



Veröffentlichungen

des Helmholtz-Zentrums für Umweltforschung – UFZ

Topic 7: Für eine nachhaltige Bioökonomie – Ressourcen, Nutzung, Technikentwicklung und Agrar-Ökosysteme

Vorbemerkung

Das vorliegende Veröffentlichungsverzeichnis umfasst die im Jahr 2023 erschienenen Publikationen des Programm-Topics 7 „Für eine nachhaltige Bioökonomie – Ressourcen, Nutzung, Technikentwicklung und Agrar-Ökosysteme“ des Helmholtz-Programms „Changing Earth – Sustaining our Future“ des Forschungsbereichs Erde und Umwelt, die von Beschäftigten des Helmholtz-Zentrums für Umweltforschung – UFZ verfasst, mitverfasst oder herausgegeben wurden.

Ist eine Publikation zusätzlich noch weiteren Programm-Topics zugeordnet, wird dies durch einen Hinweis auf Haupt- und Nebenzuordnungen ersichtlich.

Redaktionsschluss für diese Publikationsliste war der 31.01.2024.

UFZ-Beschäftigte sind im Unterschied zu Externen bei allen Publikationen durch **fette Schrift** hervorgehoben.

Das anschließende Autorenregister verzeichnet alle UFZ-Namen in alphabetischer Reihenfolge mit den laufenden Nummern der zugehörigen Publikationen.

Inhaltsverzeichnis

Veröffentlichungen in ISI/Scopus-gelisteten Zeitschriften/Schriftenreihen	3
Veröffentlichungen in anderen Zeitschriften	24
Bücher	25
Buchherausgaben	26
Buchkapitel	27
Berichte	28
Preprints	29
UFZ-Autorenregister	30

Veröffentlichungen in ISI/Scopus-gelisteten Zeitschriften/Schriftenreihen

1. **Abdulkadir, N., Saraiva, J.P., Schattenberg, F., Brizola Toscan, R., Borim Correa, F., Harms, H., Müller, S., Nunes da Rocha, U.** (2023):
Combining flow cytometry and metagenomics improves recovery of metagenome-assembled genomes in a cell culture from activated sludge
Microorganisms **11** (1), art. 175
2. Abu Quba, A.A., Goebel, M.-O., **Karagulyan, M., Miltner, A., Kästner, M.,** Bachmann, J., Schaumann, G.E., Diehl, D. (2023):
Changes in cell surface properties of *Pseudomonas fluorescens* by adaptation to NaCl induced hypertonic stress
FEMS Microbes **4** , xtac028
3. Abu Quba, A.A., Goebel, M.-O., **Karagulyan, M., Miltner, A., Kästner, M.,** Bachmann, J., Schaumann, G.E., Diehl, D. (2023):
Hypertonic stress induced changes of *Pseudomonas fluorescens* adhesion towards soil minerals studied by AFM
Sci. Rep. **13** , art. 17146
4. Ahmad, N., Younas, F., Ahmad, H.R., Sarfraz, M., Ayub, M.A., Maqsood, M.A., Rasul, F., Sardar, M.F., **Mehmood, T.,** Ajarem, J.S., Maoda, S.N., Li, X., Cui, Z. (2023):
Soybean (*Glycine max*) cropland suitability analysis in subtropical desert climate through GIS-based multicriteria analysis and Sentinel-2 multispectral imaging
Land **12** (11), art. 2034
5. Ali, M.H., **Khan, M.I.,** Naveed, M., Tanvir, M.A. (2023):
Microbe-assisted rhizoremediation of hydrocarbons and growth promotion of chickpea plants in petroleum hydrocarbons-contaminated soil
Sustainability **15** (7), art. 6081
6. Álvarez-Barragán, J., Cravo-Laureau, C., **Xiong, B., Wick, L.Y.,** Duran, R. (2023):
Marine fungi select and transport aerobic and anaerobic bacterial populations from polycyclic aromatic hydrocarbon-contaminated sediments
mBio **14** (2), e02761-22
7. Arend, M., Ütkür, K., Hawer, H., Mayer, K., Ranjan, N., **Adrian, L.,** Brinkmann, U., Schaffrath, R. (2023):
Yeast gene *KTI13* (alias *DPH8*) operates in the initiation step of diphthamide synthesis on elongation factor 2
Microb. Cell **10** (9), 195 - 203

8. **Aslam, S., Jing, Y., Nowak, K.M.** (2023):
Fate of glyphosate and its degradation products AMPA, glycine and sarcosine in an agricultural soil: Implications for environmental risk assessment
J. Hazard. Mater. **447** , art. 130847
9. Aumeier, B.M., **Georgi, A., Saeidi, N.,** Sigmund, G. (2023):
Is sorption technology fit for the removal of persistent and mobile organic contaminants from water?
Sci. Total Environ. **880** , art. 163343
10. **Avila Santos, A.P., Kabiru Nata'ala, M., Kasmanas, J.C.,** Bartholomäus, A., Keller-Costa, T., **Jurburg, S.D., Tal, T.,** Camarinha-Silva, A., **Saraiva, J.P.,** de Carvalho, A.C.P.L.F., Stadler, P.F., **Sipoli Sanches, D., Nunes da Rocha, U.** (2023):
The AnimalAssociatedMetagenomeDB reveals a bias towards livestock and developed countries and blind spots in functional-potential studies of animal-associated microbiomes
Animal Microbiome **5** , art. 48
Hauptzuordnung T7; Nebenzuordnung T9
11. **Balda, M., Mackenzie, K., Wosidlo, S.,** Uhlig, H., Möllmer, J., **Kopinke, F.-D., Schüürmann, G., Georgi, A.** (2023):
Bottom-up synthesis of de-functionalized and dispersible carbon spheres as colloidal adsorbent
Int. J. Mol. Sci. **24** (4), art. 3831
Hauptzuordnung T7; Nebenzuordnung T9
12. **Baleeiro, F.C.F., Raab, J., Kleinsteuber, S.,** Neumann, A., **Sträuber, H.** (2023):
Mixotrophic chain elongation with syngas and lactate as electron donors
Microb. Biotechnol. **16** (2), 322 - 336
13. **Baleeiro, F.C.F.,** Varchmin, L., **Kleinsteuber, S., Sträuber, H.,** Neumann, A. (2023):
Formate-induced CO tolerance and methanogenesis inhibition in fermentation of syngas and plant biomass for carboxylate production
Biotechnol. Biofuels Bioprod. **16** , art. 26
14. Barrero-Canosa, J., Wang, L., Oyugi, A., **Klaes, S.,** Fischer, P., **Adrian, L.,** Szewzyk, U., Cooper, M. (2023):
Characterization of phage vB_EcoS-EE09 infecting *E. coli* DSM613 isolated from wastewater treatment plant effluent and comparative Proteomics of the infected and non-infected host
Microorganisms **11** (11), art. 2688

15. Bates, K.A., **Friesen, J.**, Loyau, A., Butler, H., Vredenburg, V.T., **Lauffer, J.**, **Chatzinotas, A.**, Schmeller, D.S. (2023):
Environmental and anthropogenic factors shape the skin bacterial communities of a semi-arid amphibian species
Microb. Ecol. **86** (2), 1393 - 1404
16. **Becker, D.**, **Popp, D.**, **Bonk, F.**, **Kleinsteuber, S.**, **Harms, H.**, **Centler, F.** (2023):
Metagenomic analysis of anaerobic microbial communities degrading short-chain fatty acids as sole carbon sources
Microorganisms **11** (2), art. 420
17. Bernat, P., Jasińska, A., Niedziałkowska, K., Słaba, M., Różalska, S., Paraszkiwicz, K., Sas-Paszt, L., **Heipieper, H.J.** (2023):
Adaptation of the metolachlor-degrading fungus *Trichoderma harzianum* to the simultaneous presence of low-density polyethylene (LDPE) microplastics
Ecotox. Environ. Safe. **267** , art. 115656
18. Biedermann, P., Engelmann, S., **Klähn, S.**, Seiffert-Störiko, A., Sieben, C., Sander, J., Kruck, D. (2023):
Journal Club
Biospektrum **29** (4), 382 - 385
19. **Bonatelli, M.L.**, **Rohwerder, T.**, **Popp, D.**, **Liu, Y.**, **Akay, C.**, **Schultz, C.**, **Liao, K.-P.**, **Ding, C.**, **Reemtsma, T.**, **Adrian, L.**, **Kleinsteuber, S.** (2023):
Recently evolved combination of unique sulfatase and amidase genes enables bacterial degradation of the wastewater micropollutant acesulfame worldwide
Front. Microbiol. **14** , art. 1223838
Hauptzuordnung T7; Nebenzuordnung T9
20. Borer, B., **Magnúsdóttir, S.** (2023):
The media composition as a crucial element in high-throughput metabolic network reconstruction
Interface Focus **13** (2), art. 20220070
21. Boto, S.T., Bardl, B., **Harnisch, F.**, Rosenbaum, M.A. (2023):
Microbial electrosynthesis with *Clostridium ljungdahlii* benefits from hydrogen electron mediation and permits a greater variety of products
Green Chem. **25** (11), 4375 - 4386
22. **Bozan, M.**, **Schmidt, M.**, **Musat, N.**, **Schmid, A.**, **Adrian, L.**, **Bühler, K.** (2023):
Spatial organization and proteome of a dual-species cyanobacterial biofilm alter among N₂-fixing and non-fixing conditions
mSystems **8** (3), art. 00302-23

