

ACS Environmental Au—Your Open Access Journal for Premier Environmental Research

Cite This: *ACS Environ. Au* 2021, 1, 1–3

Read Online

ACCESS |

 Metrics & More Article Recommendations

Open Access and ACS Environmental Au

We are proud to serve as inaugural editors in publishing a new, fully open access journal, *ACS Environmental Au*, that aims to share outstanding results produced by our research community in the areas of environmental and sustainable chemical science and technology.

Open access allows the broadest possible dissemination of scientific information so that it is freely and permanently accessible to all readers without the need for a subscription. In addition, publishing under an open license allows authors or their institutions to retain the copyright of their work while reducing or removing barriers for others to use or reuse information for scholarly purposes. Therefore, this model of publishing helps build and better connect our community and enhance global collaborations across academic disciplines and geographic locations. Another advantage of fully open access journals is that the final “version of record” of every article is accessible for anyone to read *immediately* after publication, ensuring critical information is rapidly available to our whole society. This allows for important decisions to be made based on the best current scientific knowledge.

Starting in 2021, many research funding agencies under the banner of cOAlition S¹ have mandated that the researchers they support must publish their results in fully open access journals only. Therefore, there is a current requirement for many in the research community to abide by this regulation. To provide a trusted and respected journal for these mandated researchers and those authors who prefer to publish open access, *ACS Environmental Au* (“Au” = gold) was launched and opened for submissions in January 2021, along with eight other ACS Au journals.² For more details on funding mandates and the launch of these new gold open access journals, readers are directed to the Editorial from the Editor-in-Chief of the ACS Au journals, Shelley Minter (DOI: [10.1021/acsenvironau.1c00001](https://doi.org/10.1021/acsenvironau.1c00001)).

ACS Environmental Au is envisioned as a broad-scope open access journal that publishes experimental and theoretical results in all aspects of environmental science and technology, both fundamental and applied. We welcome manuscripts covering many environmental themes on global and regional scales. Topics within the scope of *ACS Environmental Au* include: alternative energy; anthropogenic impacts on atmosphere, soil, or water; biogeochemical cycling; biomass or wastes as resources; contaminants in aquatic and terrestrial environments; environmental data science; ecotoxicology and public health; energy and climate; environmental modeling,

processes, and measurement methods and technologies; environmental nanotechnology and biotechnology; green chemistry; green manufacturing and engineering; risk assessment, regulatory frameworks, and life-cycle assessments; and treatment and resource recovery and waste management.

Introducing the ACS Environmental Au Editorial Team

We are pleased to serve *ACS Environmental Au* as Deputy Editor (Xiangdong Li) and Associate Editors (Ian T. Cousins and Keri C. Hornbuckle) (Figure 1). Since we also function as Associate Editors at *Environmental Science & Technology*, we will endeavor to maintain the quality and rigor upheld by our sister journal and other related journals encompassing our scope, such as *Environmental Science & Technology Letters*, *ACS ES&T Engineering*, *ACS ES&T Water*, and *ACS Sustainable Chemistry & Engineering*. Our editorial team will strive to receive good quality reviews for submitted manuscripts from our ACS reviewer pool and aim for a rapid submission-to-publication process. In addition to this editorial efficiency, we are able to accommodate scientific data in accepted manuscripts without page limits or additional costs, maximizing your effective communication to the research community and wider audience.

As editors of *ACS Environmental Au*, we are looking to publish influential research that addresses critical environmental issues facing humanity and the ecosystem. In our decision-making, we will place great emphasis on the novelty of the scientific approaches and their significance in solving real environmental problems. We are also determined to publish high-quality articles of an interdisciplinary nature that integrate scientific and engineering applications.

