

Martin Bertau – Publikationen

Originalpublikationen

1. I. Aubel, S. Zug, M. Bertau (2024) Potential of Innovative Concepts STEM Education for Industry 4.0: CrossLab an Example. *Chem. Ing. Tech.* **96**, 1455-1459. (DOI: 10.1002/cite.202400114)
2. I. Aubel, S. Krinke R. Mende, H. Zeidler, S. Zuig, M. Bertau (2024) Industry 4.0-Driven STEM-Lab Modernization: Balancing Flexibility and Sustainability. *Chem. Ing. Tech.* **96**, 1482-1489. (DOI: 10.1002/cite.202300236)
3. K. Götze, D. Kaiser, I. Aubel, V. Herdegen, M. Bertau (2024) Industry 4.0 Ready: Transforming STEM Laboratory Courses – Continuous Distillation as Example. *Chem. Ing. Tech.* **96**, 1498-1508. (DOI: 10.1002/cite.202300233)
4. E. Donato, F. Medici, V. Chirolì, A. Puglisi, C. Rogoll, P. Fröhlich, M. Bertau, G. Zanoni, M. Benaglia (2024) Recycling of Rare Earth Elements: From E-Waste to Stereoselective Catalytic Reactions, *ChemSusChem* **2024**, e202401787. (DOI: 10.1002/cssc.202401787)
5. S. Strohmaier, M. Pillai, J. Weitzer, E. Han, L. Zenk, B.M. Birmann, M. Bertau, G. Caniglia, M.D. Laubichler, G. Steiner, E.S. Schernhammer (2024) The relationship between Big Five personality traits and depression in the German-speaking D-A-CH region including an investigation of potential moderators and mediators. *Eur. J. Investig. Health Psychol. Educ.* **14**, 2157-2174. (DOI: 10.3390/ejihpe14080144)
6. G. Steiner, M.D. Laubichler, M. Bertau, L. Zenk, J. Weitzer, E. Han, B.M. Birmann, D. Ziganshina Lienhard, G. Caniglia, E.S. Schernhammer (2024) Navigating through poly-crises towards One Health: Mirage or tangible prospect? Insights from the Transatlantic Research Lab on Complex Societal Challenges. *GAIA* **33**, 202-203. (DOI: 10.14512/gaia.33.1.18)
7. N. Haneklaus, D.A. Mwalongo, J.B. Lisuma, A. Amasi, J. Mwimanzi, T. Bituh, J. Ćirić, J. Nowak, U. Ryszko, P. Rusek, A. Maged, E. Bilal, H. Bellefqih, K. Qamouche, J. Ait Brahim, R. Beniazza, H. Mazouz, E.M. van der Merwe, W. Truter, H.D. Kyomuhimbo, H. Brink, G. Steiner, M. Bertau, R.S. Soni, A.W. Patwardhan, P.K. Ghosh, T.T. Kievele, K.M. Mtei, S. Wacławek (2024) Rare earth elements and uranium in Minjingu phosphate fertilizer products: Plant food for thought. *Resour. Conserv. Recycl.* **207**, 107694.
8. L. Beckmann, S. Friedrich, D. Kaiser, B. Störr, F. Mertens, H. Atiad, S. Wohlrab, J. Llorca, M. Bertau (2024) Sustainable methyl formate generation by dehydrogenation of green methanol over Cu₂SiO₂/MgO. *J. Ind. Eng. Chem.*, in press. (DOI: 10.1016/j.jiec.2024.03.026)
9. L. Blaesing, A. Walnsch, S. Hippmann, C. Modrzynski, C. Weidlich, M. Bertau (2024) Production of ferrosilicon and other ferroalloys from Silicon wafer breakage and red mud. *ACS Sustainable Resour. Manage.* **1**, 404–416 (DOI: 10.1021/acssusresmg.3c00035)
10. E. Han, J. Weitzer, B. Birmann, M. Bertau, L. Zenk, G. Caniglia, M.D. Laubichler, E.S. Schernhammer, G. Steiner (2024) Association of personality traits and socio-environmental factors with COVID-19 pandemic-related conspiratorial thinking in the D-A-CH region. *SN Social Sci.* **4**, 41. (DOI: 10.1007/s43545-023-00790-9)