23. Bredum, S.K., Strathe, A.V., Jacobsen, J., Christoffersen, B.Ø., **Gehre, M., Kümmel, S., Junghans, P., Marcussen, C.** (2023):
Quantifying energy expenditure in Göttingen Minipigs with the ¹³C-bicarbonate method under basal and drug-treated conditions
Clin. Nutr. ESPEN **58** , 388 - 396
24. **Breulmann, M., Kallies, R., Bernhard, K., Gasch, A., Müller, R.A., Harms, H., Chatzinotas, A., van Afferden, M.** (2023):
A long-term passive sampling approach for wastewater-based monitoring of SARS-CoV-2 in Leipzig, Germany
Sci. Total Environ. **887** , art. 164143
25. Buivydaite, Ž., Aryal, L., **Borim Corrêa, F.**, Chen, T., Langlois, V., Elberg, C.L., Netherway, T., Wang, R., Zhao, T., Acharya, B., Emerson, J.B., Hillary, L., Khadka, R.B., Mason-Jones, K., Sapkota, R., Sutela, S., Trubl, G., White III, R.A., Winding, A., Carreira, C. (2023):
Meeting report: The first soil viral workshop 2022
Virus Res. **331** , art. 199121
26. **Cárdenas Espinosa, M.J., Schmidgall, T., Pohl, J., Wagner, G., Wynands, B., Wierckx, N., Heipieper, H.J., Eberlein, C.** (2023):
Assessment of new and genome-reduced *Pseudomonas* strains regarding their robustness as *chassis* in biotechnological applications
Microorganisms **11** (4), art. 837
27. Çelik, G., Stolte, S., **Müller, S., Schattenberg, F.**, Markiewicz, M. (2023):
Environmental persistence assessment of heterocyclic polyaromatic hydrocarbons – Ultimate and primary biodegradability using adapted and non-adapted microbial communities
J. Hazard. Mater. **460** , art. 132370
28. **Chafra, F., Borim Correa, F., Oni, F., Konu Karakayalı, Ö., Stadler, P.F., Nunes da Rocha, U.** (2023):
StandEnA: a customizable workflow for standardized annotation and generating a presence–absence matrix of proteins
Bioinform. Adv. **3** (1), vbad069
29. **Chávez Morejón, M., Franz, A., Karande, R., Harnisch, F.** (2023):
Integrated electrosynthesis and biosynthesis for the production of adipic acid from lignin-derived phenols
Green Chem. **25** (12), 4662 - 4666

30. **Chávez Morejón, M.**, Kurig, N., Tschauder, Y.S., **Harnisch, F.**, Palkovits, R. (2023):
Electrochemical cellobiose valorization: Anodic oxidation to cellobionic acid and
cathodic reduction to cellobitol
ChemistrySelect **8** (27), e202301823
31. Chicaiza-Ortiz, C., Camacho, C., Chicaiza-Ortiz, Á., Beihan, Z., Jiangyue, D., **Logroño, W.**, Zhang, J. (2023):
The effectiveness of iron-based additives in enhancing methane and hydrogen production:
a systematic review
12th International Conference on Renewable Power Generation (RPG 2023), Shanghai, China, 14-15 October 2023
IET Conference Proceedings 2023
Institution of Engineering and Technology (IET), London,
32. Christgen, B., Spurr, M., Milner, E.M., **Izadi, P.**, McCann, C., Yu, E., Curtis, T., Scott, K., Head, I.M. (2023):
Does pre-enrichment of anodes with acetate to select for *Geobacter* spp. enhance
performance of microbial fuel cells when switched to more complex substrates?
Front. Microbiol. **14** , art. 1199286
33. Cui, L., Xin, Y., Yang, K., Li, H., Tan, F., Zhang, Y., Li, X., Zhu, Z., Yang, J.,
Kao, S.-J., Ren, B., Zhu, Y.-G., Musat, F., **Musat, N.** (2023):
Live tracking metabolic networks and physiological responses within microbial
assemblages at single-cell level
PNAS Nexus **2** (3), pgad006
34. **Dai, S., Harnisch, F., Bin-Hudari, M.S., Keller, N.-S., Vogt, C., Korth, B.** (2023):
Improving the performance of bioelectrochemical sulfate removal by applying flow mode
Microb. Biotechnol. **16** (3), 595 - 604
35. **Davoudpour, Y., Kümmel, S., Musat, N., Richnow, H.H., Schmidt, M.** (2023):
Tracking deuterium uptake in hydroponically grown maize roots using correlative helium
ion microscopy and Raman micro-spectroscopy
Plant Methods **19** , art. 71
36. de Carvalho, I., Apaza-Castillo, G.A., Paz, I.C.P., Guimarães, A.M., Quecine, M.C., **Bonatelli, M.L.** (2023):
Draft genome sequence of the plant growth promoter and biocontrol agent *Bacillus velezensis* strain BIB0110
Microbiol. Resour. Announc. **12** (6), e00231-23
37. **Dzofou Ngoumelah, D., Harnisch, F., Sulheim, S., Heggeset, T.M.B., Aune, I.H., Wentzel, A., Kretzschmar, J.** (2023):
A unified and simple medium for growing model methanogens
Front. Microbiol. **13** , art. 1046260

38. **Dzofou Ngoumelah, D., Kuchenbuch, A., Harnisch, F.,** Kretzschmar, J. (2023):
Combining *Geobacter* spp. dominated biofilms and anaerobic digestion effluents—The effect of effluent composition and electrode potential on biofilm activity and stability
Environ. Sci. Technol. **57** (6), 2584 - 2594
39. Eisenhauer, N., Angst, G., Asato, A.E.B., Beugnon, R., Bönisch, E., Cesarz, S., Dietrich, P., **Jurburg, S.D., Madaj, A.-M.,** Reuben, R.C., Ristok, C., Sünemann, M., Yi, H., Guerra, C.A., Hines, J. (2023):
The heterogeneity–diversity–system performance nexus
Natl. Sci. Rev. **10** (7), nwad109
Hauptzuordnung T5; Nebenzuordnung T7
40. **Escher, B.I., Altenburger, R.,** Blüher, M., Colbourne, J.K., Ebinghaus, R., Fantke, P., **Hein, M., Köck, W.,** Kümmerer, K., **Leipold, S.,** Li, X., Scheringer, M., **Scholz, S.,** Schloter, M., Schweizer, P.-J., **Tal, T.,** Tetko, I., Traidl-Hoffmann, C., **Wick, L.Y.,** Fenner, K. (2023):
Modernizing persistence–bioaccumulation–toxicity (PBT) assessment with high throughput animal-free methods
Arch. Toxicol. **97** (5), 1267 - 1283
Hauptzuordnung T9; Nebenzuordnungen T5, T7
41. **Friesen, J., Sanne, M., Khurelbaatar, G., van Afferden, M.** (2023):
"OCTOPUS" principle reduces wastewater management costs through network optimization and clustering
One Earth **6** (9), 1227 - 1234
42. **Garmasukis, R.,** Hackl, C., Charvat, A., Mayr, S.G., Abel, B. (2023):
Rapid prototyping of microfluidic chips enabling controlled biotechnology applications in microspace
Curr. Opin. Biotechnol. **81** , art. 102948
43. **Garmasukis, R.,** Hackl, C., **Dusny, C.,** Elsner, C., Charvat, A., **Schmid, A.,** Abel, B. (2023):
Cryo-printed microfluidics enable rapid prototyping for optical-cell analysis
Microfluid. Nanofluid. **27** , art. 5
44. Gawel, A., **Sühholz, S., Georgi, A., Kopinke, F.-D., Mackenzie, K.** (2023):
Fe-zeolites for the adsorption and oxidative degradation of nitroaromatic compounds in water
J. Hazard. Mater. **459** , art. 132125

