DESCRIPTION

*Environmental Pollution* is an international peer-reviewed journal that publishes high quality research papers and review articles about all aspects of environmental pollution and its effects on ecosystems and human health. The journal welcomes high-quality *process-oriented and hypothesis-based* submissions that report results from original and novel research and contribute new knowledge to help address problems related to environmental pollution at a regional or global scale.

Subject areas include, but are not limited to:
- Sources and occurrences of pollutants that are clearly defined and measured in *environmental compartments, food and food-related items, and human bodies*;
- Interlinks between *contaminant exposure* and biological, ecological, and human health effects, including those of climate change;
- Contaminants of *emerging concerns* (including but not limited to antibiotic resistant microorganisms or genes, microplastics/nanoplastics, electronic wastes, light, and noise) and/or their biological, ecological, or human health effects;
- Laboratory and field studies on the remediation/mitigation of environmental pollution *via new techniques and with clear links to biological, ecological, or human health effects*;
- *Modeling of pollution processes, patterns, or trends* that is of clear environmental and/or human health interest;
- *New techniques* that measure and examine environmental occurrences, transport, behavior, and effects of pollutants within the environment or the laboratory, provided that they can be clearly used to address problems within *regional or global environmental compartments*.

Papers focusing on the following areas are likely to be returned to the authors without review:
- Routine surveys or monitoring programs primarily of local or regional interest;
- Descriptions of well-known contaminants, such as legacy pollutants, in yet another location;
- Studies relating to waste treatment that do not have specific relevance to pollution within the environment;
- Synthesis/fabrication of new materials solely for remediation and/or mitigation of pollution without any direct environmental relevance;
- Nitrogen or phosphorus deposition or biogeochemical processes with little or no relation to environmental consequences and/or climate change;
- Studies on eutrophication and secondary pollution by eutrophication without illuminating their governing mechanisms and factors.
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AUDIENCE

Pollution research workers including chemists, toxicologists, environmentalists, conservationists, botanists, marine scientists, ecologists, biologists.

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Eddy Zeng, Jinan University, Guangzhou, China
Persistent organic pollutants; Bioaccumulation; Human exposure; Health risk assessment; Inter-compartmental diffusion flux; Passive sampling; Wet and dry deposition

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Editors
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Environmental chemistry; Analytical chemistry; Ecotoxicology; Persistent organic pollutants; Flame retardants; Pesticides; Mass spectrometry; Gas/liquid chromatography.
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Environmental Toxicology; Chemical Carcinogenesis; Epigenetic Regulation; Biomarkers
Payam Dadvand, Barcelona Institute for Global Health, Barcelona, Spain
Epidemiological studies on the health effects of environmental factors.
Maria Cristina Fossi, University of Siena, Siena, Italy
Marine Pollution; Persistent Organic Contaminants; Aquatic Toxicology; Microplastic; Plastic, Marine Litter; Ecotoxicological biomarkers; Marine Mammals; Large marine vertebrates; Endocrine disruptors.
Sarah Harmon, University of South Carolina Aiken, Aiken, South Carolina, United States
Aquatic toxicology; Water pollution; Heavy metals toxicity; Fecal coliform pollution; Mercury toxicity.
Markus Hauck, University of Freiburg Faculty of Environment and Natural Resources, Freiburg, Germany
Global change ecology; Climate warming; Eutrophication; Acidic deposition; Heavy metals in terrestrial ecosystems; Land use; Lichen biology; Forest ecology

**Pavlos Kassomenos**, University of Ioannina, Department of Physics, Laboratory of Meteorology, Ioannina, Greece

Air pollution, Meteorology, Environmental health, Climate change, Particulates, Ozone, Bioaerosols, Dust transportation, Vehicle emissions, Noise

**Klaus Kümmeter**, Leuphana University of Lüneburg Institute for Sustainable and Environmental Chemistry, Lüneburg, Germany

Sustainable Chemistry, Green Chemistry, Green and Sustainable Pharmacy, Resources, Benign by Design, Environmental Chemistry, Time and sustainability