We are delighted to announce and welcome our excellent inaugural Editorial Advisory Board (EAB) for *ACS Environmental Au* (Table 1). This international group of scientists and engineers have broad expertise that covers the wide scope of our journal. Our EAB includes eminent researchers in the environmental sciences and dynamic young researchers in some emerging research topics. All of them will advise us on important decisions for the journal, recommend new areas of research, invite manuscripts, and organize special issues. In

Published: November 17, 2021





Figure 1. (Left to right) Xiangdong Li (Deputy Editor, The Hong Kong Polytechnic University), Ian Cousins (Associate Editor, Stockholm University), and Keri Hornbuckle (Associate Editor, University of Iowa).

Table 1. Members of the Inaugural Editorial Advisory Board of ACS Environmental Au

| editorial advisory board member | institutional affiliation | country |
|---------------------------------|---|-------------------|
| Beate I. Escher | Helmholtz Centre for Environmental Research – UFZ | Germany |
| Thomas Hofstetter | Eawag | Switzerland |
| Stina Jansson | Umeå University | Sweden |
| Yi Jiang | The Hong Kong Polytechnic University | China |
| Ling Jin | The Hong Kong Polytechnic University | China |
| Giehyeon Lee | Yonsei University | Republic of Korea |
| Xing-Fang Li | University of Alberta | Canada |
| Fangqiong Ling | Washington University at St Louis | USA |
| Meagan Mauter | Stanford University | USA |
| Ping'an Peng | Chinese Academy of Sciences | China |
| Desiree Plata | Massachusetts Institute of Technology | USA |
| Antonia Praetorius | University of Amsterdam | Netherlands |
| Emma Schymanski | University of Luxembourg | Luxembourg |
| David L. Sedlak | University of California Berkeley | USA |
| Manabu Shiraiwa | University of California Irvine | USA |
| Hang Su | Max Planck Institute of Chemistry | Germany |
| Weimin Sun | Guangdong Academy of Sciences | China |
| Elsie Sunderland | Harvard University | USA |
| Peter Vikesland | Virginia Tech | USA |
| Qiang Zhang | Tsinghua University | China |

addition, their involvement ensures we possess the expertise we require to handle the diversity of topics we aim to attract to the journal. Our EAB will also contribute to our editorials and provide commentaries to our publications in the coming issues of *ACS Environmental Au*.

Manuscript Types

ACS Environmental Au publishes Research Articles, short Letters, Reviews, and Perspectives describing high-quality research on all aspects of environmental science and technology.

Research Articles and short Letters describe original work of high scientific rigor that represents a significant advance in the discipline or across disciplines. Research articles are full comprehensive manuscripts, whereas short Letters are brief publications reporting results of some urgency, for which the peer review process can be expedited.

Reviews and Perspectives serve to contextualize previously published work in a field and provide ways forward for a given research topic. Reviews are comprehensive contributions with the aim of providing a “primer” for nonexperts. Perspectives are shorter, more focused, and personal pieces to inspire new research directions. We would like potential authors of Reviews and Perspectives to contact us directly to share their plans before writing. This consultation will ensure that the topic and focus fit the journal’s scope, are suitable for our broad readership, and are highly impactful. Please see the Author Guidelines on our web page (https://publish.acs.org/publish/author_guidelines?coden=aeacc4) for more information on our different manuscript types and on submitting proposals for reviews and perspectives.

Highlights of the Inaugural Issue

The inaugural issue of *ACS Environmental Au* contains one Perspective, two Reviews, and three Research Articles. The topics in this issue reflect the major research focus on broad environmental science and engineering research. Three of the contributions are related to wastewater treatment technology (constructed wetland system), surface water quality assessment, and the environmental fate of chemicals at the water–sediment interface. Another three focus on prominent COVID-19 issues in the environment, including a research article on the aerosols released while singing and playing wind instruments, and two comprehensive reviews on wastewater-based community monitoring of SARS-CoV-2 and municipal solid waste management during the COVID-19 outbreak.

David Sedlak’s team presents a Perspective on constructed wetlands for reverse osmosis concentrate treatment to solve city water stress and to achieve sustainable urban development ([10.1021/acsenvironau.1c00013](https://doi.org/10.1021/acsenvironau.1c00013)). The in-depth perspectives highlight a number of benefits of the nature-based treatment, including simultaneous removal of nutrients and contaminants, low operation costs and good public acceptance. A few key research areas have been proposed to better the understanding of key processes and to optimize wetland design to enable widespread potable water reuse in large urban areas.

