Richard D Handy

List of Publications by Year
in descending order

95 papers	13,039 citations	47409 49 h-index	48101 92 g-index
96 all docs	96 docs citations	96 times ranked	14395 citing authors

#	Article	IF	Citations
1	The bioaccumulation testing strategy for nanomaterials: correlations with particle properties and a meta-analysis of in vitro fish alternatives to in vivo fish tests. Environmental Science: Nano, 2022, 9, 684-701.	2.2	7
2	Determination of metallic nanoparticles in biological samples by single particle ICP-MS: a systematic review from sample collection to analysis. Environmental Science: Nano, 2022, 9, 420-453.	2.2	17
3	Toxicogenomic Profiling of 28 Nanomaterials in Mouse Airways. Advanced Science, 2021, 8, 2004588.	5.6	15
4	Dietary exposure to copper sulphate compared to a copper oxide nanomaterial in rainbow trout: bioaccumulation with minimal physiological effects. Environmental Science: Nano, 2021, 8, 2297-2309.	2.2	3
5	Quantification of particulate Ag in rainbow trout organs following dietary exposure to silver nitrate, or two forms of engineered silver nanoparticles. Environmental Science: Nano, 2021, 8, 1642-1653.	2.2	3
6	The bioaccumulation testing strategy for manufactured nanomaterials: physico-chemical triggers and read across from earthworms in a meta-analysis. Environmental Science: Nano, 2021, 8, 3167-3185.	2.2	4
7	Antibacterial properties of silver nanoparticles grown in situ and anchored to titanium dioxide nanotubes on titanium implant against Staphylococcus aureus. Nanotoxicology, 2020, 14, 97-110.	1.6	60
8	The biocompatibility of silver and nanohydroxyapatite coatings on titanium dental implants with human primary osteoblast cells. Materials Science and Engineering C, 2020, 107, 110210.	3.8	50
9	Toxicities of copper oxide nanomaterial and copper sulphate in early life stage zebrafish: Effects of pH and intermittent pulse exposure. Ecotoxicology and Environmental Safety, 2020, 190, 109985.	2.9	33
10	Comparison of the dietary bioavailability of copper sulphate and copper oxide nanomaterials inex vivogut sacs of rainbow trout: effects of low pH and amino acids in the lumen. Environmental Science: Nano, 2020, 7, 1967-1979.	2.2	4
11	Dietary bioaccumulation potential of silver nanomaterials compared to silver nitrate in wistar rats using an ex vivo gut sac technique. Ecotoxicology and Environmental Safety, 2020, 200, 110745.	2.9	5
12	Consequences of surface coatings and soil ageing on the toxicity of cadmium telluride quantum dots to the earthworm Eisenia fetida. Ecotoxicology and Environmental Safety, 2020, 201, 110813.	2.9	10
13	The gut barrier and the fate of engineered nanomaterials: a view from comparative physiology. Environmental Science: Nano, 2020, 7, 1874-1898.	2.2	32
14	Surface PEGylation suppresses pulmonary effects of CuO in allergen-induced lung inflammation. Particle and Fibre Toxicology, 2019, 16, 28.	2.8	26
15	Carbon Nanotube Reinforced Hydroxyapatite Nanocomposites As Bone Implants: Nanostructure, Mechanical Strength And Biocompatibility . International Journal of Nanomedicine, 2019, Volume 14, 7947-7962.	3.3	15
16	Determination of the bioaccessible fraction of cupric oxide nanoparticles in soils using an in vitro human digestibility simulation. Environmental Science: Nano, 2019, 6, 432-443.	2.2	2
17	An assessment of the dietary bioavailability of silver nanomaterials in rainbow trout using anex vivogut sac technique. Environmental Science: Nano, 2019, 6, 646-660.	2.2	16
18	Tools and rules for modelling uptake and bioaccumulation of nanomaterials in invertebrate organisms. Environmental Science: Nano, 2019, 6, 1985-2001.	2.2	43

