Growing environmental footprint of plastics driven by

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Citation Report

#	Article	IF	Citations
1	Improved sustainability assessment of the G20â€™s supply chains of materials, fuels, and food. Environmental Research Letters, 2022, 17, 034027.	5.2	7
2	How to Estimate Whether Preferential Trade Agreements Contribute to International Environmental Impact Shifting?. SSRN Electronic Journal, 0, , .	0.4	0
3	The plastics integrated assessment model (PLAIA): Assessing emission mitigation pathways and circular economy strategies for the plastics sector. MethodsX, 2022, 9, 101666.	1.6	8
4	Going full circle with fibre. Food Science and Technology, 2022, 36, 28-32.	0.1	0
5	Surging plastic use is fed by coal power â€” with deadly results. Nature, 2021, 600, 362-362.	27.8	0
6	Plastics and climate changeâ€”Breaking carbon lock-ins through three mitigation pathways. One Earth, 2022, 5, 361-376.	6.8	52
7	A global plastic treaty must cap production. Science, 2022, 376, 469-470.	12.6	80
8	Alternative Mulches for Sustainable Greenhouse Tomato Production. Agronomy, 2022, 12, 1333.	3.0	7
9	Review Study of Energy Efficiency Measures in Favor of Reducing Carbon Footprint of Electricity and Power, Buildings, and Transportation. Circular Economy and Sustainability, 2023, 3, 447-474.	5.5	3
10	Turning Food Protein Waste into Sustainable Technologies. Chemical Reviews, 2023, 123, 2112-2154.	47.7	58
11	In situ laboratory for plastic degradation in the Red Sea. Scientific Reports, 2022, 12, .	3.3	5
12	Sampling Scheme Conception for Pretreated Polyolefin Waste Based on a Review of the Available Standard Procedures. Polymers, 2022, 14, 3450.	4.5	6
13	Zeolite greenly synthesized from fly ash and its resource utilization: A review. Science of the Total Environment, 2022, 851, 158182.	8.0	25
14	Microbial electrosynthesis from carbon dioxide feedstock linked to yeast growth for the production of high-value isoprenoids. Bioresource Technology, 2022, 363, 127906.	9.6	5
15	Are Consumers Willing to Pay for Industrial Decarbonisation? Evidence from a Discrete Choice Experiment on Green Plastics. SSRN Electronic Journal, 0, , .	0.4	0
16	Achieving Global Sustainability Through Sustainable Product Life Cycle. IFIP Advances in Information and Communication Technology, 2022, , 391-398.	0.7	3
17	Universal Broadband Assessment of Low Earth Orbit Satellite Constellations: Evaluating Capacity, Coverage, Cost, and Environmental Emissions. SSRN Electronic Journal, 0, , .	0.4	1
18	Announcing the Minderoo â€“ Monaco Commission on Plastics and Human Health. Annals of Global Health, 2022, 88, .	2.0	6

#	Article	IF	Citations
19	Designing a Recycling Network for the Circular Economy of Plastics with Different Multi-Criteria Optimization Approaches. Sustainability, 2022, 14, 10913.	3.2	5
20	Highly reinforced and degradable lignocellulose biocomposites by polymerization of new polyester oligomers. Nature Communications, 2022, 13, .	12.8	14
21	Achieving sustainable production and consumption of virgin plastic polymers. Frontiers in Marine Science, 0, 9, .	2.5	1
22	Emerging Technologies Supporting the Transition to a Circular Economy in the Plastic Materials Value Chain. Circular Economy and Sustainability, 0, , .	5.5	1
23	Life cycle environmental impacts of consumer packaging products in Japan. Risk Analysis, 0, , .	2.7	1
24	Rapeseed Cake Valorization into Bioplastics Based on Protein Amyloid Fibrils. Advanced Materials Technologies, 2023, 8, .	5.8	6
25	Environmental Impact of Polymer Fiber Manufacture. Macromolecular Materials and Engineering, 2022, 307, .	3.6	6