45. **Georgi, A., Köhler, R., Woszidlo, S., Mackenzie, K., Schierz, A.,** Schlosser, A., Stanger, H.-J. (2023):
Fe-zeolite as on-site regenerable adsorber for chlorohydrocarbons in groundwater – from laboratory to pilot test
Chem. Ing. Tech. **95** (12), 1999 - 2007
46. Glidden, C.K., **Karakoç, C.,** Duan, C., Jiang, Y., Beechler, B., Jabbar, A., Jolles, A.E. (2023):
Distinct life history strategies underpin clear patterns of succession in microparasite communities infecting a wild mammalian host
Mol. Ecol. **32** (13), 3733 - 3746
47. **Grosch Schroeder, B., İstanbullu, H.B., Schmidt, M., Logroño, W., Harms, H., Nikolausz, M.** (2023):
Effect of alkaline and mechanical pretreatment of wheat straw on methanogenic enrichment cultures from *Pachnoda marginata* larva gut
Fermentation **9** (1), art. 60
48. Gu, L., Xiao, X., Lee, S.Y., **Lai, B.,** Solem, C. (2023):
Superior anodic electro-fermentation by enhancing capacity for extracellular electron transfer
Bioresour. Technol. **389**, art. 129813
49. **Guo, Y., Rosa, L.F.M., Shan, Y., Harnisch, F., Müller, S.** (2023):
Labor division of electroactive and carbon degrading microorganisms in bioelectrochemical laminar flow reactors
J. Environ. Chem. Eng. **11** (5), art. 111074
50. Gurmani, S.F., Ahmad, N., Shamsheer, T., **Mehmood, T.,** Khalid, W., Maqsood, A., Iqbal, T., Shah, M.A. (2023):
Diurnal variation in the atmospheric electric field with respect to aerosol and meteorological parameters at Islamabad, Pakistan
J. Earth Syst. Sci. **132** (3), art. 134
51. **Haenelt, S., Richnow, H.-H.,** Müller, J.A., **Musat, N.** (2023):
Antibiotic resistance indicator genes in biofilm and planktonic microbial communities after wastewater discharge
Front. Microbiol. **14**, art. 1252870
52. **Haenelt, S., Wang, G., Kasmanas, J.C., Musat, F., Richnow, H.H., Nunes da Rocha, U., Müller, J.A., Musat, N.** (2023):
The fate of sulfonamide resistance genes and anthropogenic pollution marker *intI1* after discharge of wastewater into a pristine river stream
Front. Microbiol. **14**, art. 1058350

53. Hänel, M., **Khurelbaatar, G.**, Jespersen, E., Upadhyay, A., Acosta, A., Khalil, N., Brix, H., Arias, C.A. (2023):
Application potential of wastewater fertigated Short Rotation Coppice systems in a selected region (Aligarh, UP, India)
Recycling **8** (5), art. 75
54. Hartmann, S.C., Keppler, F., Greule, M., Lauer, R., **Horst, A.** (2023):
Triple-element stable isotope analysis of chloromethane emitted by royal fern and degraded by club moss
J. Geophys. Res.-Biogeosci. **128** (5), e2022JG007256
55. Hassan, M.A., Faheem, M., **Mehmood, T.**, Yin, Y., Liu, J. (2023):
Assessment of meteorological and air quality drivers of elevated ambient ozone in Beijing via machine learning approach
Environ. Sci. Pollut. Res. **30** (47), 104086 - 104099
56. Hassan, M.A., **Mehmood, T.**, Liu, J., Luo, X., Li, X., Tanveer, M., Faheem, M., Shakoore, A., Dar, A.A., Abid, M. (2023):
A review of particulate pollution over Himalaya region: Characteristics and salient factors contributing ambient PM pollution
Atmos. Environ. **294**, art. 119472
57. **Hellmold, N., Eberwein, M.**, Phan, M.H.T., **Kümmel, S.**, Einsle, O., **Deobald, D., Adrian, L.** (2023):
Dehalococcoides mccartyi strain CBDB1 takes up protons from the cytoplasm to reductively dehalogenate organohalides indicating a new modus of proton motive force generation
Front. Microbiol. **14**, art. 1305108
58. Hennecke, D., Kruse, M., Bräutigam, J., Meisterjahn, B., Klein, J., Claßen, D., Trapp, S., **Kästner, M.**, Libonati Brock, A., Schäffer, A. (2023):
Silylation: a reproducible method for characterization of non-extractable residues (NER) of organic chemicals in the assessment of persistence
Environmental Science-Advances **2** (3), 424 - 432
59. Hirschberg, S., Ghazaani, F., Ben Amor, G., Pydde, M., Nagel, A., Germani, S., Monica, L., Schlör, A., Bauer, H., Hornung, J., Voetz, M., Dwai, Y., **Scheer, B.**, Ringel, F., Kamal-Eddin, O., Harms, C., Fünner, J., **Adrian, L.**, Pruß, A., Schulze-Forster, K., Hanack, K., Kamhieh-Milz, J. (2023):
An efficient and scalable method for the production of immunogenic SARS-CoV-2 virus-like particles (VLP) from a mammalian suspension cell line
Vaccines **11** (9), art. 1469

60. Hoffstadt, K., Cheenakula, D., **Nikolausz, M.**, Krafft, S., **Harms, H.**, Kuperjans, I. (2023):
Design and construction of a new reactor for flexible biomethanation of hydrogen
Fermentation **9** (8), art. 774
61. Höflich, K., Hobler, G., Allen, F.I., Wirtz, T., Rius, G., McElwee-White, L., Krasheninnikov, A.V., **Schmidt, M.**, Utke, I., Klingner, N., Osenberg, M., Córdoba, R., Djurabekova, F., Manke, I., Moll, P.J.W., Manoccio, M., De Teresa, J.M., Bischoff, L., Michler, J., De Castro, O., Delobbe, A., Dunne, P., Dobrovolskiy, O.V., Frese, N., Gölzhäuser, A., Mazarov, P., Koelle, D., Möller, W., Pérez-Murano, F., Philipp, P., Vollnhals, F., Hlawacek, G. (2023):
Roadmap for focused ion beam technologies
Appl. Phys. Rev. **10** (4), art. 041311
62. **Holzer, F., Kraus, M., Roland, U.** (2023):
Regenerierung von Trockenmitteln für Wasserstoff durch dielektrische Erwärmung mit Radiowellen. Regeneration of desiccants for hydrogen by dielectric heating with radio waves
Chem. Ing. Tech. **95** (11), 1834 - 1843
63. Höppner, J., Krohn, S., van den Munckhof, E.H.A., **Kallies, R.**, Herber, A., Zeller, K., Tünnemann, J., Matz-Soja, M., **Chatzinotas, A.**, Böhm, S., Hoffmeister, A., Berg, T., Engelmann, C. (2023):
Changes of the bacterial composition in duodenal fluid from patients with liver cirrhosis and molecular bacterascites
Sci. Rep. **13** , art. 23001
64. **Izadi, P., Kas, A., Haus, P., Harnisch, F.** (2023):
On the stability of electrochemical CO₂ reduction reaction to formate at indium electrodes at biocompatible conditions
Electrochim. Acta **462** , art. 142733
65. **Jurburg, S.D.**, Hom, E.F.Y., **Chatzinotas, A.** (2023):
Beyond pathogenesis: Detecting the full spectrum of ecological interactions in the virosphere
PLoS Biol. **21** (5), e3002109
66. **Kallies, R., Hu, D., Abdulkadir, N.**, Schloter, M., **Nunes da Rocha, U.** (2023):
Identification of huge phages from wastewater metagenomes
Viruses **15** (12), art. 2330
67. Kang, B.R., Kim, J.J., Hong, J.-K., **Schlosser, D.**, Lee, T.K. (2023):
Continuous operation of fungal wheel reactor based on solid-state fermentation for the removal of pharmaceutical and personal care products
J. Environ. Manage. **331** , art. 117316

