Frederic Dl Leusch

List of Publications by Citations

115 papers	4,755 citations	40 h-index	66 g-index
120 ext. papers	5,794 ext. citations	7.8 avg, IF	6.12 L-index

#	Paper	IF	Citations
115	Wastewater treatment plants as a pathway for microplastics: Development of a new approach to sample wastewater-based microplastics. *Water Research*, **2017**, 112, 93-99	12.5	500
114	Benchmarking organic micropollutants in wastewater, recycled water and drinking water with in vitro bioassays. *Environmental Science & Technology*, **2014**, 48, 1940-56	10.3	295
113	Impact of Microplastic Beads and Fibers on Waterflea (Ceriodaphnia dubia) Survival, Growth, and Reproduction: Implications of Single and Mixture Exposures. *Environmental Science & Technology*, **2017**, 51, 13397-13406	10.3	186
112	Comparison of five in vitro bioassays to measure estrogenic activity in environmental waters. *Environmental Science & Technology*, **2010**, 44, 3853-60	10.3	160
111	Comprehensive study of endocrine disrupting compounds using grab and passive sampling at selected wastewater treatment plants in South East Queensland, Australia. *Environment International*, **2007**, 33, 654-69	12.9	149
110	Wastewater treatment plant effluent as a source of microplastics: review of the fate, chemical interactions and potential risks to aquatic organisms. *Water Science and Technology*, **2016**, 74, 2253-2269	2.2	149
109	Environmentally relevant concentrations of polyethylene microplastics negatively impact the survival, growth and emergence of sediment-dwelling invertebrates. *Environmental Pollution*, **2018**, 236, 425-431	9.3	125
108	Extreme weather events: Should drinking water quality management systems adapt to changing risk profiles?. *Water Research*, **2015**, 85, 124-36	12.5	119
107	Removal of pharmaceuticals, steroid hormones, phytoestrogens, UV-filters, industrial chemicals and pesticides by Trametes versicolor: Role of biosorption and biodegradation. *International Biodeterioration and Biodegradation*, **2014**, 88, 169-175	4.8	119
106	Chlorine disinfection by-products in wastewater effluent: Bioassay-based assessment of toxicological impact. *Water Research*, **2012**, 46, 6069-83	12.5	118
105	A survey of endocrine disrupting chemicals (EDCs) in municipal sewage and animal waste effluents in the Waikato region of New Zealand. *Science of the Total Environment*, **2006**, 355, 135-44	10.2	102
104	Removal of trace organic contaminants by an MBR comprising a mixed culture of bacteria and white-rot fungi. *Bioresource Technology*, **2013**, 148, 234-41	11	97
103	Assessment of the application of bioanalytical tools as surrogate measure of chemical contaminants in recycled water. *Water Research*, **2014**, 49, 300-15	12.5	88
102	Assessment of wastewater and recycled water quality: a comparison of lines of evidence from in vitro, in vivo and chemical analyses. *Water Research*, **2014**, 50, 420-31	12.5	85
101	Modelling of the fate of selected endocrine disruptors in a municipal wastewater treatment plant in South East Queensland, Australia. *Chemosphere*, **2007**, 69, 644-54	8.4	80
100	Bioassay-derived androgenic and estrogenic activity in municipal sewage in Australia and New Zealand. *Ecotoxicology and Environmental Safety*, **2006**, 65, 403-11	7	76
99	In vitro bioassays to evaluate complex chemical mixtures in recycled water. *Water Research*, **2015**, 80, 1-11	12.5	73