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19	Dietary exposure to silver nitrate compared to two forms of silver nanoparticles in rainbow trout: bioaccumulation potential with minimal physiological effects. Environmental Science: Nano, 2019, 6, 1393-1405.	2.2	29
20	Strategies for robust and accurate experimental approaches to quantify nanomaterial bioaccumulation across a broad range of organisms. Environmental Science: Nano, 2019, 6, 1619-1656.	2.2	48
21	Particle toxicology and health - where are we?. Particle and Fibre Toxicology, 2019, 16, 19.	2.8	133
22	Development of a suitable detection method for silver nanoparticles in fish tissue using single particle ICP-MS. Environmental Science: Nano, 2019, 6, 3388-3400.	2.2	21
23	Effects of Nanomaterials on the Body Systems of Fishes. , 2019, , 156-168.		3
24	Nanomaterials in the environment: Behavior, fate, bioavailability, and effectsâ€"An updated review. Environmental Toxicology and Chemistry, 2018, 37, 2029-2063.	2.2	429
25	Low hazard of silver nanoparticles and silver nitrate to the haematopoietic system of rainbow trout. Ecotoxicology and Environmental Safety, 2018, 152, 121-131.	2.9	23
26	Intravenous injection of unfunctionalized carbon-based nanomaterials confirms the minimal toxicity observed in aqueous and dietary exposures in juvenile rainbow trout (Oncorhynchus mykiss). Environmental Pollution, 2018, 232, 191-199.	3.7	5
27	Antifungal properties and biocompatibility of silver nanoparticle coatings on silicone maxillofacial prostheses in vitro. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 1038-1051.	1.6	33
28	Copper accumulation and toxicity in earthworms exposed to CuO nanomaterials: Effects of particle coating and soil ageing. Ecotoxicology and Environmental Safety, 2018, 166, 462-473.	2.9	50
29	Anodised TiO2 nanotubes as a scaffold for antibacterial silver nanoparticles on titanium implants. Materials Science and Engineering C, 2018, 91, 638-644.	3.8	62
30	The minimum inhibitory concentration (MIC) assay with Escherichia coli: An early tier in the environmental hazard assessment of nanomaterials?. Ecotoxicology and Environmental Safety, 2018, 162, 633-646.	2.9	34
31	Proposal for a tiered dietary bioaccumulation testing strategy for engineered nanomaterials using fish. Environmental Science: Nano, 2018, 5, 2030-2046.	2.2	23
32	Antibacterial activity and biofilm inhibition by surface modified titanium alloy medical implants following application of silver, titanium dioxide and hydroxyapatite nanocoatings. Nanotoxicology, 2017, 11, 327-338.	1.6	147
33	Sub-lethal effects of waterborne exposure to copper nanoparticles compared to copper sulphate on the shore crab (Carcinus maenas). Aquatic Toxicology, 2017, 191, 245-255.	1.9	13
34	Nanomaterials in the aquatic environment: A European Unionâ€"United States perspective on the status of ecotoxicity testing, research priorities, and challenges ahead. Environmental Toxicology and Chemistry, 2016, 35, 1055-1067.	2.2	163
35	Regulatory ecotoxicity testing of nanomaterials â€" proposed modifications of OECD test guidelines based on laboratory experience with silver and titanium dioxide nanoparticles. Nanotoxicology, 2016, 10, 1442-1447.	1.6	103
36	A critical evaluation of the fish early-life stage toxicity test for engineered nanomaterials: experimental modifications and recommendations. Archives of Toxicology, 2016, 90, 2077-2107.	1.9	45

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37	Sublethal effects of copper sulphate compared to copper nanoparticles in rainbow trout (Oncorhynchus mykiss) at low pH: physiology and metal accumulation. Aquatic Toxicology, 2016, 174, 188-198.	1.9	39
38	Review of Nanomaterials in Dentistry: Interactions with the Oral Microenvironment, Clinical Applications, Hazards, and Benefits. ACS Nano, 2015, 9, 2255-2289.	7.3	194
39	Inhibition of biofilm formation and antibacterial properties of a silver nano-coating on human dentine. Nanotoxicology, 2014, 8, 1-10.	1.6	73
40	Uptake of different crystal structures of TiO2 nanoparticles by Caco-2 intestinal cells. Toxicology Letters, 2014, 226, 264-276.	0.4	63
41	Effects of metal nanoparticles on the lateral line system and behaviour in early life stages of zebrafish (Danio rerio). Aquatic Toxicology, 2014, 152, 318-323.	1.9	52
42	Effects of silver nanoparticles (NMâ€300K) on Lumbricus rubellus earthworms and particle characterization in relevant test matrices including soil. Environmental Toxicology and Chemistry, 2014, 33, 743-752.	2.2	85
43	Minimal effects of waterborne exposure to single-walled carbon nanotubes on behaviour and physiology of juvenile rainbow trout (Oncorhynchus mykiss). Aquatic Toxicology, 2014, 146, 154-164.	1.9	17
44	Toxicity of cerium oxide nanoparticles to the earthworm Eisenia fetida: subtle effects. Environmental Chemistry, 2014, 11, 268.	0.7	60
45	Impaired behavioural response to alarm substance in rainbow trout exposed to copper nanoparticles. Aquatic Toxicology, 2014, 152, 195-204.	1.9	51
46	The antibacterial effects of silver, titanium dioxide and silica dioxide nanoparticles compared to the dental disinfectant chlorhexidine onStreptococcus mutansusing a suite of bioassays. Nanotoxicology, 2014, 8, 1-16.	1.6	386
47	Ingestion of metal-nanoparticle contaminated food disrupts endogenous microbiota in zebrafish (Danio rerio). Environmental Pollution, 2013, 174, 157-163.	3.7	115
48	Critical comparison of intravenous injection of TiO2 nanoparticles with waterborne and dietary exposures concludes minimal environmentally-relevant toxicity in juvenile rainbow trout Oncorhynchus mykiss. Environmental Pollution, 2013, 182, 70-79.	3.7	40
49	Uptake of titanium from TiO₂nanoparticle exposure in the isolated perfused intestine of rainbow trout: nystatin, vanadate and novel CO₂-sensitive components. Nanotoxicology, 2013, 7, 1282-1301.	1.6	44
50	Subtle alterations in swimming speed distributions of rainbow trout exposed to titanium dioxide nanoparticles are associated with gill rather than brain injury. Aquatic Toxicology, 2013, 126, 116-127.	1.9	84
51	Histopathological effects of waterborne copper nanoparticles and copper sulphate on the organs of rainbow trout (Oncorhynchus mykiss). Aquatic Toxicology, 2013, 126, 104-115.	1.9	211
52	Effect of nanomaterials on the compound action potential of the shore crab,Carcinus maenas. Nanotoxicology, 2013, 7, 378-388.	1.6	11
53	Towards a Consensus View on Understanding Nanomaterials Hazards and Managing Exposure: Knowledge Gaps and Recommendations. Materials, 2013, 6, 1090-1117.	1.3	28
54	A simplified method for determining titanium from TiO2 nanoparticles in fish tissue with a concomitant multi-element analysis. Chemosphere, 2013, 92, 1136-1144.	4.2	26

