface water. Water Research, 2022, 220, 118641.	11.3	6
6	How to analyse and account for interactions in mixture toxicity with toxicokinetic-toxicodynamic models. Science of the Total Environment, 2022, 843, 157048.	8.0	18
7	Chemicals with increasingly complex modes of action result in greater variation in sensitivity between earthworm species. Environmental Pollution, 2021, 272, 115914.	7.5	12
8	Mechanistic Effect Modeling of Earthworms in the Context of Pesticide Risk Assessment: Synthesis of the FORESEE Workshop. Integrated Environmental Assessment and Management, 2021, 17, 352-363.	2.9	18
9	Predicting Mixture Effects over Time with Toxicokineticâ€“Toxicodynamic Models (GUTS): Assumptions, Experimental Testing, and Predictive Power. Environmental Science & Technology, 2021, 55, 2430-2439.	10.0	18
10	Off-Target Stoichiometric Binding Identified from Toxicogenomics Explains Why Some Species Are More Sensitive than Others to a Widely Used Neonicotinoid. Environmental Science & Technology, 2021, 55, 3059-3069.	10.0	9
11	What Is on the Outside Mattersâ€"Surface Charge and Dissolve Organic Matter Association Affect the Toxicity and Physiological Mode of Action of Polystyrene Nanoplastics to <i>C. elegans</i>. Environmental Science & Technology, 2021, 55, 6065-6075.	10.0	52
12	Bridging international approaches on nanoEHS. Nature Nanotechnology, 2021, 16, 608-611.	31.5	6
13	Plasticisers in the terrestrial environment: sources, occurrence and fate. Environmental Chemistry, 2021, 18, 111-130.	1.5	34
14	Higher than â€¦ or lower than â€¦? Evidence for the validity of the extrapolation of laboratory toxicity test results to predict the effects of chemicals and ionising radiation in the field. Journal of Environmental Radioactivity, 2020, 211, 105757.	1.7	1
15	Accumulation of polybrominated diphenyl ethers and microbiome response in the great pond snail Lymnaea stagnalis with exposure to nylon (polyamide) microplastics. Ecotoxicology and Environmental Safety, 2020, 188, 109882.	6.0	40
16	Probing the immune responses to nanoparticles across environmental species. A perspective of the EU Horizon 2020 project PANDORA. Environmental Science: Nano, 2020, 7, 3216-3232.	4.3	17
17	The Effects of In Vivo Exposure to Copper Oxide Nanoparticles on the Gut Microbiome, Host Immunity, and Susceptibility to a Bacterial Infection in Earthworms. Nanomaterials, 2020, 10, 1337.	4.1	24
18	Species Sensitivity to Toxic Substances: Evolution, Ecology and Applications. Frontiers in Environmental Science, 2020, 8, .	3.3	65

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19	Chemical transformation and surface functionalisation affect the potential to group nanoparticles for risk assessment. Environmental Science: Nano, 2020, 7, 3100-3107.	4.3	3
20	Key principles and operational practices for improved nanotechnology environmental exposure assessment. Nature Nanotechnology, 2020, 15, 731-742.	31.5	66
21	Addressing Nanomaterial Immunosafety by Evaluating Innate Immunity across Living Species. Small, 2020, 16, e2000598.	10.0	35
22	Nanomaterial Transformations in the Environment: Effects of Changing Exposure Forms on Bioaccumulation and Toxicity. Small, 2020, 16, e2000618.	10.0	37
23	Comparison of species sensitivity distribution modeling approaches for environmental risk assessment of nanomaterials â€“ A case study for silver and titanium dioxide representative materials. Aquatic Toxicology, 2020, 225, 105543.	4.0	13
24	Toxicogenomics in a soil sentinel exposure to Zn nanoparticles and ions reveals the comparative role of toxicokinetic and toxicodynamic mechanisms. Environmental Science: Nano, 2020, 7, 1464-1480.	4.3	3
25	The gut barrier and the fate of engineered nanomaterials: a view from comparative physiology. Environmental Science: Nano, 2020, 7, 1874-1898.	4.3	32
26	Genetic, epigenetic and microbiome characterisation of an earthworm species (Octolasion lacteum) along a radiation exposure gradient at Chernobyl. Environmental Pollution, 2019, 255, 113238.	7.5	19
27	Investigating combined toxicity of binary mixtures in bees: Meta-analysis of laboratory tests, modelling, mechanistic basis and implications for risk assessment. Environment International, 2019, 133, 105256.	10.0	54
