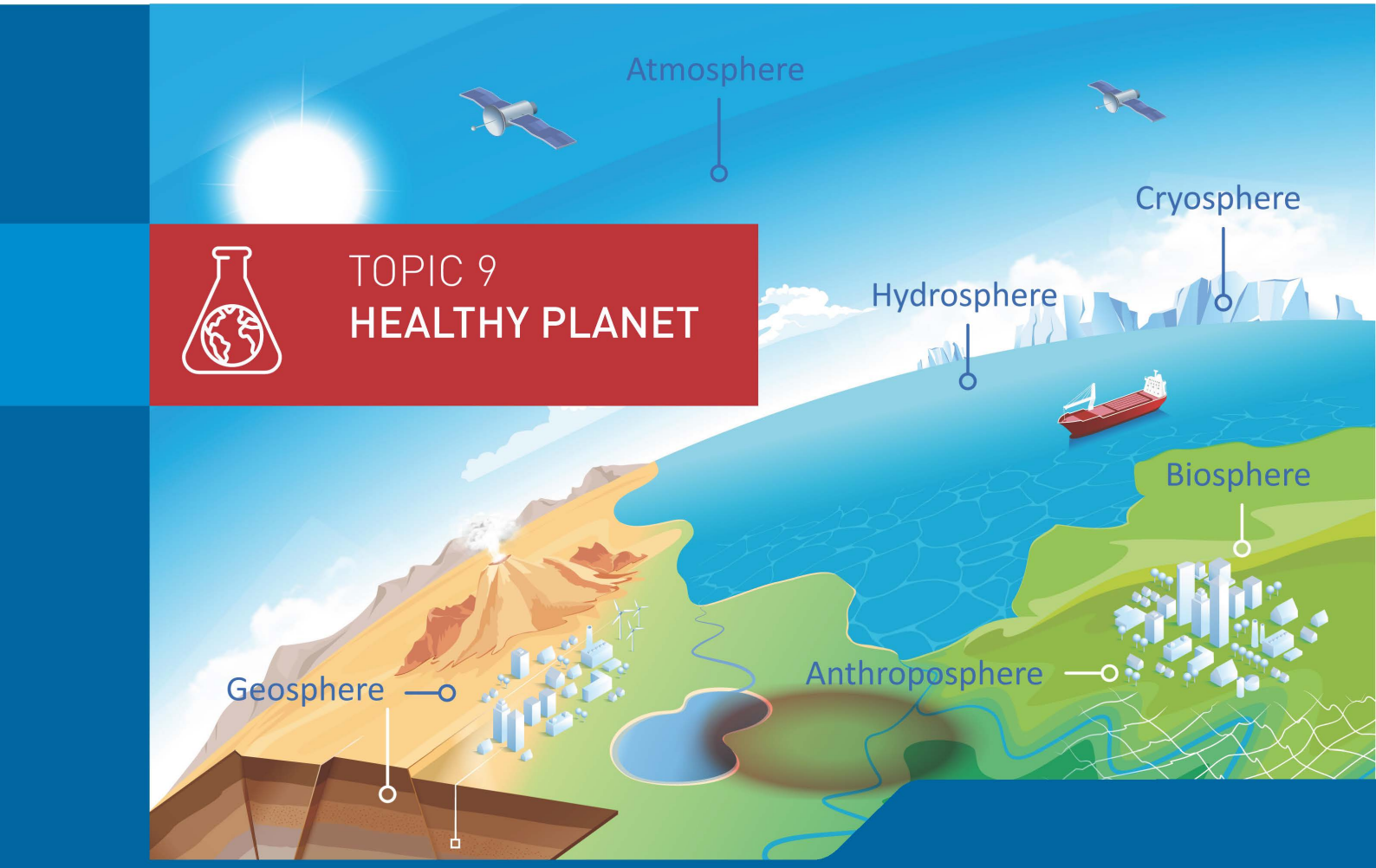
UFZ HELMHOLTZ Centre for Environmental Research



TOPIC 9
HEALTHY PLANET

Publications

Helmholtz Centre for Environmental Research – UFZ

Topic 9: Healthy Planet - Towards a Non-Toxic Environment

Preface

This list includes all publications of the year 2024 assigned to program topic 9 “Healthy Planet – Towards a Non-Toxic Environment” of the Helmholtz research program "Changing Earth – Sustaining our Future" within the research field Earth and Environment which were authored, co-authored or edited by staff members of the Helmholtz Centre for Environmental Research - UFZ.

If a publication belongs to more than one program topic, both primary and secondary assignments are indicated.

The editorial deadline for this publication list was 28 February 2025.

In contrast to external authors, UFZ staff names are highlighted in **bold type** in all publications.

The concluding index lists all UFZ authors in alphabetical order with the sequential numbers of their publications.