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55	Sub-lethal effects of titanium dioxide nanoparticles on the physiology and reproduction of zebrafish. Aquatic Toxicology, 2013, 126, 404-413.	1.9	94
56	Emerging Threats to Fishes: Engineered Organic Nanomaterials. Fish Physiology, 2013, , 439-479.	0.2	5
57	Effects of waterborne copper nanoparticles and copper sulphate on rainbow trout, (Oncorhynchus) Tj ETQq1 1 0.784314 rgBT /Overlo	1.9	184
58	Practical considerations for conducting ecotoxicity test methods with manufactured nanomaterials: what have we learnt so far?. Ecotoxicology, 2012, 21, 933-972.	1.1	175
59	Ecotoxicity test methods for engineered nanomaterials: Practical experiences and recommendations from the bench. Environmental Toxicology and Chemistry, 2012, 31, 15-31.	2.2	273
60	Paradigms to assess the environmental impact of manufactured nanomaterials. Environmental Toxicology and Chemistry, 2012, 31, 3-14.	2.2	294
61	Dietary toxicity of single-walled carbon nanotubes and fullerenes (C₆₀) in rainbow trout (Oncorhynchus mykiss). Nanotoxicology, 2011, 5, 98-108.	1.6	90
62	Physiological effects of nanoparticles on fish: A comparison of nanometals versus metal ions. Environment International, 2011, 37, 1083-1097.	4.8	337
63	Effects of manufactured nanomaterials on fishes: a target organ and body systems physiology approach. Journal of Fish Biology, 2011, 79, 821-853.	0.7	92
64	Endosulfan affects health variables in adult zebrafish (Danio rerio) and induces alterations in larvae development. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2011, 153, 372-380.	1.3	34
65	Tissue Injury and Cellular Immune Responses to Cadmium Chloride Exposure in the Common Mussel Mytilus edulis: Modulation by Lipopolysaccharide. Archives of Environmental Contamination and Toxicology, 2010, 59, 602-613.	2.1	47
66	Nanomaterials for environmental studies: Classification, reference material issues, and strategies for physico-chemical characterisation. Science of the Total Environment, 2010, 408, 1745-1754.	3.9	339
67	Dietary exposure to titanium dioxide nanoparticles in rainbow trout, (Oncorhynchus mykiss): no effect on growth, but subtle biochemical disturbances in the brain. Ecotoxicology, 2009, 18, 939-951.	1.1	196
68	Impact of Silver Nanoparticle Contamination on the Genetic Diversity of Natural Bacterial Assemblages in Estuarine Sediments. Environmental Science & Technology, 2009, 43, 4530-4536.	4.6	189
69	The ecotoxicology and chemistry of manufactured nanoparticles. Ecotoxicology, 2008, 17, 287-314.	1.1	774
70	Manufactured nanoparticles: their uptake and effects on fishâ€"a mechanistic analysis. Ecotoxicology, 2008, 17, 396-409.	1.1	385
71	The ecotoxicology of nanoparticles and nanomaterials: current status, knowledge gaps, challenges, and future needs. Ecotoxicology, 2008, 17, 315-325.	1.1	746
72	Ecotoxicity test methods and environmental hazard assessment for engineered nanoparticles. Ecotoxicology, 2008, 17, 421-437.	1.1	170