28	Genomic mutations after multigenerational exposure of Caenorhabditis elegans to pristine and sulfidized silver nanoparticles. Environmental Pollution, 2019, 254, 113078.	7.5	31
29	Microplastic particles reduce reproduction in the terrestrial worm Enchytraeus crypticus in a soil exposure. Environmental Pollution, 2019, 255, 113174.	7.5	150
30	Evaluating environmental risk assessment models for nanomaterials according to requirements along the product innovation Stage-Gate process. Environmental Science: Nano, 2019, 6, 505-518.	4.3	24
31	Current evidence for a role of epigenetic mechanisms in response to ionizing radiation in an ecotoxicological context. Environmental Pollution, 2019, 251, 469-483.	7.5	39
32	Strategies for robust and accurate experimental approaches to quantify nanomaterial bioaccumulation across a broad range of organisms. Environmental Science: Nano, 2019, 6, 1619-1656.	4.3	48
33	Phenotypic responses in <i>Caenorhabditis elegans</i> following chronic lowâ€level exposures to inorganic and organic compounds. Environmental Toxicology and Chemistry, 2018, 37, 920-930.	4.3	4
34	Acute toxicity of organic pesticides to Daphnia magna is unchanged by co-exposure to polystyrene microplastics. Ecotoxicology and Environmental Safety, 2018, 166, 26-34.	6.0	76
35	Influence of soil porewater properties on the fate and toxicity of silver nanoparticles to <i>Caenorhabditis elegans</i>. Environmental Toxicology and Chemistry, 2018, 37, 2609-2618.	4.3	14
36	Toward sustainable environmental quality: Priority research questions for Europe. Environmental Toxicology and Chemistry, 2018, 37, 2281-2295.	4.3	98

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37	Microplastics in freshwater and terrestrial environments: Evaluating the current understanding to identify the knowledge gaps and future research priorities. Science of the Total Environment, 2017, 586, 127-141.	8.0	2,188
38	Comparative toxicity of pesticides and environmental contaminants in bees: Are honey bees a useful proxy for wild bee species?. Science of the Total Environment, 2017, 578, 357-365.	8.0	106
39	Large microplastic particles in sediments of tributaries of the River Thames, UK â€" Abundance, sources and methods for effective quantification. Marine Pollution Bulletin, 2017, 114, 218-226.	5.0	651
40	Genetic variation in populations of the earthworm, Lumbricus rubellus, across contaminated mine sites. BMC Genetics, 2017, 18, 97.	2.7	29
41	Comparing bee species responses to chemical mixtures: Common response patterns?. PLoS ONE, 2017, 12, e0176289.	2.5	54
42	EFSA Scientific Colloquium 22 â€" Epigenetics and Risk Assessment: Where do we stand?. EFSA Supporting Publications, 2016, 13, 1129E.	0.7	1
43	Ecological drivers influence the distributions of two cryptic lineages in an earthworm morphospecies. Applied Soil Ecology, 2016, 108, 8-15.	4.3	15
44	Multigenerational exposure to silver ions and silver nanoparticles reveals heightened sensitivity and epigenetic memory in <i>Caenorhabditis elegans</i>. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20152911.	2.6	54
45	Earthworm Uptake Routes and Rates of Ionic Zn and ZnO Nanoparticles at Realistic Concentrations, Traced Using Stable Isotope Labeling. Environmental Science & Technology, 2016, 50, 412-419.	10.0	57
46	Soil pH effects on the interactions between dissolved zinc, non-nano- and nano-ZnO with soil bacterial communities. Environmental Science and Pollution Research, 2016, 23, 4120-4128.	5.3	79
47	Variable Temperature Stress in the Nematode Caenorhabditis elegans (Maupas) and Its Implications for Sensitivity to an Additional Chemical Stressor. PLoS ONE, 2016, 11, e0140277.	2.5	22
48	Hormesis depends upon the life-stage and duration of exposure: Examples for a pesticide and a nanomaterial. Ecotoxicology and Environmental Safety, 2015, 120, 117-123.	6.0	34
49	Analytical approaches to support current understanding of exposure, uptake and distributions of engineered nanoparticles by aquatic and terrestrial organisms. Ecotoxicology, 2015, 24, 239-261.	2.4	49
50	Different routes, same pathways: Molecular mechanisms under silver ion and nanoparticle exposures in the soil sentinel Eisenia fetida. Environmental Pollution, 2015, 205, 385-393.	7.5	60
