Chelsea M Rochman

List of Publications by Year
in descending order

59 papers	12,273 citations	94269 37 h-index	133063 59 g-index
59 all docs	59 docs citations	59 times ranked	8707 citing authors

#	Article	IF	Citations
1	Predicted growth in plastic waste exceeds efforts to mitigate plastic pollution. Science, 2020, 369, 1515-1518.	6.0	1,330
2	Ingested plastic transfers hazardous chemicals to fish and induces hepatic stress. Scientific Reports, 2013, 3, 3263.	1.6	1,266
3	Classify plastic waste as hazardous. Nature, 2013, 494, 169-171.	13.7	1,203
4	Anthropogenic debris in seafood: Plastic debris and fibers from textiles in fish and bivalves sold for human consumption. Scientific Reports, 2015, 5, 14340.	1.6	978
5	Microplastics researchâ€"from sink to source. Science, 2018, 360, 28-29.	6.0	808
6	Rethinking microplastics as a diverse contaminant suite. Environmental Toxicology and Chemistry, 2019, 38, 703-711.	2.2	672
7	Early warning signs of endocrine disruption in adult fish from the ingestion of polyethylene with and without sorbed chemical pollutants from the marine environment. Science of the Total Environment, 2014, 493, 656-661.	3.9	567
8	Long-Term Sorption of Metals Is Similar among Plastic Types: Implications for Plastic Debris in Aquatic Environments. PLoS ONE, 2014, 9, e85433.	1.1	435
9	The ecological impacts of marine debris: unraveling the demonstrated evidence from what is perceived. Ecology, 2016, 97, 302-312.	1.5	401
10	Using the Asian clam as an indicator of microplastic pollution in freshwater ecosystems. Environmental Pollution, 2018, 234, 347-355.	3.7	330
11	Scientific Evidence Supports a Ban on Microbeads. Environmental Science & Technology, 2015, 49, 10759-10761.	4.6	306
12	Polystyrene Plastic: A Source and Sink for Polycyclic Aromatic Hydrocarbons in the Marine Environment. Environmental Science & Technology, 2013, 47, 13976-13984.	4.6	288
13	Long-Term Field Measurement of Sorption of Organic Contaminants to Five Types of Plastic Pellets: Implications for Plastic Marine Debris. Environmental Science & Technology, 2013, 47, 130109073312009.	4.6	256
14	Impacts of temperature and selected chemical digestion methods on microplastic particles. Environmental Toxicology and Chemistry, 2018, 37, 91-98.	2.2	235
15	Microplastics entering northwestern Lake Ontario are diverse and linked to urban sources. Water Research, 2020, 174, 115623.	5.3	206
16	Reporting Guidelines to Increase the Reproducibility and Comparability of Research on Microplastics. Applied Spectroscopy, 2020, 74, 1066-1077.	1.2	196
17	Sampling and Quality Assurance and Quality Control: A Guide for Scientists Investigating the Occurrence of Microplastics Across Matrices. Applied Spectroscopy, 2020, 74, 1099-1125.	1.2	191
18	Polybrominated diphenyl ethers (PBDEs) in fish tissue may be an indicator of plastic contamination in marine habitats. Science of the Total Environment, 2014, 476-477, 622-633.	3.9	185

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19	Microplastic Spectral Classification Needs an Open Source Community: Open Specy to the Rescue!. Analytical Chemistry, 2021, 93, 7543-7548.	3.2	180
20	Plastic pollution in the Arctic. Nature Reviews Earth & Environment, 2022, 3, 323-337.	12.2	161
21	Increasing the Accessibility for Characterizing Microplastics: Introducing New Application-Based and Spectral Libraries of Plastic Particles (SLoPP and SLoPP-E). Analytical Chemistry, 2020, 92, 2443-2451.	3.2	140
22	Critical Review of Processing and Classification Techniques for Images and Spectra in Microplastic Research. Applied Spectroscopy, 2020, 74, 989-1010.	1.2	132
23	Novel method for the extraction and identification of microplastics in ocean trawl and fish gut matrices. Analytical Methods, 2017, 9, 1479-1490.	1.3	130
24	Capturing microfibers â€“ marketed technologies reduce microfiber emissions from washing machines. Marine Pollution Bulletin, 2019, 139, 40-45.	2.3	129
25	Urban Stormwater Runoff: A Major Pathway for Anthropogenic Particles, Black Rubbery Fragments, and Other Types of Microplastics to Urban Receiving Waters. ACS ES&T Water, 2021, 1, 1420-1428.	2.3	126
26	Evidence of Microplastic Translocation in Wild-Caught Fish and Implications for Microplastic Accumulation Dynamics in Food Webs. Environmental Science & Technology, 2021, 55, 12372-12382.	4.6	116
27	Plastic debris and policy: Using current scientific understanding to invoke positive change. Environmental Toxicology and Chemistry, 2016, 35, 1617-1626.	2.2	108
28	Direct and indirect effects of different types of microplastics on freshwater prey (Corbicula) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 T	1.1	108
29	Plastics and Priority Pollutants: A Multiple Stressor in Aquatic Habitats. Environmental Science & Technology, 2013, 47, 2439-2440.	4.6	107
30	Bioretention cells remove microplastics from urban stormwater. Water Research, 2021, 191, 116785.	5.3	96
31	Recommended best practices for collecting, analyzing, and reporting microplastics in environmental media: Lessons learned from comprehensive monitoring of San Francisco Bay. Journal of Hazardous Materials, 2021, 409, 124770.	6.5	92
32	Multiyear Water Quality Performance and Mass Accumulation of PCBs, Mercury, Methylmercury, Copper, and Microplastics in a Bioretention Rain Garden. Journal of Sustainable Water in the Built Environment, 2019, 5, .	0.9	71
33	Î¼ATR-FTIR Spectral Libraries of Plastic Particles (FLOPP and FLOPP-e) for the Analysis of Microplastics. Analytical Chemistry, 2021, 93, 15878-15885.	3.2	55
34	On the harmonization of methods for measuring the occurrence, fate and effects of microplastics. Analytical Methods, 2017, 9, 1324-1325.	1.3	51
35	Microplastics and other anthropogenic particles are prevalent in mussels from San Francisco Bay, and show no correlation with PAHs. Environmental Pollution, 2021, 271, 116260.	3.7	49
36	Biological Responses to Climate Change and Nanoplastics Are Altered in Concert: Full-Factor Screening Reveals Effects of Multiple Stressors on Primary Producers. Environmental Science & Technology, 2020, 54, 2401-2410.	4.6	48