68. **Kas, A., Izadi, P., Harnisch, F.** (2023):
High salt electrolyte solutions challenge the electrochemical CO₂ reduction reaction to formate at indium and tin cathodes
ChemElectroChem **10** (23), e202300311
69. **Kas, A., Izadi, P., Harnisch, F.** (2023):
Front cover: High salt electrolyte solutions challenge the electrochemical CO₂ reduction reaction to formate at indium and tin cathodes (ChemElectroChem 23/2023)
ChemElectroChem **10** (23), e202300656
70. **Kas, A., Izadi, P., Harnisch, F.** (2023):
Cover profile: High salt electrolyte solutions challenge the electrochemical CO₂ reduction reaction to formate at indium and tin cathodes
ChemElectroChem **10** (23), e202300655
71. **Kenkel, A., Karande, R., Bühler, K.** (2023):
Evaluating scaling of capillary photo-biofilm reactors for high cell density cultivation of mixed trophies artificial microbial consortia
Eng. Life Sci. **23** (9), e2300014
72. **Keyikoğlu, R., Khataee, A., Orooji, Y.** (2023):
Degradation of emerging pollutants on bifunctional ZnFeV LDH@graphite felt cathode through prominent catalytic activity in heterogeneous electrocatalytic processes
J. Environ. Manage. **342**, art. 118090
73. **Keyikoğlu, R., Khataee, A., Yoon, Y.** (2023):
Enhanced generation of reactive radicals and electrocatalytic oxidation of levofloxacin using a trimetallic CuFeV layered double hydroxide-containing electrode
Chemosphere **340**, art. 139817
74. **Khan, N., Muge, E., Mulaa, F.J., Wamalwa, B., von Bergen, M., Jehmlich, N., Wick, L.Y.** (2023):
Mycelial nutrient transfer promotes bacterial co-metabolic organochlorine pesticide degradation in nutrient-deprived environments
ISME J. **17** (4), 570 - 578
Hauptzuordnung T7; Nebenzuordnung T9
75. **Klaes, S., Madan, S., Deobald, D., Cooper, M., Adrian, L.** (2023):
GroEL-proteotyping of bacterial communities using tandem mass spectrometry
Int. J. Mol. Sci. **24** (21), art. 15692
76. **Knappe, J., van Afferden, M., Friesen, J.** (2023):
GR2L: A robust dual-layer green roof water balance model to assess multifunctionality aspects under climate variability
Front. Clim. **5**, art. 1115595

77. **Knecht, C.A., Hinkel, M., Mäusezahl, I.,** Kaster, A.-K., **Nivala, J., Müller, J.A.** (2023): Identification of antibiotic resistance gene hosts in treatment wetlands using a single-cell based high-throughput approach
Water **15** (13), art. 2432
78. Kolodyńska, D., Burdzy, K., **Hunger, S., Aurich, A.,** Ju, Y. (2023): Green extractants in assisting recovery of REEs: A case study
Molecules **28** (3), art. 965
79. **Korth, B.,** Pereira, J., Sleutels, T., **Harnisch, F.,** ter Heijne, A. (2023): Comparing theoretical and practical biomass yields calls for revisiting thermodynamic growth models for electroactive microorganisms
Water Res. **242** , art. 120279
80. **Lai, B.** (2023): Biophotovoltaik: mikrobielle Wasserstoffproduktion
Biospektrum **29** (1), 97 - 98
81. **Lai, B., Krömer, J.,** Aulenta, F., Wu, H., Nickel, P.I. (2023): Exploiting synergies between microbial electrochemical technologies and synthetic biology
Microb. Biotechnol. **16** (3), 485 - 488
82. Le, A.V., Větrovský, T., Barucic, D., **Saraiva, J.P.,** Dobbler, P.T., Kohout, P., Pospíšek, M., **Nunes da Rocha, U.,** Kléma, J., Baldrian, P. (2023): Improved recovery and annotation of genes in metagenomes through the prediction of fungal introns
Mol. Ecol. Resour. **23** (8), 1800 - 1811
83. **Li, S., Müller, S.** (2023): Ecological forces dictate microbial community assembly processes in bioreactor systems
Curr. Opin. Biotechnol. **81** , art. 102917
84. Lindberg, P., **Kenkel, A., Bühler, K.** (2023): Introduction to cyanobacteria
In: Bühler, K., Lindberg, P. (eds.)
Cyanobacteria in biotechnology. Applications and quantitative perspectives
Adv. Biochem. Eng. Biotechnol. **183**
Springer Nature, p. 1 - 24
85. **Lipperera, M.C., Werban, U.,** Rossetto, R., Vienken, T. (2023): Understanding and predicting physical clogging at managed aquifer recharge systems: A field-based modeling approach
Adv. Water Resour. **177** , art. 104462
Hauptzuordnung T5; Nebenzuordnung T7

86. **Lippera, M.C., Werban, U., Vienken, T.** (2023):
Application of physical clogging models to Managed Aquifer Recharge: a review of modelling approaches from engineering fields
Acque Sotter. **12** (3), 9 - 20
Hauptzuordnung T5; Nebenzuordnung T7
87. Lisiecka, N., Ciesielski, T., Sopata, O., Parus, A., Wozniak-Karczewska, M., Simpson, M., Frankowski, R., Zgola-Grzeskowiak, A., Kloziński, A., Siwinska-Ciesielczyk, K., Klapiszewski, Ł., Niemczak, M., Owsianiak, M., **Heipieper, H.J., Chrzanowski, Ł.** (2023):
Sorption of ionic liquids in soil enriched with polystyrene microplastic reveals independent behavior of cations and anions
Chemosphere **341** , art. 139927
88. **Liu, B., Sträuber, H., Centler, F., Harms, H., Nunes da Rocha, U., Kleinsteuber, S.** (2023):
Functional redundancy secures resilience of chain elongation communities upon pH shifts in closed bioreactor ecosystems
Environ. Sci. Technol. **57** (46), 18350 - 18361
89. **Liu, X., Kümmel, S., Trapp, S., Richnow, H.H.** (2023):
Uptake and transformation of hexachlorocyclohexane isomers (HCHs) in tree growth rings at a contaminated field site
Environ. Sci. Technol. **57** (23), 8776 - 8784
90. **Liu, X., Wu, L., Kümmel, S., Gehre, M., Richnow, H.H.** (2023):
Determination of stable hydrogen isotopic composition and isotope enrichment factor at low hydrogen concentration
Anal. Chem. **95** (44), 16272 - 16278
91. Lo, H.-Y., Wink, K., **Nitz, H., Kästner, M., Belder, D., Müller, J.A., Kaster, A.-K.** (2023):
scMAR-Seq: a novel workflow for targeted single-cell genomics of microorganisms using radioactive labeling
mSystems **8** (6), e00998-23
92. **Logroño, W., Kleinsteuber, S., Kretzschmar, J., Harnisch, F., De Vrieze, J., Nikolausz, M.** (2023):
The microbiology of Power-to-X applications
FEMS Microbiol. Rev. **47** (2), fuad013

93. **López-Gálvez, J.**, Schiessl, K., Besmer, M.D., **Bruckmann, C., Harms, H., Müller, S.** (2023):
Development of an automated online flow cytometry method to quantify cell density and fingerprint bacterial communities
Cells **12** (12), art. 1559
94. Lorca, G.L., **Kleinsteuber, S.** (2023):
Women in microbial physiology and metabolism: 2022. Editorial
Front. Microbiol. **14** , art. 1268568
95. Mager, M., Pineda Hernandez, H., **Brandenburg, F.**, López-Maury, L., McCormick, A.J., Nürnberg, D.J., Orthwein, T., Russo, D.A., Victoria, A.J., Wang, X., Zedler, J.A.Z., Branco dos Santos, F., Schmelling, N.M. (2023):
Interlaboratory reproducibility in growth and reporter expression in the cyanobacterium *Synechocystis* sp. PCC 6803
ACS Synth. Biol. **12** (6), 1823 - 1835
96. **Magnúsdóttir, S., Saraiva, J.P., Bartholomäus, A., Soheili, M., Brizola Toscan, R., Zhang, J., Nunes da Rocha, U.** (2023):
Metagenome-assembled genomes indicate that antimicrobial resistance genes are highly prevalent among urban bacteria and multidrug and glycopeptide resistances are ubiquitous in most taxa
Front. Microbiol. **14** , art. 1037845
97. **Maskow, T., Schlosser, D.** (2023):
Lignocellulose-Verwertung durch Pilze mit metabolischer Wärme erfassen
Biospektrum **29** (3), 321 - 323
98. **Mehmood, T., Mustafa, B., Mackenzie, K., Ali, W., Sabir, R.I., Anum, W., Gaurav, G.K., Riaz, U., Xinghui, L., Peng, L.** (2023):
Recent developments in microplastic contaminated water treatment: Progress and prospects of carbon-based two-dimensional materials for membranes separation
Chemosphere **316** , art. 137704
99. **Mehmood, T., Peng, L., Salam, A., Prakash, J., Haider, M.** (2023):
Neglected atmospheric microplastic pollution in South Asia reflects a wider failure
Ecol. Inform. **73** , art. 101949
100. Michelsen, N., **Friesen, J., Strauch, G., Al-Balushi, Z.M., Bait Said, A.B.A., Al Balushi, H., Schmidt, M., Müller, T.** (2023):
Chemical composition of monsoon bulk precipitation in the Salalah area, Oman
Chem. Geol. **635** , art. 121621
Hauptzuordnung T5; Nebenzuordnung T7