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Publications in ISI/Scopus listed journals/series

1. Abueg, L.A.L., Afgan, E., Allart, O., Awan, A.H., Bacon, W.A., Baker, D., Bassetti, M., Batut, B., **Bernt, M.,** Zoabi, R., et al., The Galaxy Community (2024): The Galaxy platform for accessible, reproducible, and collaborative data analyses: 2024 update
Nucleic Acids Res. **52** (W1), W83 - W94 10.1093/nar/gkae410

2. Adamovsky, O., Groh, K.J., Białk-Bielińska, A., **Escher, B.I.,** Beaudouin, R., Mora Lagares, L., Tollefsen, K.E., Fenske, M., Mulkiewicz, E., Creusot, N., Sosnowska, A., Loureiro, S., Beyer, J., Repetto, G., Štern, A., Lopes, I., Monteiro, M., Zikova-Kloas, A., Eleršek, T., Vračko, M., Zdybel, S., Puzyn, T., Koczur, W., Ebsen Morthorst, J., Holbech, H., Carlsson, G., Örn, S., Herrero, Ó., **Siddique, A., Liess, M., Braun, G., Srebny, V.,** Žegura, B., Hinfray, N., Brion, F., Knapen, D., Vandeputte, E., Stinckens, E., Vergauwen, L., Behrendt, L., Silva, M.J., Blaha, L., Kyriakopoulou, K. (2024):
Exploring BPA alternatives – Environmental levels and toxicity review
Environ. Int. **189** , art. 108728 10.1016/j.envint.2024.108728

3. **Akay, C., Ulrich, N., Ding, C., Nunes da Rocha, U., Adrian, L.** (2024):
Sequential anaerobic-aerobic treatment enhances sulfamethoxazole removal: From batch cultures to observations in a large-scale wastewater treatment plant
Environ. Sci. Technol. **58** (28), 12609 - 12620 10.1021/acs.est.4c00368
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4. **Aldehoff, A.S., Karkossa, I., Goerdeler, C., Krieg, L., Schor, J., Engelmann, B.,** Wabitsch, M., Landgraf, K., **Hackermüller, J.,** Körner, A., **Rolle-Kampczyk, U., Schubert, K., von Bergen, M.** (2024):
Unveiling the dynamics of acetylation and phosphorylation in SGBS and 3T3-L1 adipogenesis
iScience **27** (6), art. 109711 10.1016/j.isci.2024.109711

5. Arp, H.P.H., Wolf, R., Hale, S.E., Baskaran, S., Glüge, J., Scheringer, M., Trier, X., Cousins, I.T., Timmer, H., Hofman-Caris, R., Lennquist, A., Bannink, A.D., Stroomberg, G.J., Sjerps, R.M.A., Montes, R., Rodil, R., Quintana, J.B., **Zahn, D.,** Gallard, H., Mohr, T., Schliebner, I., Neumann, M. (2024):
Letter to the editor regarding Collard et al. (2023): "Persistence and mobility (defined as organic-carbon partitioning) do not correlate to the detection of substances found in surface and groundwater: Criticism of the regulatory concept of persistent and mobile substances"
Sci. Total Environ. **906** , art. 165927 10.1016/j.scitotenv.2023.165927

6. Asaba, C.N., Ekabe, C.J., **Ayuk, H.S.,** Gwanyama, B.N., Bitazar, R., Bukong, T.N. (2024):
Interplay of TLR4 and SARS-CoV-2: Unveiling the complex mechanisms of inflammation and severity in COVID-19 infections
J. Inflamm. Res. **17** , 5077 - 5091 10.2147/JIR.S474707

7. **Azarian, M.,** Ramezani Farani, M., Cho, W.C., Asgharzadeh, F., Yang, Y., Moradi Binabaj, M., Tambuwala, M.M., Farahani, N., Hushmandi, K., Huh, Y.S. (2024):
Advancements in colorectal cancer treatment: The role of metal-based and inorganic nanoparticles in modern therapeutic approaches
Pathol. Res. Pract. **264** , art. 155706 10.1016/j.prp.2024.155706

8. Bade, R., **Huchthausen, J., Huber, C.,** Dewapriya, P., Tscharke, B.J., Verhagen, R., Puljevic, C., **Escher, B.I.,** O'Brien, J.W. (2024):
Improving wastewater-based epidemiology for new psychoactive substance surveillance by combining a high-throughput *in vitro* metabolism assay and LC−HRMS metabolite identification
Water Res. **253** , art. 121297 10.1016/j.watres.2024.121297

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The mode of toxic action of ionic liquids: Narrowing down possibilities using high-throughput, *in vitro* cell-based bioassays
Environ. Int. **193** , art. 109089 10.1016/j.envint.2024.109089

10. Banaei, G., Abass, D., Tavakolpournegari, A., Martín-Pérez, J., Gutiérrez, J., **Peng, G., Reemtsma, T.,** Marcos, R., Hernández, A., García-Rodríguez, A. (2024):
Teabag-derived micro/nanoplastics (true-to-life MNPLs) as a surrogate for real-life exposure scenarios
Chemosphere **368** , art. 143736 10.1016/j.chemosphere.2024.143736

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12. Barquero, M.B., García-Díaz, C., Dobbler, P.T., **Jehmlich, N.,** Moreno, J.L., López-Mondéjar, R., Bastida, F. (2024):
Contrasting fertilization and phenological stages shape microbial-mediated phosphorus cycling in a maize agroecosystem
Sci. Total Environ. **951** , art. 175571 10.1016/j.scitotenv.2024.175571