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37	The uptake of microfibers by freshwater Asian clams (Corbicula fluminea) varies based upon physicochemical properties. Chemosphere, 2019, 221, 107-114.	4.2	45
38	Microplastic and other anthropogenic microparticles in water and sediments of Lake Simcoe. Journal of Great Lakes Research, 2021, 47, 180-189.	0.8	45
39	Conservation Needs Diverse Values, Approaches, and Practitioners. Conservation Letters, 2015, 8, 385-387.	2.8	39
40	Microplastic contamination in Great Lakes fish. Conservation Biology, 2022, 36, .	2.4	32
41	Research recommendations to better understand the potential health impacts of microplastics to humans and aquatic ecosystems. Microplastics and Nanoplastics, 2022, 2, .	4.1	31
42	Holistic Assessment of Microplastics and Other Anthropogenic Microdebris in an Urban Bay Sheds Light on Their Sources and Fate. ACS ES&T Water, 2021, 1, 1401-1410.	2.3	29
43	Microplastics: a multidimensional contaminant requires a multidimensional framework for assessing risk. Microplastics and Nanoplastics, 2022, 2, .	4.1	28
44	Rapid fingerprinting of source and environmental microplastics using direct analysis in real time-high resolution mass spectrometry. Analytica Chimica Acta, 2020, 1100, 107-117.	2.6	27
45	Towards Raman Automation for Microplastics: Developing Strategies for Particle Adhesion and Filter Subsampling. Applied Spectroscopy, 2020, 74, 976-988.	1.2	25
46	Association of zoonotic protozoan parasites with microplastics in seawater and implications for human and wildlife health. Scientific Reports, 2022, 12, 6532.	1.6	25
47	No evidence of spherical microplastics (10â€“300 Î¼m) translocation in adult rainbow trout (Oncorhynchus mykiss) after a two-week dietary exposure. PLoS ONE, 2020, 15, e0239128.	1.1	24
48	Effects of Hydrogen Peroxide on Cyanobacterium <i>Microcystis aeruginosa</i> in the Presence of Nanoplastics. ACS ES&T Water, 2021, 1, 1596-1607.	2.3	22
49	The potential of aerial insectivores for monitoring microplastics in terrestrial environments. Science of the Total Environment, 2022, 807, 150453.	3.9	22
50	A living tool for the continued exploration of microplastic toxicity. Microplastics and Nanoplastics, 2022, 2, .	4.1	20
51	Impacts to Larval Fathead Minnows Vary between Preconsumer and Environmental Microplastics. Environmental Toxicology and Chemistry, 2022, 41, 858-868.	2.2	19
52	Washing Machine Filters Reduce Microfiber Emissions: Evidence From a Community-Scale Pilot in Parry Sound, Ontario. Frontiers in Marine Science, 2021, 8, .	1.2	15
53	Risk characterization of microplastics in San Francisco Bay, California. Microplastics and Nanoplastics, 2022, 2, .	4.1	15
54	Aryl hydrocarbon receptor-mediated potencies in field-deployed plastics vary by type of polymer. Environmental Science and Pollution Research, 2019, 26, 9079-9088.	2.7	12

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55	Think Global, Act Local: Local Knowledge Is Critical to Inform Positive Change When It Comes to Microplastics. Environmental Science & Technology, 2021, 55, 4-6.	4.6	12
56	Toxicity of nanoplastics to zooplankton is influenced by temperature, salinity, and natural particulate matter. Environmental Science: Nano, 2022, 9, 2678-2690.	2.2	10
57	Local Monitoring Should Inform Local Solutions: Morphological Assemblages of Microplastics Are Similar within a Pathway, But Relative Total Concentrations Vary Regionally. Environmental Science & Technology, 2022, 56, 9367-9378.	4.6	9
58	Emissions Inventories of Plastic Pollution: A Critical Foundation of an International Agreement to Inform Targets and Quantify Progress. Environmental Science & Technology, 2022, 56, 3309-3312.	4.6	8
59	Kicking Pellet Emissions to the Curb. Integrated Environmental Assessment and Management, 2020, 16, 788-790.	1.6	7