101. **Min, N.**, Yao, J., Li, H., Chen, Z., Pang, W., Zhu, J., **Kümmel, S.**, Schaefer, T., Herrmann, H., **Richnow, H.H.** (2023):
Humic substance photosensitized degradation of phthalate characterized by ^2H and ^{13}C isotope fractionation
Environ. Sci. Technol. **57** (5), 1930 - 1939
102. **Min, N.**, Yao, J., Li, H., Zhu, J., **Kümmel, S.**, Schaefer, T., Herrmann, H., **Richnow, H.H.** (2023):
Carbon isotope fractionation of di-(2-ethylhexyl)-phthalate during photosensitized degradation by $\bullet\text{OH}$ and $\text{SO}_4^{\text{A}-}$ for characterization of reaction mechanisms
Chem. Eng. J. **475** , art. 145950
103. **Min, N.**, Yao, J., Zhu, J., **Kümmel, S.**, **Lechtenfeld, O.J.**, Schaefer, T., Herrmann, H., **Richnow, H.H.** (2023):
Carbon and hydrogen isotope fractionation of phthalates during photocatalysis reactions in aqueous solution containing Fe(III) complexes or iron minerals
Water Res. **247** , art. 120740
Hauptzuordnung T7; Nebenzuordnung T9
104. Moein Sadeghi, S.M., Panahandeh, T., Van Stan II, J.T., Babapour, S., **Friesen, J.** (2023):
Responses of canopy hydrometeorological parameters to oak dieback in the Mediterranean sparse forest, Iran
Agric. For. Meteorol. **343** , art. 109784
105. Nabila, , Ahmad, M., Althobaiti, A.T., Ali, W., Masood, K., Ramadan, M.F., Chaudhary, B., Zafar, M., Akhtar, M.S., Sultana, S., Zahmatkesh, S., **Mehmood, T.**, Azam, M., Asif, S. (2023):
Membrane-processed honey samples for pollen characterization with health benefits
Chemosphere **319** , art. 137994
106. Nyamjav, B., Badarch, A., Sangi, C., **Khurelbaatar, G.** (2023):
Improvement of treatment performance of the conventional wastewater treatment plant: A case study of the Central Wastewater Treatment Plant in Ulaanbaatar, Mongolia
Sustainability **15** (5), art. 4528
107. **Opel, F.**, Axmann, I.M., **Klähn, S.** (2023):
The molecular toolset and techniques required to build cyanobacterial cell factories
In: Bühler, K., Lindberg, P. (eds.)
Cyanobacteria in biotechnology. Applications and quantitative perspectives
Adv. Biochem. Eng. Biotechnol. **183**
Springer Nature, p. 65 - 103

108. **Opel, F., Itzenhäuser, M.A., Wehner, I., Lupacchini, S.,** Lauterbach, L., Lenz, O., **Klähn, S.** (2023):
Towards a synthetic hydrogen sensor in cyanobacteria: Functional production of an oxygen-tolerant regulatory hydrogenase in *Synechocystis* sp. PCC 6803
Front. Microbiol. **14** , art. 1122078
109. **Ouyang, W.-Y., Kümmel, S., Adrian, L.,** Zhu, Y.-G., **Richnow, H.H.** (2023):
Carbon and hydrogen stable isotope fractionation of sulfamethoxazole during anaerobic transformation catalyzed by *Desulfovibrio vulgaris* Hildenborough
Chemosphere **311, Part 2** , art. 136923
110. Page, T., Smith, P., Beven, K., Pianosi, F., **Sarrazin, F.,** Almeida, S., Holcombe, L., Freer, J., Chappell, N., Wagener, T. (2023):
Technical note: The CREDIBLE Uncertainty Estimation (CURE) toolbox: facilitating the communication of epistemic uncertainty
Hydrol. Earth Syst. Sci. **27** (13), 2523 - 2534
111. **Pan, M.,** Wang, Y., **Krömer, J.O.,** Zhu, X, Lin, M.K.T.H., Angelidaki, I. (2023):
A coculture of photoautotrophs and hydrolytic heterotrophs enables efficient upcycling of starch from wastewater toward biomass-derived products: Synergistic interactions impacting metabolism of the consortium
Environ. Sci. Technol. **57** (41), 15523 - 15532
112. Parus, A., Ciesielski, T., Woźniak-Karczewska, M., Ślachciński, M., Owsianiak, M., Ławniczak, Ł., Loibner, A.P., **Heipieper, H.J., Chrzanowski, Ł.** (2023):
Basic principles for biosurfactant-assisted (bio)remediation of soils contaminated by heavy metals and petroleum hydrocarbons – A critical evaluation of the performance of rhamnolipids
J. Hazard. Mater. **443, Part A** , art. 130171
113. Parus, A., Zdebelak, O., Ciesielski, T., Szumski, R., Woźniak-Karczewska, M., Framski, G., Baranowski, D., Niemczak, M., Zembrzuska, J., Cajthaml, T., **Heipieper, H.J., Chrzanowski, Ł.** (2023):
Can ionic liquids exist in the soil environment? Effect of quaternary ammonium cations on glyphosate sorption, mobility and toxicity in the selected herbicidal ionic liquids
J. Mol. Liq. **370** , art. 120981
114. **Rahman, K.Z., Al Saadi, S., Al Rawahi, M., Knappe, J., van Afferden, M., Moeller, L., Bernhard, K., Müller, R.A.** (2023):
A multi-functional nature-based solution (NBS) for greywater treatment and reuse at the same plot
Ecol. Eng. **191** , art. 106952

115. **Rahman, K.Z., Chen, X.,** Blumberg, M., **Bernhard, K., Müller, R.A., Mackenzie, K., Trabitzsch, R., Moeller, L.** (2023):
Effect of hydraulic loading rate on treatment performance of a pilot wetland roof treating greywater from a household
Water **15** (9), art. 3375
Hauptzuordnung T7; Nebenzuordnung T5
116. Raza, S., Zia-ur-Rehman, M., Alghamdi, S.A., Alghanem, S.M.S., Usman, M., Ahmed, R., **Abdul Waris, A.,** Rizwan, M., Abeer, A.H.A., Al-Haithloul, H.A.S. (2023):
Effects of zinc-enriched amino acids on rice plants (*Oryza sativa* L.) for adaptation in saline-sodic soil conditions: Growth, nutrient uptake and biofortification of zinc
S. Afr. J. Bot. **162** , 370 - 380
117. **Reino, C., Ding, C., Adrian, L.** (2023):
Continuous cultivation of *Dehalococcoides mccartyi* with brominated tyrosine avoids toxic byproducts and gives tight reactor control
Water Res. **229** , art. 119396
118. Reuben, R.C., Beugnon, R., **Jurburg, S.D.** (2023):
COVID-19 alters human microbiomes: a meta-analysis
Front. Cell. Infect. Microbiol. **13** , art. 1211348
119. Reuben, R.C., Langer, D., Eisenhauer, N., **Jurburg, S.D.** (2023):
Universal drivers of cheese microbiomes
iScience **26** (1), art. 105744
120. **Roland, U.,** Hebestreit, A., Taoussanis, A., Eiserbeck, E., **Holzer, F.,** Wotzka, A., Wohlrab, S. (2023):
Cost-effective selective hydrogen sensor based on the combination of catalytic spillover effect and impedance measurement
Int. J. Hydrog. Energy **48** (96), 37550 - 37562
121. Rosado, P.M., Cardoso, P.M., Rosado, J.G., Schultz, J., **Nunes da Rocha, U.,** Keller-Costa, T., Peixoto, R.S. (2023):
Exploring the potential molecular mechanisms of interactions between a probiotic consortium and its coral host
mSystems **8** (1), e00921-22
122. **Saeidi, N., Harnisch, F.,** Presser, V., **Kopinke, F.-D., Georgi, A.** (2023):
Electrosorption of organic compounds: State of the art, challenges, performance, and perspectives
Chem. Eng. J. **471** , art. 144354

