

Editor-in-Chief Piet N. L. Lens

Reviews in Environmental Science and Bio/Technology

Dear Prof. Lens,

On behalf of all co-authors, I am pleased to submit the revised version of our manuscript entitled:

"Risks Associated with PFAS in the Environment and Consumer Products: From Sources and Exposure Pathways to Monitoring and Mitigation",

in response to the decision of minor revision (Submission ID: affed7b7-1268-412e-943e-3ff1f521c92a).

We have carefully revised the manuscript in accordance with all reviewer and editorial comments. In particular, we have:

- clarified statements that were considered too general or potentially overstated,
- improved scientific precision and consistency of terminology,
- corrected citation and formatting issues throughout the manuscript,
- updated and improved the figures, including Figure 1,
- refined selected discussion sections to address conceptual ambiguities highlighted by the reviewers,
- revised the abstract to better reflect the main conclusions and the scope of the work.

All changes in the manuscript have been clearly indicated to facilitate the review process.

Together with the revised manuscript, we submit a detailed point-by-point response to all reviewer comments. Where suggested modifications were not fully implemented, a clear and evidence-based justification has been provided in accordance with the journal's guidelines.

We confirm that this manuscript is original, has not been published previously, and is not under consideration for publication elsewhere. All authors have approved the submitted version and agree with its submission to Reviews in Environmental Science and Bio/Technology.

We believe that these revisions have significantly strengthened the manuscript and improved its clarity and scientific rigor. We hope that the revised version will meet the expectations for publication in the journal.

Thank you very much for your time and consideration.

Sincerely,

Michał Błażej Ponczek

on behalf of all co-authors

University of Lodz

Reviewer 2

The manuscript discusses on Risks Associated with PFAS in the Environment and Consumer Products: From Sources and Exposure Pathways to Monitoring and Mitigation.

The authors have improved the content of the publication. Below a few comments:

- Page 3; Figure 1: (A) In the picture, it is difficult to see or make out the 'n' and the '4'.
- Page 4; Figure 2: Please remember to replace the figure 2 in the publication file, as the image that has been uploaded separately is incorrect.

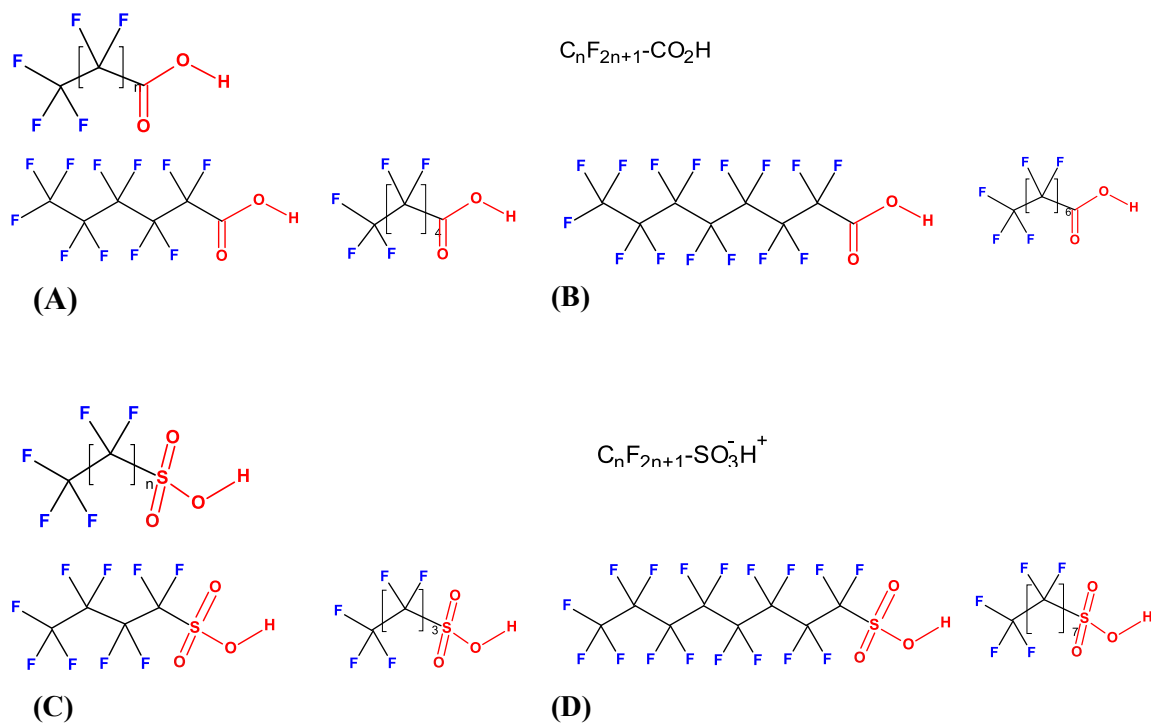
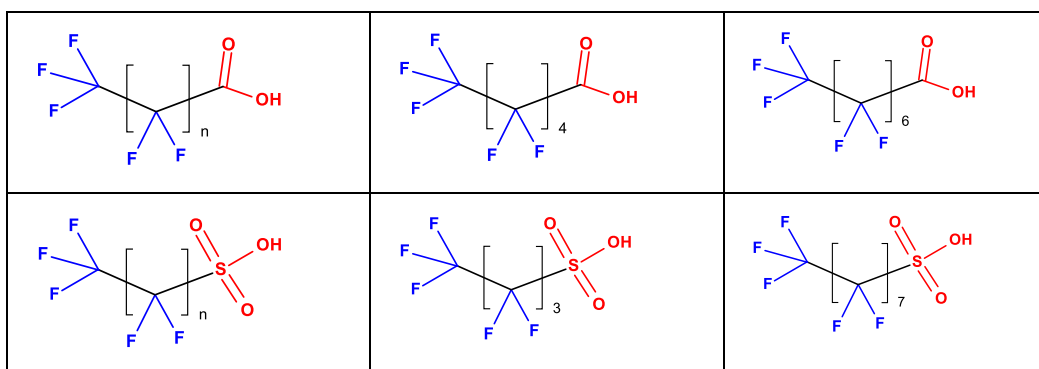


Fig. 1 Representative PFAS molecular structures illustrating key structural gradients relevant to environmental fate: (A) PFHxA (C6 PFCA, short-chain), (B) PFOA (C8 PFCA), (C) PFBS (C4 PFSA, short-chain) and (D) PFOS – perfluorooctane sulfonic acid (C8, sulfonic acid). The subscript n denotes the number of perfluorinated carbon units in the chain (chain length), which governs key environmental fate properties including mobility, sorption affinity, and bioaccumulation potential. Differences in chain length and headgroup functionality underpin systematic shifts in these properties (Cousins et al. 2020a; Wang et al. 2021).