98	Continuous biotransformation of bisphenol A and diclofenac by laccase in an enzymatic membrane reactor. *International Biodeterioration and Biodegradation*, **2014**, 95, 25-32	4.8	71
97	Impacts of redox-mediator type on trace organic contaminants degradation by laccase: Degradation efficiency, laccase stability and effluent toxicity. *International Biodeterioration and Biodegradation*, **2016**, 113, 169-176	4.8	69
96	Removal of trace organic contaminants from domestic wastewater: A meta-analysis comparison of sewage treatment technologies. *Environment International*, **2016**, 92-93, 183-8	12.9	68
95	Photolysis and UV/H 2 O 2 of diclofenac, sulfamethoxazole, carbamazepine, and trimethoprim: Identification of their major degradation products by ESI LC MS and assessment of the toxicity of reaction mixtures. *Chemical Engineering Research and Design*, **2017**, 112, 222-234	5.5	66
94	Microplastic pollution in a stormwater floating treatment wetland: Detection of tyre particles in sediment. *Science of the Total Environment*, **2020**, 713, 136356	10.2	65
93	Effects of a phytosterol mixture on male fish plasma lipoprotein fractions and testis P450scc activity. *General and Comparative Endocrinology*, **2003**, 130, 172-84	3	61
92	Biocatalytic degradation of pharmaceuticals, personal care products, industrial chemicals, steroid hormones and pesticides in a membrane distillation-enzymatic bioreactor. *Bioresource Technology*, **2018**, 247, 528-536	11	59
91	Laccase-syringaldehyde-mediated degradation of trace organic contaminants in an enzymatic membrane reactor: Removal efficiency and effluent toxicity. *Bioresource Technology*, **2016**, 200, 477-84	11	59
90	Effect-based trigger values for in vitro bioassays: Reading across from existing water quality guideline values. *Water Research*, **2015**, 81, 137-48	12.5	57
89	An audit of microplastic abundance throughout three Australian wastewater treatment plants. *Chemosphere*, **2021**, 263, 128294	8.4	57
88	Analysis of endocrine activity in drinking water, surface water and treated wastewater from six countries. *Water Research*, **2018**, 139, 10-18	12.5	56
87	An assessment of endocrine activity in Australian rivers using chemical and in vitro analyses. *Environmental Science and Pollution Research*, **2014**, 21, 12951-67	5.1	55
86	The effects of mediator and granular activated carbon addition on degradation of trace organic contaminants by an enzymatic membrane reactor. *Bioresource Technology*, **2014**, 167, 169-77	11	54
85	Analysis of the sensitivity of in vitro bioassays for androgenic, progestagenic, glucocorticoid, thyroid and estrogenic activity: Suitability for drinking and environmental waters. *Environment International*, **2017**, 99, 120-130	12.9	52
84	Sources, presence and potential effects of contaminants of emerging concern in the marine environments of the Great Barrier Reef and Torres Strait, Australia. *Science of the Total Environment*, **2020**, 719, 135140	10.2	51
83	In Vitro Cytotoxicity and Adaptive Stress Responses to Selected Haloacetic Acid and Halobenzoquinone Water Disinfection Byproducts. *Chemical Research in Toxicology*, **2015**, 28, 2059-68	4	50
82	Degradation of a broad spectrum of trace organic contaminants by an enzymatic membrane reactor: Complementary role of membrane retention and enzymatic degradation. *International Biodeterioration and Biodegradation*, **2015**, 99, 115-122	4.8	50
81	Assessing granular media filtration for the removal of chemical contaminants from wastewater. *Water Research*, **2011**, 45, 3461-72	12.5	50

80	Efficacy of an advanced sewage treatment plant in southeast Queensland, Australia, to remove estrogenic chemicals. *Environmental Science & Technology*, **2005**, 39, 5781-6	10.3	50
79	A national survey of trace organic contaminants in Australian rivers. *Journal of Environmental Quality*, **2014**, 43, 1702-12	3.4	49
78	The current state and future directions of marine turtle toxicology research. *Environment International*, **2016**, 94, 113-123	12.9	44
77	Interlaboratory comparison of in vitro bioassays for screening of endocrine active chemicals in recycled water. *Water Research*, **2015**, 83, 303-9	12.5	42
76	In vivo implants of beta-sitosterol cause reductions of reactive cholesterol pools in mitochondria isolated from gonads of male goldfish (Carassius auratus). *General and Comparative Endocrinology*, **2003**, 134, 255-63	3	42
75	Enhancement of trace organic contaminant degradation by crude enzyme extract from Trametes versicolor culture: Effect of mediator type and concentration. *Journal of the Taiwan Institute of Chemical Engineers*, **2014**, 45, 1855-1862	5.3	37
74	Degradation of diclofenac, trimethoprim, carbamazepine, and sulfamethoxazole by laccase from Trametes versicolor: Transformation products and toxicity of treated effluent. *Biocatalysis and Biotransformation*, **2019**, 37, 399-408	2.5	34
73	Using fluorescence-parallel factor analysis for assessing disinfection by-product formation and natural organic matter removal efficiency in secondary treated synthetic drinking waters. *Science of the Total Environment*, **2018**, 640-641, 31-40	10.2	34
72	Assessment of urban stream sediment pollutants entering estuaries using chemical analysis and multiple bioassays to characterise biological activities. *Science of the Total Environment*, **2017**, 593-594, 498-507	10.2	32
71	The utility of vitellogenin as a biomarker of estrogenic endocrine disrupting chemicals in molluscs. *Environmental Pollution*, **2019**, 248, 1067-1078	9.3	31
70	Effects of polyethylene microplastics on the acute toxicity of a synthetic pyrethroid to midge larvae (Chironomus tepperi) in synthetic and river water. *Science of the Total Environment*, **2019**, 671, 971-975	10.2	29
69	Bioanalytical tools: half a century of application for potable reuse. *Environmental Science: Water Research and Technology*, **2015**, 1, 606-621	4.2	29
68	A systematic review of freshwater microplastics in water and sediments: Recommendations for harmonisation to enhance future study comparisons. *Science of the Total Environment*, **2021**, 781, 146693	10.2	29
67	Determination of the androgenic potency of whole effluents using mosquitofish and trout bioassays. *Aquatic Toxicology*, **2006**, 80, 237-48	5.1	28
66	Transformation of endocrine disrupting chemicals, pharmaceutical and personal care products during drinking water disinfection. *Science of the Total Environment*, **2019**, 657, 1480-1490	10.2	27
65	Anal fin morphology and gonadal histopathology in mosquitofish (Gambusia holbrooki) exposed to treated municipal sewage effluent. *Archives of Environmental Contamination and Toxicology*, **2006**, 50, 562-74	3.2	26
64	Comparison of in vitro and in vivo bioassays to measure thyroid hormone disrupting activity in water extracts. *Chemosphere*, **2018**, 191, 868-875	8.4	26
63	A sensitive and high throughput bacterial luminescence assay for assessing aquatic toxicity--the BLT-Screen. *Environmental Sciences: Processes and Impacts*, **2015**, 17, 947-55	4.3	23