123. **Saraiva, J.P.**, Bartholomäus, A., **Brizola Toscan, R.**, Baldrian, P., **Nunes da Rocha, U.** (2023):
Recovery of 197 eukaryotic bins reveals major challenges for eukaryote genome reconstruction from terrestrial metagenomes
Mol. Ecol. Resour. **23** (5), 1066 - 1076
124. **Schirmer, M.**, **Dusny, C.** (2023):
Microbial single-cell mass spectrometry: status, challenges, and prospects
Curr. Opin. Biotechnol. **83** , art. 102977
125. **Schneider, H.**, **Lai, B.**, **Krömer, J.** (2023):
Interference of electron transfer chain inhibitors in bioelectrochemical systems
Electrochem. Commun. **152** , art. 107527
126. **Schneider, H.**, **Lai, B.**, **Krömer, J.** (2023):
Utilizing cyanobacteria in biophotovoltaics: An emerging field in bioelectrochemistry
In: Bühler, K., Lindberg, P. (eds.)
Cyanobacteria in biotechnology. Applications and quantitative perspectives
Adv. Biochem. Eng. Biotechnol. *183*
Springer Nature, p. 281 - 302
127. **Schwab, L.**, **Prinsen, L.**, Nowack, G., **Popp, D.**, Noll, M., **Vogt, C.**, Wagner, M. (2023):
Sulfate reduction and homoacetogenesis at various hypersaline conditions: Implications for H₂ underground gas storage
Front. Energy Res. **11** , art. 1125619
Hauptzuordnung T7; Nebenzuordnung T8
128. Schwanemann, T., Urban, E.A., **Eberlein, C.**, Gätgens, J., Rago, D., Krink, M., Nikel, P.I., **Heipieper, H.J.**, Wynands, B., Wierckx, N. (2023):
Production of (hydroxy)benzoate-derived polyketides by engineered *Pseudomonas* with *in situ* extraction
Bioresour. Technol. **388** , art. 129741
129. Sharaf, A., Ndiribe, C.C., Omotoriogun, T.C., Abueg, L., Badaoui, B., Markey, F.J.B., Beedessee, G., Diouf, D., Duru, V.C., Ebuzome, C., **Eziuzor, S.C.**, Fakim, Y.J., Formenti, G., Ghanmi, N., Guerfali, F.Z., Houaga, I., Ideozu, J.E., Katee, S.M., Khayi, S., Kuja, J.O., Kwon-Ndung, E.H., Marks, R.A., Moila, A.M., Mungloo-Dilmohamud, Z., Muzemil, S., Nigussie, H., Osuji, J.O., Ras, V., Tchichoua, Y.H., Zoclanclounon, Y.A.B., Tolley, K.A., Ziyomo, C., Mapholi, N., Muigai, A.W.T., Djikeng, A., Ebenezer, T.E. (2023):
Bridging the gap in African biodiversity genomics and bioinformatics
Nat. Biotechnol. **41** (9), 1348 - 1354

130. Silva, S.G., **Homsí, M.N.**, Keller-Costa, T., **Nunes da Rocha, U.**, Costa, R. (2023):
Natural product biosynthetic potential reflects macroevolutionary diversification within a
widely distributed bacterial taxon
mSystems **8** (6), e00643-23
Hauptzuordnung T7; Nebenzuordnung T9
131. **Sippel, I., Moeller, L., Friesen, J.** (2023):
Cost-effective method for estimation of tree crown density in urban settings using a
smartphone
Blue-Green Syst. **5** (2), 121 - 134
132. **Smaluch, K., Dusny, C.,** Kohlheyer, D., Grünberger, A. (2023):
Mikroskalige Massenbilanzierung in mikrofluidischen Umgebungen
Biospektrum **29** (5), 534 - 535
133. **Smaluch, K.,** Wollenhaupt, B., Steinhoff, H., Kohlheyer, D., Grünberger, A., **Dusny, C.**
(2023):
Assessing the growth kinetics and stoichiometry of *Escherichia coli* at the single-cell
level
Eng. Life Sci. **23** (1), e2100157
134. Soder-Walz, J.M., Wasmund, K., **Deobald, D.,** Vicent, T., **Adrian, L.,** Marco-Urrea, E.
(2023):
Respiratory protein interactions in *Dehalobacter* sp. strain 8M revealed through genomic
and native proteomic analyses
Environ. Microbiol. **25** (11), 2604 - 2620
135. Stöckl, M., Lange, T., **Izadi, P.,** Bolat, S., Teetz, N., **Harnisch, F.,** Holtmann, D. (2023):
Application of gas diffusion electrodes in bioeconomy: An update
Biotechnol. Bioeng. **120** (6), 1465 - 1477
136. Straessner, R., **Nikolausz, M.,** Silve, A., Nazarova, N., Wuestner, R., Papachristou, I.,
Akaberi, S., Leber, K., Mueller, G., Frey, W. (2023):
Holistic exploitation of pulsed electric field (PEF)-treated and lipid
extracted microalgae *Auxenochlorella protothecoides*, utilizing anaerobic digestion (AD)
Algal Res. **69** , art. 102950
137. Strotmann, U., Thouand, G., Pagga, U., Gartiser, S., **Heipieper, H.J.** (2023):
Toward the future of OECD/ISO biodegradability testing-new approaches and
developments
Appl. Microbiol. Biotechnol. **107** (7-8), 2073 - 2095

138. Sun, Z., Wei, Y., Song, X., Higgins, B.T., Huang, Z., Hao, W., **Li, Meng** (2023):
Using a microbial fuel cell to balance the carbon-nitrogen mismatch in submerged fixed-bed reactors for the resilient treatment of mariculture wastewater
J. Water Process Eng. **53** , art. 103629
139. **Toepel, J.**, Karande, R., **Bühler, B.**, **Bühler, K.**, **Schmid, A.** (2023):
Photosynthesis driven continuous hydrogen production by diazotrophic cyanobacteria in high cell density capillary photobiofilm reactors
Bioresour. Technol. **373** , art. 128703
140. **Toepel, J.**, Karande, R., **Klähn, S.**, **Bühler, B.** (2023):
Cyanobacteria as whole-cell factories: current status and future perspectives
Curr. Opin. Biotechnol. **80** , art. 102892
141. **Tüllinghoff, A.**, **Djaya-Mbissam, H.**, **Toepel, J.**, **Bühler, B.** (2023):
Light-driven redox biocatalysis on gram-scale in *Synechocystis* sp. PCC 6803 via an *in vivo* cascade
Plant Biotechnol. J. **21** (10), 2074 - 2083
142. Ud Din, M.M., **Khan, M.I.**, Azam, M., Ali, M.H., Qadri, R., Naveed, M., Nasir, A. (2023):
Effect of biochar and compost addition on mitigating salinity stress and improving fruit quality of tomato
Agronomy-Basel **13** (9), art. 2197
143. **Ude, E.O.**, **Haas, J.**, **Kaiyoum, M.K.**, **Ding, C.**, **Adrian, L.** (2023):
Effects of reducing, stabilizing, and antibiotic agents on “*Candidatus Kuenenia stuttgartiensis*”
Appl. Microbiol. Biotechnol. **107** (5-6), 1829 - 1843
144. Veen, J., Jang, H., Raubenheimer, D., van Pinxteren, B.O.C.M., Kandza, V., Meirmans, P.G., van Dam, N.M., **Dunker, S.**, **Hoffmann, P.**, **Worrich, A.**, Janmaat, K.R.L. (2023):
Development of embodied capital: diet composition, foraging skills, and botanical knowledge of forager children in the Congo Basin
Front. Ecol. Evol. **11** , art. 935987
Hauptzuordnung T5; Nebenzuordnung T7
145. **Vogt, C.**, **Song, Z.**, **Richnow, H.H.**, **Musat, F.** (2023):
Carbon and hydrogen stable isotope fractionation due to monooxygenation of short-chain alkanes by butane monooxygenase of *Thauera butanivorans* Bu-B1211
Front. Microbiol. **14** , art. 1250308