**Bernd Nowack**, Empa Technology and Society Laboratory, St Gallen, Switzerland

Nanomaterials, nanoparticles, microplastics, soil pollution, environmental risk assessment, life cycle assessment, chelating agents

**Yong Sik Ok**, Korea University, Korea Biochar Research Center, Chuncheon, Korea, Republic of

Biochar, Resilience, Soil remediation, Biomass, Bioenergy

**Jörg Rinklebe**, University of Wuppertal, Wuppertal, Germany

Soils, sediments, waters, plants, and their pollutions (in particular trace elements and nutrients) and linked biogeochemical issues with a special focus in redox chemistry; Remediation of soils and soil microbiology.

**Philip Smith**, TEXAS TECH UNIVERSITY, Lubbock, Texas, United States

Ecotoxicology, ecological risk assessment, wildlife toxicology.

**Admir Crésio Targino**, Federal Technological University of Parana Department of Physics, Londrina, Brazil

Air pollution in urban environments, Personal exposure to air pollutants, Urban climate, Aerosol measurement instrumentation, Short-lived climate pollutants, Long-range atmospheric transport

**Wen-Xiong Wang**, Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong

Metals, Ecotoxicology, Pollution, Biogeochemistry, Nanotoxicology

**Charles Wong**, Southern California Coastal Water Research Project, Costa Mesa, California, United States

Environmental organic chemistry, persistent organic chemicals, pharmaceuticals and personal care products, metabolites and transformation products, environmental/analytical chemistry, passive samplers, wastewater, ecotoxicology, bioaccumulation and food web interactions.

**Baoshan Xing**, University of Massachusetts Amherst Stockbridge School of Agriculture, Amherst, Massachusetts, United States

Engineered Nanoparticles; Organic Contaminants; Biochar; Soil Organic Matter; Sorption Of Organic Chemicals; nano/microplastic particles

**Editorial Board**

**Dula Amarasiriwardena**, Hampshire College, Amherst, Massachusetts, United States

Metal Pollution, environmental trace metal determination (ICP-MS, LA-ICP-MS), metal chemical speciation, toxic metals in soils, tissue level, elemental bioimaging, nanoparticles in environment, environmental remediation-metals, humic substances in the environment.

**Lian-Jun Bao**, Jinan University, Guangzhou, China

E-waste, flame retardants, organic chemicals, PAHs, microplastics.

**Allen Barker**, University of Massachusetts Amherst Department of Plant Soil and Insect Sciences, Amherst, Massachusetts, United States

**Nigel Bell**, Imperial College London, London, United Kingdom

Effects of air pollution on managed and natural ecosystems; radioecology; waste management.

**Man Yu Bon**, The Education University of Hong Kong, New Territories, Hong Kong

Persistent toxic substances; Soil contamination; Environmental pollution of electronic waste; Health risk assessments; Recycling of food waste

**Juergen Burkhardt**, University of Bonn, Germany

**Art Chappelka**, Auburn University, Auburn, Alabama, United States

Air pollution and global climate effects to terrestrial ecosystems; Native plant community responses (shifts in diversity) to air pollutants and global climate change; Plant-stress-air pollution/global climate change interactions; Urban ecology and ecosystem services

**Alessandra De Marco**, ENEA Casaccia Research Centre, Santa Maria di Galeria, Italy

Impacts of air pollution on vegetation, with particular interest on ozone and nitrogen deposition; climate change and air pollution interactions and their synergistic impacts on ecosystems; integrated assessment modelling for evaluating impacts of policies and measures to reduce air pollution; nitrogen cycle and nitrogen budget and their importance in agricultural field