26	Hotspots of Mining-Related Biodiversity Loss in Global Supply Chains and the Potential for Reduction through Renewable Electricity. Environmental Science & Technology, 2022, 56, 16357-16368.	10.0	6
27	Discernment of synergism in co-pyrolysis of HDPE and PP waste plastics for production of pyro-oil: Mechanistic investigation with economic analysis and health risk assessment. Chemical Engineering Research and Design, 2023, 169, 107-131.	5.6	13
28	Implications of plastic pollution on global marine carbon cycling and climate. Emerging Topics in Life Sciences, 0, , .	2.6	8
29	Polymers without Petrochemicals: Sustainable Routes to Conventional Monomers. Chemical Reviews, 2023, 123, 2609-2734.	47.7	53
30	Reply to: â€œDermatology's call to emergency action on climate changeâ€• Journal of the European Academy of Dermatology and Venereology, 2023, 37, .	2.4	0
31	Biodegradation of macro- and micro-plastics in environment: A review on mechanism, toxicity, and future perspectives. Science of the Total Environment, 2023, 858, 160108.	8.0	40
32	A new treaty process offers hope to end plastic pollution. Nature Reviews Earth & Environment, 2022, 3, 726-727.	29.7	14
33	Prioritizing plastic pollution. Nature Reviews Earth & Environment, 2022, 3, 719-719.	29.7	0
34	Plastic Waste Upcycling: A Sustainable Solution for Waste Management, Product Development, and Circular Economy. Polymers, 2022, 14, 4788.	4.5	22
35	How does the â€œZero-waste Cityâ€•strategy contribute to carbon footprint reduction in China?. Waste Management, 2023, 156, 227-235.	7.4	12
36	How to estimate whether preferential trade agreements contribute to international environmental impact shifting. A new methodology and empirical illustration for Switzerland. Ecological Economics, 2023, 205, 107690.	5.7	0

#	Article	IF	Citations
37	Comparative assessment of environmental impacts of 1st generation (corn feedstock) and 3rd generation (carbon dioxide feedstock) PHA production pathways using life cycle assessment. Science of the Total Environment, 2023, 863, 160991.	8.0	9
38	Plastic futures and their CO2 emissions. Nature, 2022, 612, 272-276.	27.8	107
39	Towards a Circular Economy: Study of the Mechanical, Thermal, and Electrical Properties of Recycled Polypropylene and Their Composite Materials. Polymers, 2022, 14, 5482.	4.5	10
40	Identification of microplastics from urban informal solid waste landfill soil; MP associations with COD and chloride. Water Science and Technology, 2023, 87, 115-129.	2.5	6
41	Challenges and Strategies for Bio-Based and Biodegradable Plastic Waste Management in Europe. Sustainability, 2022, 14, 16476.	3.2	8
42	Comprehensive study of the underground hydrogen storage potential in the depleted offshore Tapti-gas field. International Journal of Hydrogen Energy, 2023, 48, 12396-12409.	7.1	6
43	Soil Bioplastic Mulches for Agroecosystem Sustainability: A Comprehensive Review. Agriculture (Switzerland), 2023, 13, 197.	3.1	10
44	Upcycling waste plastics to fabricate lightweight, waterproof, and carbonation resistant cementitious materials with polymer-nano silica hybrids. Materials Today Sustainability, 2023, 21, 100325.	4.1	4
45	Assessing the Impact of the Recent Unprecedented World Events on the Economic and Environmental Conditions of Saudi Arabia. Sustainability, 2023, 15, 1610.	3.2	1
46	Replacing all petroleum-based chemical products with natural biomass-based chemical products: a tutorial review. , 2023, 1, 179-212.		31
47	Exploitation of bacterial strains for microplastics (LDPE) biodegradation. Chemosphere, 2023, 316, 137845.	8.2	13