13. Belaid, A., Roméo, B., Rignol, G., Benzaquen, J., Audoin, T., Vouret-Craviari, V., Brest, P., Varraso, R., **von Bergen, M.,** Marquette, C.H., Leroy, S., Mograbi, B., Hofman, P. (2024):
Impact of the lung microbiota on development and progression of lung cancer
Cancers **16** (19), art. 3342 10.3390/cancers16193342

14. Betz-Koch, S., Grittner, L., **Krauss, M.,** Listmann, S., Oehlmann, J., Oetken, M. (2024):
The impact of repeated pyrethroid pulses on aquatic communities
Sci. Total Environ. **955** , art. 177177 10.1016/j.scitotenv.2024.177177

15. **Böhme, A., Simoneit, M., Ulrich, N., Schüürmann, G.** (2024):
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Naunyn-Schmiedebergs Arch. Pharmacol. **397** (Suppl. 1),
S19 - P001 10.1007/s00210-024-02974-3

16. **Bonn, A., von Gönner, J., Liess, M., Gröning, J.** (2024):
Citizen Science-Projekt FLOW: Kleine Bäche in Deutschland sind in einem schlechten ökologischen Zustand [Citizen Science project FLOW: Small streams in Germany are in poor ecological condition]
GWF Wasser, Abwasser **165** (5), 61 - 62
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17. Braeuning, A., Balaguer, P., Bourguet, W., Carreras-Puigvert, J., Feiertag, K., Kamstra, J.H., Knapen, D., Lichtenstein, D., Marx-Stoelting, P., Rietdijk, J., **Schubert, K.,** Spjuth, O., Stinckens, E., Thedieck, K., van den Boom, R., Vergauwen, L., **von Bergen, M.,** Wewer, N., Zalko, D. (2024):
Corrigendum: Development of new approach methods for the identification and characterization of endocrine metabolic disruptors—a PARC project
Front. Toxicol. **6** , art. 1394396 10.3389/ftox.2024.1394396

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Anal. Bioanal. Chem. **416** (12), 2983 - 2993 10.1007/s00216-024-05245-5

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Enhancing toxicological insights through multi-omics: a case study on direct and indirect thyroid toxicity
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High-throughput screening of the effects of 90 xenobiotics on the simplified human gut microbiota model (SIHUMIx): A metaproteomic and metabolomic study
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Back flux during anaerobic oxidation of butane supports archaea-mediated alkanogenesis
Nat. Commun. **15** , art. 9628 10.1038/s41467-024-53932-9
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24. Cheng, F., **Escher, B.I.,** Li, H., **König, M.,** Tong, Y., Huang, J., He, L., Wu, X., Lou, X., Wang, D., Wu, F., Pei, Y., Yu, Z., Brooks, B.W., Zeng, E.Y., You, J. (2024):
Deep learning bridged bioactivity, structure, and GC-HRMS-readable evidence to decipher nontarget toxicants in sediments
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Occurrence, removal and risk assessment of chemicals of emerging concern in selected rivers and wastewater treatment plants in western Kenya
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Maternal educational attainment in pregnancy and epigenome-wide DNA methylation changes in the offspring from birth until adolescence
Mol. Psychiatr. **29** , 348 - 358 10.1038/s41380-023-02331-5

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Combining advanced analytical methodologies to uncover suspect PFAS and fluorinated pharmaceutical contributions to extractable organic fluorine in human serum (Tromsø Study)
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Predicting the intrinsic membrane permeability of Caco-2/MDCK cells by the solubility-diffusion model
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Unveiling fungal strategies: Mycoremediation in multi-metal pesticide environments using proteomics
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Potential and risks of water reuse in Brandenburg (Germany) – an interdisciplinary case study
Water Reuse **14** (1), 1 - 15 10.2166/wrd.2024.081

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Climate induced microbiome alterations increase cadmium bioavailability in agricultural soils with pH below 7
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An automated and high-throughput data processing workflow for PFAS identification in biota by direct infusion ultra-high resolution mass spectrometry
Anal. Bioanal. Chem. **416** (22), 4833 - 4848 10.1007/s00216-024-05426-2

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Mixtures of organic micropollutants exacerbated in vitro neurotoxicity of prymnesins and contributed to aquatic toxicity during a toxic algal bloom
Nat. Water **2** (9), 889 - 898 10.1038/s44221-024-00297-4
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In vitro bioassays for monitoring drinking water quality of tap water, domestic filtration and bottled water
J. Expo. Sci. Environ. Epidemiol. **34** (1), 126 - 135 10.1038/s41370-023-00566-6

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Crit. Rev. Food Sci. Nutr. **64** (10), 3122 - 3138 10.1080/10408398.2022.2130159

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Environ. Int. **183** , art. 108371 10.1016/j.envint.2023.108371
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Single and mixture effects of bisphenol A and benzophenone-3 on *in vitro* T helper cell differentiation
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Proteomic and transcriptomic analysis of selenium utilization in *Methanococcus maripaludis*
mSystems **9** (5), e01338-23 10.1128/msystems.01338-23

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