**Jean-Pierre Desforges**, Aarhus University, Aarhus, Denmark

Marine mammals, immunotoxicity, ecologic modeling, population dynamics

**Marisa Domingos**, Brazilian Association of Environmental Mutagenesis and Genomics, Monte Alegre, Ribeirão Preto, Brazil
Environmental pollution and climatic change effects on natural vegetation, particularly in the tropics and subtropics, air-plant-soil interactions in polluted terrestrial ecosystems, physiologic, metabolic, structural/ultrastructural markers of increased plant tolerance against air pollutants and other environmental stressors, disturbances on nutrient dynamics in polluted terrestrial ecosystems, physiognomic/landscape disturbances in polluted terrestrial ecosystems, the search of innovative biomonitoring technics for evaluating risks posed by air pollutant, ozone, nitrogen and sulfur oxides, particulate matter, fluorine, trace metals, polycyclic aromatic hydrocarbons

Paulo Renato Dorneles, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil

Zafar Fatmi, Aga Khan University, Karachi, Pakistan

Bin Gao, University of Florida, Gainesville, Florida, United States

Martin Hansen, Aarhus University, Aarhus, Denmark

Frank von Hippel, Northern Arizona University, Flagstaff, Arizona, United States

Deyi Hou, Tsinghua University, Beijing, China

Magali Houde, Environment and Climate Change Canada, Downsview, Ontario, Canada

Magali Houde, Environment and Climate Change Canada, Downsview, Ontario, Canada

M.P. Jonathan, National Polytechnic Institute, Ciudad de Mexico, Mexico

Harri Kankaanpaa, Marine Research Institute, HELSINKI, Finland

Haider Khwaja, New York State Department of Health, Albany, New York, United States

Chunyang Liao, Yantai Institute of Coastal Zone Research, Yantai, China

Daohui Lin, Zhejiang University, Hangzhou, China

Rainer Lohmann, University of Rhode Island Coastal Institute, Narragansett, Rhode Island, United States

Kunihiko Nakai, Tohoku University, Sendai, Japan
Heavy metals, persistent organic pollutants, epidemiology, birth cohort studies, risk assessment/analysis, methylmercury, Minamata convention

**Willie Peijnenburg**, Leiden University Institute of Environmental Sciences, Leiden, Netherlands
Risk assessment; Ecological risk assessment; Environmental fate and effect assessment; Nanoparticles; Bioavailability; Metals; Organics; Quantitative structure-activity relationships (QSARs); Transformation of chemical substances; Biodegradation; Abiotic transformations

**Elijah J. Petersen**, National Institute of Standards and Technology, Cell Systems Science Group, Gaithersburg, Maryland, United States
Nanomaterials, carbon nanomaterials, standardization, nanopoecotoxicity, carbon nanotubes.

**Stergios Pirintsos**, University of Crete Voutes Campus, Iraklion, Crete, Greece
Biomonitoring of air pollution, trace elements and nitrogen using lichens, climate change issues and lichens, lichens and hydrogen production, lichen physiology and pollution, sensitivity issues of lichens, lichen diversity and vegetation in Mediterranean ecosystems.

**Hakan Pleijel**, University of Gothenburg, Gothenburg, Sweden
Ozone (effects on vegetation), carbon dioxide (effects on vegetation), urban ecology (especially air pollution in relation to vegetation), temporal and spatial variation in air pollution exposure, crops (especially effects of air pollutants on growth and nutrient content), deposition of air pollutants, weather and climate dependence of air pollution, climate change effects on crops.

**Markus Puschenreiter**, University of Natural Resources and Life Sciences Vienna, Wien, Austria
Heavy metals/trace elements in soils and plants, rhizosphere processes involved in metal/trace element acquisition, soil remediation technologies / phytoremediation

**Sabry M. Shaheen**, University of Wuppertal, Wuppertal, Germany
Heavy metals, trace elements, soil and environmental science, waste management, risk assessment.

**Richard Shore**, Centre for Ecology & Hydrology Lancaster Site, Lancaster, United Kingdom

**Stefania Squizzato**, University of Rochester, Rochester, New York, United States
Atmospheric Sciences, focusing on the identification of sources in different PM fractions, application of statistical tools to the study of air pollution, particulate matter sampling and analytical determination of inorganic composition using IC, ICP-OES and ICP-MS

**John Ssempebwa**, Makerere University, Kampala, Uganda
Environmental pollution, PAHs, water and sanitation, occupational health

**Daniel Tsang**, The Hong Kong Polytechnic University Department of Civil and Environmental Engineering, Hong Kong, Hong Kong

**Jason Urine**, University of Kentucky, Lexington, Kentucky, United States
Nanomaterials, metals, soils, contaminant fate, bioavailability, agriculture, ecosystem services, radionuclides, synchrotron methods

**Doris Vetterlein**, Helmholtz Centre for Environmental Research UFZ Department of Soil System Research, Halle, Germany
Nanotechnology, food safety, bioremediation and phytoremediation.