48	Urban mining: The relevance of information, transaction costs and externalities. Ecological Economics, 2023, 205, 107735.	5.7	0
49	Material footprints in global value chains with consideration of multinational enterprises. Resources, Conservation and Recycling, 2023, 190, 106828.	10.8	7
50	Ligninâ€Based Materials for Additive Manufacturing: Chemistry, Processing, Structures, Properties, and Applications. Advanced Science, 2023, 10, .	11.2	22
51	Valorization of waste biodegradable polyester for methyl methacrylate production. Nature Sustainability, 2023, 6, 712-719.	23.7	23
52	Modeling consumer preference on refillable shampoo bottles for circular economy in Metro Manila, Philippines. Cleaner and Responsible Consumption, 2023, 9, 100118.	3.0	3
53	Low-cost activated carbon from the pyrolysis of post-consumer plastic waste and the application in CO2 capture. Chemical Engineering Research and Design, 2023, 173, 558-566.	5.6	19
54	Effect of polyethylene, polyamide, and polylactic acid microplastics on Cr accumulation and toxicity to cucumber (Cucumis sativus L.) in hydroponics. Journal of Hazardous Materials, 2023, 450, 131022.	12.4	10

#	Article	IF	Citations
55	Roadmap to the sustainable synthesis of polymers: From the perspective of CO2 upcycling. Progress in Materials Science, 2023, 135, 101103.	32.8	5
56	Greenhouse gas emissions, land use and employment in a future global bioplastics economy. Resources, Conservation and Recycling, 2023, 193, 106950.	10.8	2
57	Circular transformation in plastic management lessens the carbon footprint of the plastic industry. Materials Today Sustainability, 2023, 22, 100365.	4.1	8
58	Finance for fossils â€“ The role of public financing in expanding petrochemicals. Global Environmental Change, 2023, 80, 102657.	7.8	4
59	The global warming potential and the material utility of PET and bio-based PEF bottles over multiple recycling trips. Journal of Cleaner Production, 2023, 395, 136426.	9.3	12
60	The role of biocatalysts in the synthesis of graphene nanosheets from sub-bituminous coal. Materials Science for Energy Technologies, 2023, 6, 282-289.	1.8	0
61	Upcycling plastic waste to carbon materials for electrochemical energy storage and conversion. Chemical Engineering Journal, 2023, 461, 141962.	12.7	15
62	Towards circular plastics within planetary boundaries. Nature Sustainability, 2023, 6, 599-610.	23.7	47
63	A hybrid deep learning framework driven by data and reaction mechanism for predicting sustainable glycolic acid production performance. AICHE Journal, 2023, 69, .	3.6	3
65	Supply chain plastic footprint analysis. , 2023, 2, 100037.		2
66	Thermal gelation of cellulose based suspensions. Cellulose, 2023, 30, 4215-4223.	4.9	2
67	Sustainable Materials from Waste Paper: Thermal and Acoustical Characterization. Applied Sciences (Switzerland), 2023, 13, 4710.	2.5	1
68	Hybrid Monomer Design Synergizing Property Tradeâ€offs in Developing Polymers for Circularity and Performance. Angewandte Chemie, 0, , .	2.0	0
69	Hybrid Monomer Design Synergizing Property Tradeâ€offs in Developing Polymers for Circularity and Performance. Angewandte Chemie - International Edition, 2023, 62, .	13.8	10
70	Net-zero emissions chemical industry in a world of limited resources. One Earth, 2023, 6, 682-704.	6.8	20
71	The Isolation, Screening, and Characterization of Polyhydroxyalkanoate-Producing Bacteria from Hypersaline Lakes in Kenya. , 2023, 2, 81-97.		1
72	Taxing Away the Takeout Trash? Evidence from a Local Packaging Tax in Germany. SSRN Electronic Journal, 0, , .	0.4	0