62	H NMR-based metabolomics reveals sub-lethal toxicity of a mixture of diabetic and lipid-regulating pharmaceuticals on amphibian larvae. *Aquatic Toxicology*, **2017**, 184, 123-132	5.1	21
61	Behaviour, development and metal accumulation in striped marsh frog tadpoles (Limnodynastes peronii) exposed to coal mine wastewater. *Aquatic Toxicology*, **2016**, 173, 218-227	5.1	20
60	Understanding the implications of dissolved organic carbon when assessing antagonism in vitro: An example with an estrogen receptor assay. *Chemosphere*, **2015**, 135, 341-6	8.4	19
59	Concentrations of levonorgestrel and ethinylestradiol in wastewater effluents: Is the progestin also cause for concern?. *Environmental Toxicology and Chemistry*, **2016**, 35, 1378-85	3.8	19
58	Applying mixture toxicity modelling to predict bacterial bioluminescence inhibition by non-specifically acting pharmaceuticals and specifically acting antibiotics. *Chemosphere*, **2017**, 173, 387-394	8.4	18
57	Development of methods for extraction and in vitro quantification of estrogenic and androgenic activity of wastewater samples. *Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology*, **2006**, 143, 117-26	3.2	18
56	Transcriptomic and physiological changes in Eastern Mosquitofish (Gambusia holbrooki) after exposure to progestins and anti-progestagens. *Aquatic Toxicology*, **2016**, 179, 8-17	5.1	18
55	Persulfate oxidation-assisted membrane distillation process for micropollutant degradation and membrane fouling control. *Separation and Purification Technology*, **2019**, 222, 321-331	8.3	17
54	In vitro bioassays reveal that additives are significant contributors to the toxicity of commercial household pesticides. *Aquatic Toxicology*, **2018**, 199, 263-268	5.1	17
53	Impact of hazardous events on the removal of nutrients and trace organic contaminants by an anoxic-aerobic membrane bioreactor receiving real wastewater. *Bioresource Technology*, **2015**, 192, 192-201	11	16
52	Analysis of sugarcane herbicides in marine turtle nesting areas and assessment of risk using in vitro toxicity assays. *Chemosphere*, **2017**, 185, 656-664	8.4	16
51	Degradation of Trace Organic Contaminants by a Membrane Distillation Enzymatic Bioreactor. *Applied Sciences (Switzerland)*, **2017**, 7, 879	2.6	16
50	Primary green turtle (Chelonia mydas) skin fibroblasts as an in vitro model for assessing genotoxicity and oxidative stress. *Aquatic Toxicology*, **2019**, 207, 13-18	5.1	16
49	Metabolite profiles of striped marsh frog (Limnodynastes peronii) larvae exposed to the anti-androgenic fungicides vinclozolin and propiconazole are consistent with altered steroidogenesis and oxidative stress. *Aquatic Toxicology*, **2018**, 199, 232-239	5.1	15
48	Charting a path towards non-destructive biomarkers in threatened wildlife: A systematic quantitative literature review. *Environmental Pollution*, **2018**, 234, 59-70	9.3	15
47	H NMR-based metabolomics reveals interactive effects between the carrier solvent methanol and a pharmaceutical mixture in an amphibian developmental bioassay with Limnodynastes peronii. *Chemosphere*, **2018**, 199, 372-381	8.4	14
46	Global Transcriptional Analysis of Nontransformed Human Intestinal Epithelial Cells (FHs 74 Int) after Exposure to Selected Drinking Water Disinfection By-Products. *Environmental Health Perspectives*, **2019**, 127, 117006	8.4	14
45	Cytotoxicity of organic and inorganic compounds to primary cell cultures established from internal tissues of Chelonia mydas. *Science of the Total Environment*, **2019**, 664, 958-967	10.2	13