**Courtney Waugh**, Norwegian University of Science and Technology, Trondheim, Norway
Toxicology, disease and immunology of wild, captive and domestic animals

**Yanhong Wei**, Sun Yat-Sen University, Guangzhou, China
Persistent organic pollutants, zebrafish, cardiovascular toxicology, developmental toxicology, toxicity pathways

**Jason White**, Connecticut Agricultural Experiment Station, New Haven, Connecticut, United States
Nanotoxicology, food safety, bioremediation and phytoremediation.

**Paul Williams**, Chinese Academy of Sciences, Beijing, China
Toxic trace elements, 2D high-resolution chemical imaging, rhizosphere chemistry, soil-plant interactions, diffusive gradients in thin films (DGT), arsenic/selenium biogeochemistry, bioavailability of metals, human health impacts of arsenic, cadmium and lead, urban & sustainable agriculture, advanced analytical approaches for contaminant quantification, soil & water pollution.

**Feng Xiao**, University of North Dakota, Grand Forks, North Dakota, United States
Perfluorochemicals (PFCs) and perfluoroalkyl substances (PFASs); Perfluorooctanoate (PFOA) and perfluorooctane sulfonate (PFOS); Biochar, char, soot, black carbon, and activated carbon, absorption, water chemistry, drinking-water treatment, emerging contaminants and environmental monitoring, geographic Information system; exploratory data analysis; exposure assessment.

**Scott Young**, University of Nottingham, Nottingham, United Kingdom
Bioavailability, speciation and mobility of trace metals and radioisotopes in the environment and specifically with the geochemical controls over trace element deficiency and toxicity.
Yunjiang Yu, South China Institute of Environmental Science, Guangzhou, China
Environmental occurrence and fate of emerging contaminants, ecological toxicology of pollutants, risk assessment of chemicals

Shuzhen Zhang, Chinese Academy of Sciences, Beijing, China
soil contamination, Sorption/desorption of organic contaminants, Bioaccumulation and transformation of organic contaminants in the terrestrial environment, Applications of synchrotron-based spectroscopy techniques in environmental chemistry, NOM analysis and effects on contaminant behaviors

Fangjie Zhao, Nanjing Agricultural University, Nanjing, China
Biogeochemistry of trace elements, uptake and detoxification of heavy metals in plants, bioremediation.

Jian Zhao, Ocean University of China, Qingdao, China

Qing Zhao, Chinese Academy of Sciences, Beijing, China
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Introduction

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Types of article

**Full Research Papers:** Full Research Papers should not exceed 8000 words (including abstract, figures, and tables but excluding references). Please note that small tables and figures each count as 300 words, and large tables or figures with multiple panels may count for 600 or more words. There should be no more than nine figures and tables (e.g., 5 figures and 4 tables maximum) in the main text. Any additional figures and tables should be placed in Supplementary Material.

The abstract (up to 300 words), highlights and conclusions of papers in this journal must contain clear and concise statements. A graphical abstract is mandatory.
A covering letter is required for all article types. This must explicitly express how the submission fits the Aims and Scope of *Environmental Pollution*, and should establish the ramifications of the research findings with regards to environmental quality, ecological health, and/or human health. Failure to include such justifications in the cover letter may result in returning the paper to the author.

**Critical Reviews:** Authors may submit manuscripts that provide in-depth critical review of a special subject. These reviews must provide a Synthesis and Critical Evaluation of the state of the knowledge of the subject and indicate research directions. The Editors also periodically invite review articles. Manuscripts should not exceed 10,000 words, as defined above.

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