73	Estimating the dynamic environmental footprints of the global finance and business sector towards sustainable development goals. Sustainable Development, 2023, 31, 3144-3160.	12.5	2

#	Article	IF	Citations
74	Trash to treasure: electrocatalytic upcycling of polyethylene terephthalate (PET) microplastic to value-added products by Mn0.1Ni0.9Co2O4-Î´ RSFs spinel. Journal of Hazardous Materials, 2023, 457, 131743.	12.4	4
75	Ending fossil-based growth: Confronting the political economy of petrochemical plastics. One Earth, 2023, 6, 607-619.	6.8	12
76	Polymer Recycling Techniques. Engineering Materials, 2023, , 199-216.	0.6	0
77	Strawberry supply chain: energy and environmental assessment from a field study and comparison of different packaging materials. International Journal of Refrigeration, 2023, , .	3.4	0
78	Tracing metal footprints via global renewable power value chains. Nature Communications, 2023, 14, .	12.8	7
79	Effects of Circularity Interventions in the European Plastic Packaging Sector. Environmental Science & Technology, 2023, 57, 9984-9995.	10.0	1
80	Analysis of Carbon Emissions and Emission Reduction from Coal-Fired Power Plants Based on Dual Carbon Targets. Sustainability, 2023, 15, 7369.	3.2	5
81	The bioplastics market: History, commercialization trends, and the new eco-consumer. , 2023, , 261-280.		1
82	Potential effects of micro- and nanoplastics on phyllosphere microorganisms and their evolutionary and ecological responses. Science of the Total Environment, 2023, 884, 163760.	8.0	8
83	Potentials and limits of mechanical plastic recycling. Journal of Industrial Ecology, 2023, 27, 1043-1059.	5.5	7
84	Bioavailability of micro/nanoplastics and their associated polycyclic aromatic hydrocarbons to Daphnia Magna: Role of ingestion and egestion of plastics. Science of the Total Environment, 2023, 890, 164171.	8.0	1
85	Strategies for multi-step carbon dioxide upgrading and valorization. Cell Reports Physical Science, 2023, 4, 101472.	5.6	0
86	Quantifying plastic use and waste footprints in SIDS: Application to Seychelles. Journal of Cleaner Production, 2023, 417, 138018.	9.3	2
88	Product-based approach to sustainable plastic management focusing on consumersâ€™ necessity of 50 daily-use products in Japan. Journal of Cleaner Production, 2023, 418, 138234.	9.3	0
89	Nachhaltige Arbeitsweisen in der Pflege â€“ Pflegeprozesse neu denken und Konsum reduzieren. The Springer Reference Pflegerapie, Gesundheit, 2023, , 1-9.	0.3	0
90	Selective oxidative upgrade of waste polystyrene plastics by nitric acid to produce benzoic acid. Green Chemistry, 2023, 25, 6717-6727.	9.0	1
91	High release of isotopically depleted CO2 and CH4 from the photo-degradation of plastic: A pilot laboratory study. Physics and Chemistry of the Earth, 2023, 132, 103474.	2.9	1
92	Biodegradable composite films based on mucilage from Opuntia ficus-indica (Cactaceae): Microstructural, functional and thermal properties. International Journal of Biological Macromolecules, 2023, 252, 126456.	7.5	1

#	Article	IF	Citations
93	Plastic waste impact and biotechnology: Exploring polymer degradation, microbial role, and sustainable development implications. Bioresource Technology Reports, 2023, 24, 101606.	2.7	4
94	Molecular Characterization of Plastic Waste Using Standoff Photothermal Spectroscopy. , 2023, 2, 043401.		0
95	Plastics can be used more sustainably in agriculture. Communications Earth & Environment, 2023, 4, .	6.8	14
96	A brief review on the mechanisms and approaches of silk spinning-inspired biofabrication. Frontiers in Bioengineering and Biotechnology, 0, 11, .	4.1	0