44	Histopathology, vitellogenin and chemical body burden in mosquitofish (Gambusia holbrooki) sampled from six river sites receiving a gradient of stressors. *Science of the Total Environment*, **2018**, 616-617, 1638-1648	10.2	13
43	Considerations when assessing antagonism in vitro: Why standardizing the agonist concentration matters. *Chemosphere*, **2015**, 135, 20-3	8.4	12
42	Evaluating the enantiospecific differences of non-steroidal anti-inflammatory drugs (NSAIDs) using an ecotoxicity bioassay test battery. *Science of the Total Environment*, **2019**, 694, 133659	10.2	12
41	Balancing the budget of environmental estrogen exposure: the contribution of recycled water. *Water Science and Technology*, **2009**, 60, 1003-12	2.2	12
40	Assessing indoor air exposures using passive sampling with bioanalytical methods for estrogenicity and aryl hydrocarbon receptor activity. *Analytical and Bioanalytical Chemistry*, **2009**, 394, 1413-21	4.4	12
39	Assessment of the reproductive-endocrine disrupting potential of chlorine dioxide oxidation products of plant sterols. *Environmental Science & Technology*, **2006**, 40, 2594-600	10.3	12
38	Lessons and guidance for the management of safe drinking water during extreme weather events. *Environmental Science: Water Research and Technology*, **2017**, 3, 262-277	4.2	11
37	Comparative sensitivity of aquatic invertebrate and vertebrate species to wastewater from an operational coal mine in central Queensland, Australia. *Ecotoxicology and Environmental Safety*, **2016**, 129, 1-9	7	11
36	Downstream trends of in vitro bioassay responses in a wastewater effluent-dominated river. *Chemosphere*, **2018**, 212, 182-192	8.4	11
35	Towards Sustainable Environmental Quality: Priority Research Questions for the Australasian Region of Oceania. *Integrated Environmental Assessment and Management*, **2019**, 15, 917-935	2.5	11
34	Quantification of vitellogenin mRNA induction in mosquitofish (Gambusia affinis) by reverse transcription real-time polymerase chain reaction (RT-PCR). *Biomarkers*, **2005**, 10, 429-38	2.6	11
33	Concentrations of legacy persistent organic pollutants and naturally produced MeO-PBDEs in dugongs (Dugong dugon) from Moreton Bay, Australia. *Chemosphere*, **2019**, 229, 500-508	8.4	10
32	Towards the development of standardised sea turtle primary cell cultures for toxicity testing. *Ecotoxicology and Environmental Safety*, **2019**, 173, 63-70	7	10
31	Hypothetical scenario exercises to improve planning and readiness for drinking water quality management during extreme weather events. *Water Research*, **2017**, 111, 100-108	12.5	9
30	Exploring the oxidative stress response mechanism triggered by environmental water samples. *Environmental Sciences: Processes and Impacts*, **2017**, 19, 1126-1133	4.3	9
29	Altered bioenergetics and developmental effects in striped marsh frog (Limnodynastes peronii) tadpoles exposed to UV treated sewage. *Aquatic Toxicology*, **2016**, 175, 30-8	5.1	9
28	Assessing the potential for trace organic contaminants commonly found in Australian rivers to induce vitellogenin in the native rainbowfish (Melanotaenia fluviatilis) and the introduced mosquitofish (Gambusia holbrooki). *Aquatic Toxicology*, **2017**, 185, 105-120	5.1	7
27	Elucidating the performance of an integrated laccase- and persulfate-assisted process for degradation of trace organic contaminants (TrOCs). *Environmental Science: Water Research and Technology*, **2020**, 6, 1069-1082	4.2	7