51	Unique metabolites protect earthworms against plant polyphenols. Nature Communications, 2015, 6, 7869.	12.8	71
52	Uptake routes and toxicokinetics of silver nanoparticles and silver ions in the earthworm <i>Lumbricus rubellus</i>. Environmental Toxicology and Chemistry, 2015, 34, 2263-2270.	4.3	52
53	Short-term soil bioassays may not reveal the full toxicity potential for nanomaterials; bioavailability and toxicity of silver ions (AgNO3) and silver nanoparticles to earthworm Eisenia fetida in long-term aged soils. Environmental Pollution, 2015, 203, 191-198.	7.5	93
54	The importance of experimental time when assessing the effect of temperature on toxicity in poikilotherms. Environmental Toxicology and Chemistry, 2014, 33, 1363-1371.	4.3	7

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55	Soil pH effects on the comparative toxicity of dissolved zinc, non-nano and nano ZnO to the earthworm<i>Eisenia fetida</i>. Nanotoxicology, 2014, 8, 559-572.	3.0	108
56	Metalloproteins and phytochelatin synthase may confer protection against zinc oxide nanoparticle induced toxicity in Caenorhabditis elegans. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2014, 160, 75-85.	2.6	35
57	Toxicity of cerium oxide nanoparticles to the earthworm Eisenia fetida: subtle effects. Environmental Chemistry, 2014, 11, 268.	1.5	60
58	Identifying biochemical phenotypic differences between cryptic species. Biology Letters, 2014, 10, 20140615.	2.3	13
59	Nanopesticides: Guiding Principles for Regulatory Evaluation of Environmental Risks. Journal of Agricultural and Food Chemistry, 2014, 62, 4227-4240.	5.2	308
60	Modelling the effects of copper on soil organisms and processes using the free ion approach: Towards a multi-species toxicity model. Environmental Pollution, 2013, 178, 244-253.	7.5	34
61	Land-use and land-management change: relationships with earthworm and fungi communities and soil structural properties. BMC Ecology, 2013, 13, 46.	3.0	118
62	Metabolomics and its use in ecology. Austral Ecology, 2013, 38, 713-720.	1.5	79
63	A new medium for <i>Caenorhabditis elegans</i> toxicology and nanotoxicology studies designed to better reflect natural soil solution conditions. Environmental Toxicology and Chemistry, 2013, 32, 1711-1717.	4.3	33
64	DNA sequence variation and methylation in an arsenic tolerant earthworm population. Soil Biology and Biochemistry, 2013, 57, 524-532.	8.8	68
65	Low temperatures enhance the toxicity of copper and cadmium to <i>Enchytraeus crypticus</i> through different mechanisms. Environmental Toxicology and Chemistry, 2013, 32, 2274-2283.	4.3	25
66	Potential New Method of Mixture Effects Testing Using Metabolomics and <i>Caenorhabditis elegans</i>. Journal of Proteome Research, 2012, 11, 1446-1453.	3.7	48
67	Toxicogenomic Responses of the Model Organism Caenorhabditis elegans to Gold Nanoparticles. Environmental Science & Technology, 2012, 46, 4115-4124.	10.0	92
68	Metabolic profiling detects early effects of environmental and lifestyle exposure to cadmium in a human population. BMC Medicine, 2012, 10, 61.	5.5	121
69	How does growth temperature affect cadmium toxicity measured on different life history traits in the soil nematode <i>Caenorhabditis elegans</i>?. Environmental Toxicology and Chemistry, 2012, 31, 787-793.	4.3	19
70	Modelling the joint effects of a metal and a pesticide on reproduction and toxicokinetics in Lumbricid earthworms. Environment International, 2011, 37, 663-670.	10.0	50
71	Comparative chronic toxicity of nanoparticulate and ionic zinc to the earthworm Eisenia veneta in a soil matrix. Environment International, 2011, 37, 1111-1117.	10.0	97
72	Toxicokinetic studies reveal variability in earthworm pollutant handling. Pedobiologia, 2011, 54, S217-S222.	1.2	31

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73	An assessment of the fate, behaviour and environmental risk associated with sunscreen TiO2 nanoparticles in UK field scenarios. Science of the Total Environment, 2011, 409, 2503-2510.	8.0	150
74	Outdoor and indoor cadmium distributions near an abandoned smelting works and their relations to human exposure. Environmental Pollution, 2011, 159, 3425-3432.	7.5	13