Kathrin Fenner and co-workers provide a study on the biotransformation of persistent chemicals in the water–sediment interface ([10.1021/acsenvironau.1c00006](https://doi.org/10.1021/acsenvironau.1c00006)). Their proposed assessment system showed good inter-replicate compatibility, improved observability of biotransformation, and consistency with first-order biotransformation kinetics for different compounds, including pharmaceuticals, pesticides,

and artificial sweeteners. The study also indicates the importance of including microbiological characterization in the sediment and water system.

Emma Schymanski, Randolph Singh, and colleagues present a study on pharmaceuticals and their transformation products in surface water systems in Luxembourg using nontarget analysis (10.1021/acsenvironau.1c00008). Antihypertensive drugs, psychoactive drugs, and antimicrobials were the most detected groups of pharmaceuticals. The open data provided for a range of pharmaceuticals in river systems can help to improve water management and software development.

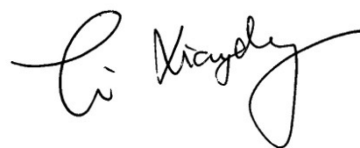
Shelly Miller's team conducted a research project on aerosol generation and transport while singing and playing wind instruments in choir and theater performances (10.1021/acsenvironau.1c00007). The study utilized flow visualization, aerosol and CO₂ measurements, and computational fluid dynamics modeling to understand the different components that can lead to transmission risks of SARS-CoV-2. The data showed that plumes from musical performance were highly directional, unsteady and varied considerably in time and space. Face and bell masks attenuated plume velocities and lengths and decreased aerosol concentrations. This study showed the lowest risk with an exposure duration of less than 30 min for indoor singing and clarinet playing and an exposure duration of less than 60 min for an outdoor performance.

Xing-Fang Li's group contribute a comprehensive Review focusing on the progress and challenges of wastewater-based epidemiology for community monitoring of SARS-CoV-2 (10.1021/acsenvironau.1c00015). The detection of viruses in the complicated wastewater sample matrix requires efficient sample processing and sensitive analytical methods. In the Review, the authors highlight the importance of appropriate quality controls and method validation, including the use of surrogate viruses for extraction efficiency evaluation and normalization against measurable chemical and biological components in wastewater samples.

The joint Review by Amar K. Mohanty, Manjusri Misra, and colleagues touches on important issues of solid waste management and solid medical waste during the COVID-19 outbreak (10.1021/acsenvironau.1c00005). The pandemic affected waste segregation and recycling in conventional management and treatment practices. Environmentally friendly (biodegradable/compostable) alternatives to single-use plastics are required for alleviating waste management problems associated with the increased waste items. A broader sustainability check is proposed to determine protection products' and treatment systems' economic and environmental viability.


Summary

We hope you enjoy reading the outstanding collection of Articles, Reviews, and Perspectives published in this inaugural issue of this new venture for environmental research. Please stay connected; we encourage you to return to read the exciting new articles in the coming issues and look forward to your contributions to *ACS Environmental Au* in the near future. We would like to acknowledge our authors, reviewers, and the journal team (Millie Newman and Dinesh Soares in particular) for their enthusiasm, hard work, and great efforts, without which this first issue would not be possible.




Xiangdong Li, Deputy Editor  orcid.org/0000-0002-4044-2888



Ian T. Cousins, Associate Editor  orcid.org/0000-0002-7035-8660



Keri C. Hornbuckle, Associate Editor  orcid.org/0000-0002-3478-3221

AUTHOR INFORMATION

Complete contact information is available at:
<https://pubs.acs.org/10.1021/acsenvironau.1c00045>

Notes

Views expressed in this editorial are those of the authors and not necessarily the views of the ACS.

REFERENCES

- (1) <https://www.coalition-s.org/>.
- (2) <https://axial.acs.org/2020/12/07/acs-au/>.