26	Carbon dots derived from human hair for ppb level chloroform sensing in water. *Sustainable Materials and Technologies*, **2020**, 25, e00159	5.3	7
25	Locomotor and behavioural responses of empire gudgeons (Hypseleotris compressa) exposed to coal mine wastewater. *Chemosphere*, **2016**, 144, 1560-6	8.4	7
24	Chemical and bioanalytical assessment of coal seam gas associated water. *Environmental Chemistry*, **2015**, 12, 267	3.2	7
23	Converting mg/L to Particles/L: Reconciling the Occurrence and Toxicity Literature on Microplastics. *Environmental Science & Technology*, **2021**, 55, 11470-11472	10.3	6
22	Assessing the role of different dissolved organic carbon and bromide concentrations for disinfection by-product formation using chemical analysis and bioanalysis. *Environmental Science and Pollution Research*, **2019**, 26, 17100-17109	5.1	5
21	Parental exposure to the synthetic estrogen 17□ethinylestradiol (EE2) affects offspring development in the Sydney rock oyster, Saccostrea glomerata. *Environmental Pollution*, **2020**, 266, 114994	9.3	5
20	What is driving the NF-B response in environmental water extracts?. *Chemosphere*, **2018**, 210, 645-652	8.4	5
19	In vitro cytotoxicity assessment of a hydraulic fracturing fluid. *Environmental Chemistry*, **2015**, 12, 286	3.2	5
18	Changes in global protein expression in sea turtle cells exposed to common contaminants indicates new biomarkers of chemical exposure. *Science of the Total Environment*, **2021**, 751, 141680	10.2	5
17	Development and application of a simple method to detect toxic chemicals in fruits and vegetables that can be implemented in a rudimentary laboratory setting: A proof of concept study. *Food Control*, **2017**, 73, 1023-1031	6.2	4
16	Assessing species-specific differences for nuclear receptor activation for environmental water extracts. *Water Research*, **2020**, 185, 116247	12.5	4
15	Exposure to estrogenic mixtures results in tissue-specific alterations to the metabolome of oysters. *Aquatic Toxicology*, **2021**, 231, 105722	5.1	4
14	Systematic assessment of data quality and quality assurance/quality control (QA/QC) of current research on microplastics in biosolids and agricultural soils. *Environmental Pollution*, **2021**, 294, 118629	9.3	3
13	Combining analytical and in□vitro techniques for comprehensive assessments of chemical exposure and effect in green sea turtles (Chelonia mydas). *Chemosphere*, **2021**, 274, 129752	8.4	3
12	Bioanalytical Tools in Water Quality Assessment. *Water Intelligence Online*, **2011**, 10, 9781780400778		2
11	Terrestrial dissolved organic matter source affects disinfection by-product formation during water treatment and subsequent toxicity. *Environmental Pollution*, **2021**, 283, 117232	9.3	2
10	Systematic review of reptile reproductive toxicology to inform future research directions on endangered or threatened species, such as sea turtles. *Environmental Pollution*, **2021**, 286, 117470	9.3	2
9	Concentrations of some legacy pollutants have increased in South Australian bottlenose dolphins from 1989 to 2014. *Environmental Research*, **2020**, 189, 109834	7.9	1

8	Effects of coal mine wastewater on locomotor and non-locomotor activities of empire gudgeons (Hypseleotris compressa). *Ecotoxicology and Environmental Safety*, **2016**, 127, 36-42	7	1
7	Deriving safe short-term chemical exposure values (STEV) for drinking water. *Regulatory Toxicology and Pharmacology*, **2020**, 110, 104545	3.4	1
6	Bioanalytical Approaches in Assessing Transformation Products. *ACS Symposium Series*, **2016**, 73-87	0.4	1
5	Anaerobic digestion of sewage sludge has no effect on glucocorticoid and anti-progestagenic activity but increases estrogenicity three-fold. *Chemosphere*, **2022**, 286, 131753	8.4	1
4	Chiral inversion of 2-arylpropionoic acid (2-APA) enantiomers during simulated biological wastewater treatment. *Water Research*, **2021**, 209, 117871	12.5	0
3	Optimisation of an automated high-throughput micronucleus (HiTMiN) assay to measure genotoxicity of environmental contaminants.. *Chemosphere*, **2022**, 298, 134349	8.4	0
2	Letter to the Editor regarding "Microplastics: A review of analytical methods, occurrence and characteristics in food, and potential toxicities to biota" by Bai et al. (2022).. *Science of the Total Environment*, **2022**, 152706	10.2	
1	Estrogenic mixtures induce alterations in lipidomic profiles in the gonads of female oysters. *Chemosphere*, **2021**, 291, 132997	8.4	