75	Application of physiologically based modelling and transcriptomics to probe the systems toxicology of aldicarb for Caenorhabditis elegans (Maupas 1900). Ecotoxicology, 2011, 20, 397-408.	2.4	26
76	Interactions between effects of environmental chemicals and natural stressors: A review. Science of the Total Environment, 2010, 408, 3746-3762.	8.0	621
77	Three-phase metal kinetics in terrestrial invertebrates exposed to high metal concentrations. Science of the Total Environment, 2010, 408, 3794-3802.	8.0	30
78	Systems toxicology approaches for understanding the joint effects of environmental chemical mixtures. Science of the Total Environment, 2010, 408, 3725-3734.	8.0	198
79	Linking toxicant physiological mode of action with induced gene expression changes in Caenorhabditis elegans. BMC Systems Biology, 2010, 4, 32.	3.0	46
80	Similarity, independence, or interaction for binary mixture effects of nerve toxicants for the nematode <i>Caenorhabditis elegans</i>. Environmental Toxicology and Chemistry, 2010, 29, 1182-1191.	4.3	39
81	A critical review of current methods in earthworm ecology: From individuals to populations. European Journal of Soil Biology, 2010, 46, 67-73.	3.2	98
82	Validation of metabolomics for toxic mechanism of action screening with the earthworm Lumbricus rubellus. Metabolomics, 2009, 5, 72-83.	3.0	48
83	Measurement and modeling of the toxicity of binary mixtures in the nematode <i>Caenorhabditis elegans</i>â€"a test of independent action. Environmental Toxicology and Chemistry, 2009, 28, 97-104.	4.3	52
84	COMBINED CHEMICAL (FLUORANTHENE) AND DROUGHT EFFECTS ON LUMBRICUS RUBELLUS DEMONSTRATE THE APPLICABILITY OF THE INDEPENDENT ACTION MODEL FOR MULTIPLE STRESSOR ASSESSMENT. Environmental Toxicology and Chemistry, 2009, 28, 629.	4.3	29
85	Measuring and modelling mixture toxicity of imidacloprid and thiacloprid on Caenorhabditis elegans and Eisenia fetida. Ecotoxicology and Environmental Safety, 2009, 72, 71-79.	6.0	98
86	Glutathione transferase (GST) as a candidate molecular-based biomarker for soil toxin exposure in the earthworm Lumbricus rubellus. Environmental Pollution, 2009, 157, 2459-2469.	7.5	65
87	'Systems toxicology' approach identifies coordinated metabolic responses to copper in a terrestrial non-model invertebrate, the earthworm Lumbricus rubellus. BMC Biology, 2008, 6, 25.	3.8	168
88	Transcriptome profiling of developmental and xenobiotic responses in a keystone soil animal, the oligochaete annelid Lumbricus rubellus. BMC Genomics, 2008, 9, 266.	2.8	93
89	Current research in soil invertebrate ecotoxicogenomics. Advances in Experimental Biology, 2008, 2, 133-326.	0.1	9
90	Geographical and pedological drivers of distribution and risks to soil fauna of seven metals (Cd, Cu,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	7.5	71

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91	A metabolomics based approach to assessing the toxicity of the polyaromatic hydrocarbon pyrene to the earthworm Lumbricus rubellus. Chemosphere, 2008, 71, 601-609.	8.2	122
92	Effect of temperature and season on reproduction, neutral red retention and metallothionein responses of earthworms exposed to metals in field soils. Environmental Pollution, 2007, 147, 83-93.	7.5	25
93	Metabolic Profile Biomarkers of Metal Contamination in a Sentinel Terrestrial Species Are Applicable Across Multiple Sites. Environmental Science & Technology, 2007, 41, 4458-4464.	10.0	96
94	Factors Influencing the National Distribution of Polycyclic Aromatic Hydrocarbons and Polychlorinated Biphenyls in British Soils. Environmental Science & Technology, 2006, 40, 7629-7635.	10.0	113
95	DEVELOPING A CRITICAL LOAD APPROACH FOR NATIONAL RISK ASSESSMENTS OF ATMOSPHERIC METAL DEPOSITION. Environmental Toxicology and Chemistry, 2006, 25, 883.	4.3	22
96	EFFECT OF pH ON METAL SPECIATION AND RESULTING METAL UPTAKE AND TOXICITY FOR EARTHWORMS. Environmental Toxicology and Chemistry, 2006, 25, 788.	4.3	74
97	Fractions Affected and Probabilistic Risk Assessment of Cu, Zn, Cd, and Pb in Soils Using the Free Ion Approach. Environmental Science & Technology, 2005, 39, 8533-8540.	10.0	23
98	Establishing principal soil quality parameters influencing earthworms in urban soils using bioassays. Environmental Pollution, 2005, 133, 199-211.	7.5	20