146. Wang, M., Ji, Q., **Lai, B.**, Liu, Y., Mei, K. (2023):
Structure-function and engineering of plant UDP-glycosyltransferase
Comp. Struct. Biotechnol. J. **21** , 5358 - 5371
147. Wasmund, K., Trueba-Santiso, A., Vicent, T., **Adrian, L.**, Vuilleumier, S., Marco-Urrea, E. (2023):
Proteogenomics of the novel *Dehalobacterium formicoaceticum* strain EZ94 highlights a key role of methyltransferases during anaerobic dichloromethane degradation
Environ. Sci. Pollut. Res. **30** (33), 80602 - 80612
148. Werner, K.A., Feyen, L., **Hübner, T.**, Brüggemann, N., Prost, K., Grohmann, E. (2023):
Fate of horizontal-gene-transfer markers and beta-lactamase genes during thermophilic composting of human excreta
Microorganisms **11** (2), art. 308
149. **Wick, L.Y.** (2023):
Pilze als Beweger und Gestalter im Untergrund
Biospektrum **29** (7), 725 - 727
150. Wilms, W., Parus, A., Homa, J., Batycka, M., Niemczak, M.,
Woźniak-Karczewska, M., Trzebny, A., Zembrzuska, J., Dabert, M., Tánácsics, A., Cajthaml, T., **Heipieper, H.J.**, **Chrzanowski, Ł.** (2023):
Glyphosate *versus* glyphosate based ionic liquids: Effect of cation on glyphosate biodegradation, *soxA* and *phnJ* genes abundance and microbial populations changes during soil bioaugmentation
Chemosphere **316** , art. 137717
151. Wilms, W., Woźniak-Karczewska, M., Niemczak, M., Parus, A., Frankowski, R., Wolko, L., Czarny, J., Piotrowska-Cyplik, A., Zgoła-Grzeškowiak, A., **Heipieper, H.J.**, **Chrzanowski, Ł.** (2023):
2,4-D *versus* 2,4-D based ionic liquids: Effect of cation on herbicide biodegradation, *tfdA* genes abundance and microbiome changes during soil bioaugmentation
J. Hazard. Mater. **452** , art. 131209
152. Wirsching, J., Chavez Rodriguez, L., Ditterich, F., Pagel, H., He, R., **Uksa, M.**, Zwiener, C., Kandeler, E., Poll, C. (2023):
Temperature and soil moisture change microbial allocation of pesticide-derived carbon
Eur. J. Soil Sci. **74** (5), e13417
153. Wolthuis, J.C., **Magnúsdóttir, S.**, Stigter, E., Tang, Y.F., Jans, J., Gilbert, M., van der Hee, B., Langhout, P., Gerrits, W., Kies, A., de Ridder, J., van Mil, S. (2023):
Multi-country metabolic signature discovery for chicken health classification
Metabolomics **19** (2), art. 9

154. Wu, L., Hou, C., Wang, X., **Guo, P.**, Zhang, X., Jin, Y., Gong, Y., Chen, X., Li, H. (2023):
New insights into the mechanism for $^1\text{O}_2$ -Dominated peroxymonosulfate activation in saline solution: In-situ generation of H_2O_2 to inhibit the AOX formation
Chem. Eng. J. **474** , art. 145698
155. Wu, R., Shen, R., Liang, Z., Zheng, S., Yang, Y., Lu, Q., **Adrian, L.**, Wang, S. (2023):
Improve niche colonization and microbial interactions for organohalide-respiring-bacteria-mediated remediation of chloroethene-contaminated sites
Environ. Sci. Technol. **57** (45), 17338 - 17352
156. Wynands, B., Wierckx, N., **Heipieper, H.J.**, **Eberlein, C.** (2023):
Pseudomonas taiwanensis VLB120 als Plattform für die Biotechnologie
Biospektrum **29** (6), 686 - 688
157. Xin, Y., **Zhang, J.**, Lu, T., Wei, Y., Shen, P. (2023):
Response of prokaryotic, eukaryotic and algal communities to heavy rainfall in a reservoir supplied with reclaimed water
J. Environ. Manage. **334** , art. 117394
158. Zhang, J., Ma, B., Hu, C., Wei, Y., Liu, G., Ulbricht, M., **Richnow, H.-H.** (2023):
Water safety consideration of the dual nature of virus in global urban water cycle: from source to reuse
ACS ES&T Water **3** (8), 1980 - 1983
159. Zhang, S., Ouyang, X., Xia, X., Wen, W., **Adrian, L.**, **Schüürmann, G.** (2023):
Mechanistic insight into the *Dehalococcoides*-mediated reductive dechlorination of polychlorinated biphenyls
Phys. Chem. Chem. Phys. **25** (22), 15193 - 15199
Hauptzuordnung T7; Nebenzuordnung T9
160. Zhang, S., Wen, W., Xia, X., Ouyang, W., Mai, B.-X., **Adrian, L.**, **Schüürmann, G.** (2023):
Insight into the mechanism underlying *Dehalococcoides mccartyi* strain CBDB1-mediated B_{12} -dependent aromatic reductive dehalogenation
Environ. Sci. Technol. **57** (29), 10773 - 10781
161. **Zheng, T.**, **Miltner, A.**, **Liang, C.**, **Nowak, K.M.**, **Kästner, M.** (2023):
Turnover of bacterial biomass to soil organic matter via fungal biomass and its metabolic implications
Soil Biol. Biochem. **180** , art. 108995

Veröffentlichungen in anderen Zeitschriften

162. Förstner, K.U., Becker, A., Blom, J., Bork, P., Clavel, T., Dieckmann, M., Goesmann, A., Götz, B., Gübitz, T., Hufsky, F., Jünemann, S., Körner, M.-L., Marz, M., **Nunes da Rocha, U.**, Overmann, J., Pühler, A., Rebholz-Schuhmann, D., Sczyrba, A., Stoye, J., Vandendorpe, J., Van Rossum, T., McHardy, A. (2023): NFDI4Microbiota – national research data infrastructure for microbiota research *Rio* **9** , e110501
163. **Harnisch, F., Lehneis, R.** (2023):
The power grids need to be made ready for a circular and bio-based economy
Next Sustainability **2** , art. 100010
Hauptzuordnung T7; Nebenzuordnung T5
164. **Moeller, L., Trabitzsch, R.** (2023):
Studierende entwickeln Gründachkonzepte für eine Leipziger Grundschule
GebäudeGrün **2023** (1), 47 - 49
Hauptzuordnung T7; Nebenzuordnung T5
165. **Moeller, L., Trabitzsch, R., Bernhard, K., Schlosser, D., Wollschläger, N., Otto, P.** (2023):
Die Gründachforschung in Leipzig
GebäudeGrün **2023** (4), 22 - 25
Hauptzuordnung T7; Nebenzuordnung T5
166. **Tamisier, M., Musat, F., Richnow, H.H., Vogt, C., Schmidt, M.** (2023):
On the corrosion of ductile cast iron by sulphate reducing bacteria - implications for long-term nuclear waste repositories
Front. Geochem. **1** , art. 1244283

Bücher

167. Bouhlef, Z., **Köpke, J.**, Mina, M., Smakhtin, V. (2023):
Global bottled water industry: a review of impacts and trends
United Nations University Institute for Water, Environment and Health (UNU INWEH),
Hamilton, 41 pp.
168. **Harnisch, F.**, Sleutels, T., ter Heijne, A. (2023):
Basic electrochemistry for biotechnology
Wiley-VCH, 221 pp.

Buchherausgaben

169. **Bühler, K.**, Lindberg, P. (eds., 2023):
Cyanobacteria in biotechnology: Applications and quantitative perspectives
Adv. Biochem. Eng. Biotechnol. 183
Springer Nature, 352 pp.

Buchkapitel

170. **Shee, A., Mackenzie, K.** (2023):
Metallic copper as dehalogenation catalyst in the treatment of water and wastewaters
In: Fernández González, D., Verdeja González, L.F. (eds.)
Copper - From the mineral to the final application
InTechOpen, London,
171. Zimmermann, C., **Till, P.**, Danner, C., Mach-Aigner, A.R. (2023):
Genetic regulation networks in cellulase and hemicellulase production in an
industrially applied cellulase producer *Trichoderma reesei*
In: Bisaria, V. (ed.)
Handbook of biorefinery research and technology
Springer, Dordrecht, p. 1 - 23

Berichte

172. Engelmann, R.A., Friedrich, A., **Moeller, L.**, Otto, P., Richter, A. (2023):
Die Grüne Stadt. Viel Potenzial für neue Lebensräume. Informationsbroschüre zur
Dachbegrünung in Leipzig und zum Modell-Gründach im Botanischen Garten der
Universität Leipzig
Botanischer Garten der Universität Leipzig, Leipzig, 20 pp.
173. **Müller, R., van Afferden, M., Khurelbaatar, G., Ueberham, M., Reese, M., Fischer,
H.,** Geyler, S., Hofmann, E., Wüstneck, T., Ziegenbein, T., Sahlbach, T., Winkler, U.,
Berbig, J., Mohr, M., Stefan, M. (2023):
Wege zum abflussfreien Stadtquartier - Potentiale, Wirkungen und Rechtsrahmen des
ortsnahen Schmutz- und Regenwassermanagements. Abschlussbericht
Texte Umweltbundesamt 34/2023
Umweltbundesamt, Dessau-Roßlau, 201 S.
Hauptzuordnung T7; Nebenzuordnung T5

Preprints

174. **Nunes da Rocha, U., Kasmanas, J.C., Toscan, R., Sanches, D.S., Magnúsdóttir, S., Saraiva, J.P.** (2023):
Simulation of 69 microbial communities indicates sequencing depth and false positives are major drivers of bias in Prokaryotic metagenome-assembled genome recovery
bioRxiv 10.1101/2023.05.02.539054
175. Reis, M., **Brandenburg, F.**, Knopp, M., Flachbart, S., Bräutigam, A., Metzger, S., Gould, S.B., Eisenhut, M. (2023):
Hemi Manganese Exporters 1 and 2 enable manganese transport at the plasma membrane in cyanobacteria
bioRxiv 10.1101/2023.02.16.528846
176. Treiber-Kleinke, C., Berger, A., **Adrian, L.**, Budisa, N., Kokschi, B. (2023):
Escherichia coli adapts metabolically to 6- and 7-fluoroindole, enabling proteome-wide fluorotryptophan substitution
bioRxiv 10.1101/2023.09.25.559291