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73	Nanomaterials in the environment: Behavior, fate, bioavailability, and effects. Environmental Toxicology and Chemistry, 2008, 27, 1825-1851.	2.2	2,370
74	Toxicity of single walled carbon nanotubes to rainbow trout, (Oncorhynchus mykiss): Respiratory toxicity, organ pathologies, and other physiological effects. Aquatic Toxicology, 2007, 82, 94-109.	1.9	516
75	Dietary copper exposure in the African walking catfish, Clarias gariepinus: Transient osmoregulatory disturbances and oxidative stress. Aquatic Toxicology, 2007, 83, 62-72.	1.9	87
76	Toxicity of titanium dioxide nanoparticles to rainbow trout (Oncorhynchus mykiss): Gill injury, oxidative stress, and other physiological effects. Aquatic Toxicology, 2007, 84, 415-430.	1.9	666
77	Ecotoxicity of nanomaterials to fish: Challenges for ecotoxicity testing. Integrated Environmental Assessment and Management, 2007, 3, 458-460.	1.6	30
78	Dietary copper exposure and recovery in Nile tilapia, Oreochromis niloticus. Aquatic Toxicology, 2006, 76, 111-121.	1.9	90
79	Sodium-sensitive and -insensitive copper accumulation by isolated intestinal cells of rainbow trout Oncorhynchus mykiss. Journal of Experimental Biology, 2005, 208, 391-407.	0.8	38
80	Shifts in a Fishâ€™s Resource Holding Power during a Contact Paired Interaction: The Influence of a Copperâ€Contaminated Diet in Rainbow Trout. Physiological and Biochemical Zoology, 2005, 78, 706-714.	0.6	26
81	Dose-dependent inorganic mercury absorption by isolated perfused intestine of rainbow trout, Oncorhynchus mykiss, involves both amiloride-sensitive and energy-dependent pathways. Aquatic Toxicology, 2005, 72, 147-159.	1.9	159
82	Physiological modulation of iron metabolism in rainbow trout(Oncorhynchus mykiss) fed low and high iron diets. Journal of Experimental Biology, 2004, 207, 75-86.	0.8	84
83	Transport of Solutes Across Biological Membranes in Eukaryotes: An Environmental Perspective. , 2004, , 337-356.		10
84	Immunotoxicity of organophosphorous pesticides. Ecotoxicology, 2003, 12, 345-363.	1.1	395
85	EFFECT OF LOW SALINITY ON CADMIUM ACCUMULATION AND CALCIUM HOMEOSTASIS IN THE SHORE CRAB (CARCINUS MAENAS) AT FIXED FREE Cd2+ CONCENTRATIONS. Environmental Toxicology and Chemistry, 2003, 22, 2761.	2.2	24
86	Chronic effects of copper exposure versus endocrine toxicity: two sides of the same toxicological process?. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2003, 135, 25-38.	0.8	156
87	Increased metabolic cost of swimming and consequent alterations to circadian activity in rainbow trout (Oncorhynchus mykiss) exposed to dietary copper. Canadian Journal of Fisheries and Aquatic Sciences, 2002, 59, 768-777.	0.7	70
88	Sodium-dependent copper uptake across epithelia: a review of rationale with experimental evidence from gill and intestine. Biochimica Et Biophysica Acta - Biomembranes, 2002, 1566, 104-115.	1.4	115
89	Histopathologic biomarkers in three spined sticklebacks, Gasterosteus aculeatus, from several rivers in Southern England that meet the freshwater fisheries directive. Ecotoxicology, 2002, 11, 467-479.	1.1	51
90	Mechanisms of gastrointestinal copper absorption in the African walking catfish: copper dose-effects and a novel anion-dependent pathway in the intestine. Journal of Experimental Biology, 2000, 203, 2365-77.	0.8	61

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91	Physiological Responses: Their Measurement and Use as Environmental Biomarkers in Ecotoxicology. , 1999, 8, 329-349.		138
92	Na-dependent Regulation of Intracellular Free Magnesium Concentration in Isolated Rat Ventricular Myocytes. Journal of Molecular and Cellular Cardiology, 1996, 28, 1641-1651.	0.9	63
93	Effects of Inorganic Cations on Na⁺Adsorption to the Gill and Body Surface of Rainbow Trout,Oncorhynchus mykiss, in Dilute Solutions. Canadian Journal of Fisheries and Aquatic Sciences, 1991, 48, 1829-1837.	0.7	29
94	In vitro evidence for the ionoregulatory role of rainbow trout mucus in acid, acid/aluminium and zinc toxicity. Journal of Fish Biology, 1989, 35, 737-747.	0.7	70
95	Surface absorption of aluminium by gill tissue and body mucus of rainbow trout, Salmo gairdneri, at the onset of episodic exposure. Journal of Fish Biology, 1989, 34, 865-874.	0.7	68