99	Earthworm responses to Cd and Cu under fluctuating environmental conditions: a comparison with results from laboratory exposures. Environmental Pollution, 2005, 136, 443-452.	7.5	53
100	Hierarchical Responses of Soil Invertebrates (Earthworms) to Toxic Metal Stress. Environmental Science & Technology, 2005, 39, 5327-5334.	10.0	49
101	Pedological Characterisation of Sites Along a Transect from a Primary Cadmium/Lead/Zinc Smelting Works. Ecotoxicology, 2004, 13, 725-737.	2.4	53
102	Environmental Metabonomics: Applying Combination Biomarker Analysis in Earthworms at a Metal Contaminated Site. Ecotoxicology, 2004, 13, 797-806.	2.4	128
103	Metal Effects on Soil Invertebrate Feeding: Measurements Using the Bait Lamina Method. Ecotoxicology, 2004, 13, 807-816.	2.4	58
104	Critical Analysis of Soil Invertebrate Biomarkers: A Field Case Study in Avonmouth, UK. Ecotoxicology, 2004, 13, 817-822.	2.4	31
105	Deriving Soil Critical Limits for Cu, Zn, Cd, and Pb:Â A Method Based on Free Ion Concentrations. Environmental Science & Technology, 2004, 38, 3623-3631.	10.0	188
106	Toxicological, cellular and gene expression responses in earthworms exposed to copper and cadmium. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2004, 138, 11-21.	2.6	39
107	Responses of earthworms (Lumbricus rubellus) to copper and cadmium as determined by measurement of juvenile traits in a specifically designed test system. Ecotoxicology and Environmental Safety, 2004, 57, 54-64.	6.0	66
108	Closing the loop: A spatial analysis to link observed environmental damage to predicted heavy metal emissions. Environmental Toxicology and Chemistry, 2003, 22, 970-976.	4.3	22

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109	Quantifying copper and cadmium impacts on intrinsic rate of population increase in the terrestrial oligochaete<i>Lumbricus rubellus</i>. Environmental Toxicology and Chemistry, 2003, 22, 1465-1472.	4.3	40
110	Explaining density-dependent regulation in earthworm populations using life-history analysis. Oikos, 2003, 100, 89-95.	2.7	33
111	A summary of eleven years progress in earthworm ecotoxicology. Pedobiologia, 2003, 47, 588-606.	1.2	30
112	A summary of eleven years progress in earthworm ecotoxicologyThe 7th international symposium on earthworm ecology Â· Cardiff Â· Wales Â· 2002. Pedobiologia, 2003, 47, 588-606.	1.2	147
113	CLOSING THE LOOP: A SPATIAL ANALYSIS TO LINK OBSERVED ENVIRONMENTAL DAMAGE TO PREDICTED HEAVY METAL EMISSIONS. Environmental Toxicology and Chemistry, 2003, 22, 970.	4.3	2
114	Quantifying copper and cadmium impacts on intrinsic rate of population increase in the terrestrial oligochaete Lumbricus rubellus. Environmental Toxicology and Chemistry, 2003, 22, 1465-72.	4.3	8
115	Metabonomic assessment of toxicity of 4â€fluoroaniline, 3,5â€difluoroaniline and 2â€fluoroâ€4â€methylaniline to the earthworm<i>Eisenia veneta</i>(rosa): Identification of new endogenous biomarkers. Environmental Toxicology and Chemistry, 2002, 21, 1966-1972.	4.3	110
116	Relative sensitivity of lifeâ€cycle and biomarker responses in four earthworm species exposed to zinc. Environmental Toxicology and Chemistry, 2000, 19, 1800-1808.	4.3	125
117	RELATIVE SENSITIVITY OF LIFE-CYCLE AND BIOMARKER RESPONSES IN FOUR EARTHWORM SPECIES EXPOSED TO ZINC. Environmental Toxicology and Chemistry, 2000, 19, 1800.	4.3	4
118	Life-History Patterns in Reference and Metal-Exposed Earthworm Populations. Ecotoxicology, 1999, 8, 133-141.	2.4	30
119	Risk assessment of the threat of secondary poisoning by metals to predators of earthworms in the vicinity of a primary smelting works. Science of the Total Environment, 1996, 187, 167-183.	8.0	79
120	Effects of Metal-Contaminated Soils on the Growth, Sexual Development, and Early Cocoon Production of the EarthwormEisenia fetida,with Particular Reference to Zinc. Ecotoxicology and Environmental Safety, 1996, 35, 86-95.	6.0	133
121	The effects of metal contamination on earthworm populations around a smelting works: quantifying species effects. Applied Soil Ecology, 1996, 4, 147-160.	4.3	137
122	Extrapolation of the laboratory-based OECD earthworm toxicity test to metal-contaminated field sites. Ecotoxicology, 1995, 4, 190-205.	2.4	224
123	Biological Methods for Assessing Potentially Contaminated Soils. , 0, , 163-205.		5