97	Circular waste management: Superworms as a sustainable solution for biodegradable plastic degradation and resource recovery. Waste Management, 2023, 171, 568-579.	7.4	2
98	The race to net-zero emissions: Can green technological innovation and environmental regulation be the potential pathway to net-zero emissions?. Technology in Society, 2023, 75, 102364.	9.4	15
99	Sub-micro- and nano-sized polyethylene terephthalate deconstruction with engineered protein nanopores. Nature Catalysis, 2023, 6, 1174-1185.	34.4	3
101	Turning the tanker? Exploring the preconditions for change in the global petrochemical industry. Energy Research and Social Science, 2023, 104, 103256.	6.4	0
102	Chemoenzymatic Photoreforming: A Sustainable Approach for Solar Fuel Generation from Plastic Feedstocks. Journal of the American Chemical Society, 2023, 145, 20355-20364.	13.7	4
103	Moving towards plastic waste circularity: Redefining extended producer responsibility with externality consideration via P-graph-life cycle optimization framework. Resources, Conservation and Recycling, 2023, 198, 107187.	10.8	1
104	Editorial overview: Toward cruising speed for circular plastics. Current Opinion in Green and Sustainable Chemistry, 2023, 44, 100872.	5.9	0
105	Carbon feasibility of terminating plastic waste leakage by landfill mining: A case study based on practical projects in China. Science of the Total Environment, 2024, 906, 167461.	8.0	2
106	Accelerating the Biodegradation of Poly(lactic acid) through the Inclusion of Plant Fibers: A Review of Recent Advances. ACS Sustainable Chemistry and Engineering, 2023, 11, 15146-15170.	6.7	1
107	Unpacking bio-based alternatives to ethylene production in Brazil, Europe, and the United States: A comparative life cycle assessment. Journal of Cleaner Production, 2023, 428, 139376.	9.3	0
108	The global plastics treaty: why is it needed?. Lancet, The, 2023, 402, 2274-2276.	13.7	1
109	Impact of plastic pollution on atmospheric carbon dioxide. Facets, 2023, 8, 1-7.	2.4	1
111	Organic amendment in climate change mitigation: Challenges in an era of micro- and nanoplastics. Science of the Total Environment, 2024, 907, 168035.	8.0	3
112	The Potential of Bio-Based Polylactic Acid (PLA) as an Alternative in Reusable Food Containers: A Review. Sustainability, 2023, 15, 15312.	3.2	1

#	Article	IF	Citations
113	Chitin-based pulps: Structure-property relationships and environmental sustainability. Carbohydrate Polymers, 2024, 325, 121561.	10.2	1
114	A broad horizon for sustainable catalytic oxidation of microplastics. Environmental Pollution, 2024, 340, 122835.	7.5	2
115	Advances in enzymatic and organismal technologies for the recycling and upcycling of petroleum-derived plastic waste. Current Opinion in Biotechnology, 2023, 84, 103021.	6.6	0
116	On the role of system integration in plastic waste management. Resources, Conservation and Recycling, 2024, 201, 107295.	10.8	0
117	Electrochemical Câ^'H/Câ^'C Bond Oxygenation: A Potential Technology for Plastic Depolymerization. Chemical Record, 0, , .	5.8	0
118	Concentrated Sulfuric Acid as a Catalyst for Chemical Recycling of Polycarbonate in Water. Waste and Biomass Valorization, 0, , .	3.4	0
119	Free radical (Co)Polymerization of aromatic vinyl monomers derived from vanillin. European Polymer Journal, 2023, 201, 112546.	5.4	1
120	Polyhydroxyurethanes from Biobased Monomers and <scp>CO₂</scp>: A Bridge between Sustainable Chemistry and <scp>CO₂</scp> Utilization^{â€}. Chinese Journal of Chemistry, 2024, 42, 652-685.	4.9	0
121	Cytotoxicity and Inflammatory Effects of Chitin Nanofibrils Isolated from Fungi. Biomacromolecules, 2023, 24, 5737-5748.	5.4	1