UFZ-Autorenregister

A

Abdul Waris, A.	116
Abdulkadir, N.	1, 66
Adrian, L.	7, 14, 19, 22, 57, 59, 75, 109, 117, 134, 143, 147, 155, 159, 160, 176
Akay, C.	19
Al Rawahi, M.	114
Al Saadi, S.	114
Altenburger, R.	40
Aslam, S.	8
Aurich, A.	78
Avila Santos, A.P.	10

B

Balda, M.	11
Baleeiro, F.C.F.	12, 13
Becker, D.	16
Bernhard, K.	24, 114, 115, 165
Bin-Hudari, M.S.	34
Bonatelli, M.L.	19, 36
Bonk, F.	16
Borim Correa, F.	1, 28
Borim Corrêa, F.	25
Bozan, M.	22
Brandenburg, F.	95, 175
Breulmann, M.	24
Brizola Toscan, R.	1, 96, 123
Bruckmann, C.	93
Bühler, B.	139, 140, 141
Bühler, K.	22, 71, 84, 139, 169

C

Centler, F.	16, 88
Chafra, F.	28
Chatzinotas, A.	15, 24, 63, 65
Chen, X.	115
Chrzanowski, Ł.	87, 112, 113, 150, 151
Chávez Morejón, M.	29, 30
Cárdenas Espinosa, M.J.	26

D

Dai, S.	34
Davoudpour, Y.	35
Deobald, D.	57, 75, 134
Ding, C.	19, 117, 143
Djaya-Mbissam, H.	141
Dunker, S.	144
Dusny, C.	43, 124, 132, 133
Dzofou Ngoumelah, D.	37, 38

E

Eberlein, C.	26, 128, 156
Eberwein, M.	57
Escher, B.I.	40
Eziuzor, S.C.	129

F

Fischer, H.	173
Friesen, J.	15, 41, 76, 100, 104, 131

G

Garmasukis, R.	42, 43
Gehre, M.	23, 90
Georgi, A.	9, 11, 44, 45, 122
Grosch Schroeder, B.	47
Guo, P.	154
Guo, Y.	49

H

Haas, J.	143
Haenelt, S.	51, 52
Harms, H.	1, 16, 24, 47, 60, 88, 93
Harnisch, F.	21, 29, 30, 34, 37, 38, 49, 64, 68, 69, 70, 79, 92, 122, 135, 163, 168
Haus, P.	64
Hein, M.	40
Heipieper, H.J.	17, 26, 87, 112, 113, 128, 137, 150, 151, 156
Hellmold, N.	57
Hinkel, M.	77
Hoffmann, P.	144
Holzer, F.	62, 120
Homsí, M.N.	130
Horst, A.	54
Hu, D.	66
Hübner, T.	148
Hunger, S.	78

I

Itzenhäuser, M.A.	108
Izadi, P.	32, 64, 68, 69, 70, 135
İstanbulu, H.B.	47

J

Jehmlich, N.	74
Jing, Y.	8
Jurbug, S.D.	10, 39, 65, 118, 119

K

Kabiru Nata'ala, M.	10
Kästner, M.	2, 3, 58, 91, 161
Kaiyoum, M.K.	143
Kallies, R.	24, 63, 66
Karagulyan, M.	2, 3
Karakoç, C.	46
Kas, A.	64, 68, 69, 70
Kasmanas, J.C.	10, 52, 174
Keller, N.-S.	34
Kenkel, A.	71, 84
Keyikoğlu, R.	72, 73
Khan, M.I.	5, 142
Khan, N.	74
Khurelbaatar, G.	41, 53, 106, 173
Klähn, S.	18, 107, 108, 140
Klaes, S.	14, 75
Kleinsteuber, S.	12, 13, 16, 19, 88, 92, 94
Knappe, J.	76, 114
Knecht, C.A.	77
Köck, W.	40
Köhler, R.	45
Köpke, J.	167
Kopinke, F.-D.	11, 44, 122
Korth, B.	34, 79
Kraus, M.	62
Krömer, J.	81, 125, 126
Krömer, J.O.	111
Kuchenbuch, A.	38
Kümmel, S.	23, 35, 57, 89, 90, 101, 102, 103, 109

L

Lai, B.	48, 80, 81, 125, 126, 146
Laufer, J.	15
Lechtenfeld, O.J.	103
Lehneis, R.	163
Leipold, S.	40
Li, Meng	138
Li, S.	83
Liang, C.	161
Liao, K.-P.	19
Lipperra, M.C.	85, 86
Liu, B.	88
Liu, X.	89, 90
Liu, Y.	19
Logroño, W.	31, 47, 92
Lupacchini, S.	108
López-Gálvez, J.	93

M

Mackenzie, K.	11, 44, 45, 98, 115, 170
Madaj, A.-M.	39
Madan, S.	75
Mäusezahl, I.	77
Magnúsdóttir, S.	20, 96, 153, 174
Maskow, T.	97
Mehmood, T.	4, 50, 55, 56, 98, 99, 105
Miltner, A.	2, 3, 161

UFZ-Autorenregister

Min, N.	101, 102, 103
Moeller, L.	114, 115, 131, 164, 165, 172
Müller, J.A.	52, 77, 91
Müller, R.	173
Müller, R.A.	24, 114, 115
Müller, S.	1, 27, 49, 83, 93
Müller, T.	100
Musat, F.	52, 145, 166
Musat, N.	22, 33, 35, 51, 52

N

Nikolausz, M.	47, 60, 92, 136
Nitz, H.	91
Nivala, J.	77
Nowak, K.M.	8, 161
Nunes da Rocha, U.	1, 10, 28, 52, 66, 82, 88, 96, 121, 123, 130, 162, 174

O

Oni, F.	28
Opel, F.	107, 108
Ouyang, W.-Y.	109

P

Pan, M.	111
Pohl, J.	26
Popp, D.	16, 19, 127
Prinsen, L.	127

R

Raab, J.	12
Rahman, K.Z.	114, 115
Reemtsma, T.	19
Reese, M.	173
Reino, C.	117
Richnow, H.-H.	51, 158
Richnow, H.H.	35, 52, 89, 90, 101, 102, 103, 109, 145, 166
Rohwerder, T.	19
Roland, U.	62, 120
Rosa, L.F.M.	49

S

Saeidi, N.	9, 122
Sanne, M.	41
Saraiva, J.P.	1, 10, 82, 96, 123, 174
Sarrazin, F.	110
Schattenberg, F.	1, 27
Scheer, B.	59
Schierz, A.	45
Schirmer, M.	124
Schlosser, D.	67, 97, 165
Schmid, A.	22, 43, 139
Schmidgall, T.	26
Schmidt, M.	22, 35, 47, 61, 166

UFZ-Autorenregister

Schneider, H.	125, 126
Scholz, S.	40
Schüürmann, G.	11, 159, 160
Schultz, C.	19
Schwab, L.	127
Shee, A.	170
Sipoli Sanches, D.	10
Sippel, I.	131
Smaluch, K.	132, 133
Soheili, M.	96
Song, Z.	145
Sträuber, H.	12, 13, 88
Strauch, G.	100
Sühnholz, S.	44

T

Tal, T.	10, 40
Tamisier, M.	166
Till, P.	171
Toepel, J.	139, 140, 141
Toscan, R.	174
Trabitzsch, R.	115, 164, 165
Tüllinghoff, A.	141

U

Ude, E.O.	143
Ueberham, M.	173
Uksa, M.	152

V

van Afferden, M.	24, 41, 76, 114, 173
Vienken, T.	86
Vogt, C.	34, 127, 145, 166
von Bergen, M.	74

W

Wagner, G.	26
Wang, G.	52
Wehner, I.	108
Werban, U.	85, 86
Wick, L.Y.	6, 40, 74, 149
Wollschläger, N.	165
Worrich, A.	144
Woszidlo, S.	11, 45
Wu, L.	90

X

Xiong, B.	6
-----------	---

Z

Zhang, J.	96, 157
Zheng, T.	161

Herausgeber

Helmholtz-Zentrum für Umweltforschung GmbH - UFZ

Permoserstraße 15
04318 Leipzig
www.ufz.de

Bearbeitung

Erika Schnauková

Michael Garbe

Heike Reichelt