In Druck:

1. M. Bertau, F.-W. Wellmer, R.W. Scholz, M. Mew, L. Zenk, I. Aubel, P. Fröhlich, M. Raddant, G. Steiner (2024) The Future of Phosphate Rock-Processing – Why We Have to Leave Trodden Paths. *ChemSusChem* e202401155. (<https://doi.org/10.1002/cssc.202401155>)
2. O. Amiri, K.A. Qurbani, K.A. Babakr, P.Kh. Omer, L.J. Guo, H.H.R. Najmuldeen, M. Bertau, P.H. Mahmood, S.S. Ahmed, M.A. Jamal (2024) Memory effect of bacteria-killing properties of piezo-catalysts through defect engineering. *Adv. NanoBiomed Res.*, in press. (DOI: 10.1002/anbr.202300144)

Buchbeiträge

1. I. Steffelbauer, L. Zenk, J. Weitzer, M. Bertau, C. Jaeger, G. Caniglia, M.D. Laubichler, E.S. Schernhammer, G. Steiner, Working on COVID-19 under COVID-19 Conditions: Transatlantic, Interdisciplinary Research on Complex Societal Challenges during the Pandemic Years 2020–2021 and New Forms of Collaboration in Science. In: C. Hainzl, D. Dialer, H Kuske (Hrsg.), *Gesundheitspolitik und Gesellschaft in der COVID-19-Krise - Eine globale Herausforderung*, Lit Verlag, Wien, S. 333-345. (ISBN 978-3-643-66100-5)
2. G. Steiner, I. Steffelbauer, M. Laubichler, L. Zenk, E. Schernhammer, B.M. Birmann, M. Bertau, G. Caniglia, K. Mühlmann, L. Satalkina, J. Weitzer (2023) Complexity Literacy for a Sustainable Digital Transition: Cases and Arguments From Transdisciplinary Education Programs. In: L. Keller, G. Michelsen, M. Dür, S. Bachri, M. Zint, Michaela (Hrsg.) *Digitalization, New Media, and Education for Sustainable Development*. IGI Global, Hershey, PA, USA, S. 56-75. (ISBN 978-1668424971) (DOI: 10.4018/978-1-7998-5033-5.ch005)
3. M. Bertau (2022) Metals and intermetallics - resources: ores, recycling and urban mining. In: R. Pöttgen, T. Jüstel, C.A. Strassert (Hrsg.), *Applied Inorganic Chemistry – Volume 1: From Construction Materials to technical gases*, De Gruyter, Berlin, S. 113-122, (ISBN: 978-3-11-073814-8). (DOI: 10.1515/9783110733143-008)
4. M. Bertau, P. Fröhlich, S. Pavón (2022) Ionic solids - resources: ores, recycling and urban mining. In: R. Pöttgen, T. Jüstel, C.A. Strassert (Hrsg.), *Applied Inorganic Chemistry – Volume 2: From energy storage to photofunctional materials*, De Gruyter, Berlin, S. 101-130, (ISBN: 978-3-11-079878-4). (DOI: 10.1515/9783110733471-032)
5. O. Janka, M. Bertau, R. Pöttgen (2022) Slags as materials resource. In: R. Pöttgen, T. Jüstel, C.A. Strassert (Hrsg.), *Applied Inorganic Chemistry – Volume 2: From energy storage to photofunctional materials*, De Gruyter, Berlin, S. 166-178, (ISBN: 978-3-11-079878-4). (DOI: 10.1515/9783110798890-009)
6. M. Bertau, T. Jüstel, R. Pöttgen, C.A. Strassert (2022) Chemical products: gradients, energy balances, entropy. In: R. Pöttgen, T. Jüstel, C.A. Strassert (Hrsg.), *Applied Inorganic Chemistry – Volume 3: From magnetic to bioactive materials*, De Gruyter, Berlin, S. 465-477, (ISBN: 978-3-11-073837-7-4). (DOI: 10.1515/9783110798890-012)