122	Life Cycle Assessment in a Nutshellâ€"Best Practices and Status Quo for the Plastic Sector. Macromolecular Rapid Communications, 0, , .	3.9	0
123	Industrial perspective on the current status of carbon capture application in Chinaâ€™s nonpower industries. Separation and Purification Technology, 2024, 334, 125993.	7.9	0
124	Hydrothermal carbonization of plastic waste: A review of its potential in alternative energy applications. Fuel Communications, 2024, 18, 100103.	5.2	0
126	Mineral rents, natural resources depletion, and ecological footprint nexus in high emitting countries: Panel GLM analysis. Resources Policy, 2024, 89, 104472.	9.6	1
127	Governance and Socio-Ecological Aspects of Plastics Pollution in Coastal and Marine Environments. , 2024, , 765-799.		0
128	Environmental impacts of a digital health and well-being service in elderly living schemes. Cleaner Environmental Systems, 2024, 12, 100161.	4.2	1
129	Environmental Sustainability of Family Firms: A Meta-Analysis of Handprint and Footprint. Entrepreneurship Theory and Practice, 0, , .	10.2	0
130	Assessing the Impact of Plastics. , 2024, , 113-129.		0
131	Downscaling of environmental indicators: A review. Science of the Total Environment, 2024, 916, 170251.	8.0	0

#	Article	IF	Citations
132	Societyâ€™s material stocks as carbon pool: an economy-wide quantification of global carbon stocks from 1900â€“2015. Environmental Research Letters, 2024, 19, 024051.	5.2	0
133	Recycled polymer: Green roads for polyester plastics. , 2024, 2, 1-11.		0
134	Emerging green approaches for valorization of plastics with saturated carbon backbones. Trends in Chemistry, 2024, 6, 100-114.	8.5	0
135	From Soy Waste to Bioplastics: Industrial Proof of Concept. Biomacromolecules, 2024, 25, 2033-2040.	5.4	0
136	Exploring the Potential of Amino-Functionalized Zeolite Series/H₃PO₄-Biochar for Environmental Microplastic Removal. Industrial & Engineering Chemistry Research, 2024, 63, 3947-3961.	3.7	0
138	A Unified View of Carbon Neutrality: Solar-Driven Selective Upcycling of Waste Plastics. Transactions of Tianjin University, 2024, 30, 1-26.	6.4	0
139	An upcycling bioprocess for sustainable aviation fuel production from food waste-derived greenhouse gases: Life cycle assessment and techno-economic analysis. Chemical Engineering Journal, 2024, 486, 150242.	12.7	0
140	Role of Microplastics in Global Warming and Climate Change: A Review. Water, Air, and Soil Pollution, 2024, 235, .	2.4	0
141	Integrating aerosol emissions of forest biomass into a life cycle assessment of forest-based production. Biomass and Bioenergy, 2024, 183, 107156.	5.7	0
143	Green manufacturing process design for infusible acrylic resin composites: A data-guided life cycle management model incorporating material-process-property-energy-emission relationships. Composites Part A: Applied Science and Manufacturing, 2024, 181, 108146.	7.6	0
144	Unveiling the data: An analysis of plastic waste with emphasis on the countries of the EÂ³UDRES2 alliance. Heliyon, 2024, 10, e28375.	3.2	0
145	Integrating chemical and biological technologies in upcycling plastic waste to medium-chain Î±,Ï‰-Diacid. Journal of Cleaner Production, 2024, 451, 141890.	9.3	0
146	Kunststoff in der Spieleproduktion. , 2024, , 1-9.		0
147	The Overlooked Potential of Sulfated Zirconia: Reexamining Solid Superacidity Toward the Controlled Depolymerization of Polyolefins. Langmuir, 2024, 40, 6612-6653.	3.5	0
148	Enhancing methane production potential of biodegradable plastics by hydrothermal pretreatment. Environmental Technology and Innovation, 2024, 34, 103599.	6.1	0