

# Publikationen Dr.-Ing. Bernd Wetzel

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## Buchbeiträge

- [1] J. Hausmann, J. Krummenacker, A. Klingler und B. Wetzel, „Improvement of fatigue strength of carbon fiber reinforced polymers by matrix modifications for ultrafast rotating flywheels“ in: *Frontiers of Science and Technology*, de Gruyter, 2021, S. 279–289, doi: 10.1515/9783110584455-018.
- [2] E. I. Akpan, X. Shen, B. Wetzel und K. Friedrich, „Design and synthesis of polymer nanocomposites“ in *Polymer Composites with Functionalized Nanoparticles*, Elsevier, 2019, S. 47–83, doi: 10.1016/b978-0-12-814064-2.00002-0.
- [3] F. Hauptert und B. Wetzel, „Reinforcement of Thermosetting Polymers by the Incorporation of Micro- and Nanoparticles“ in *Polymer Composites*, Boston, MA.: Springer-Verlag, S. 45–62, doi: 10.1007/0-387-26213-x\_3.
- [4] S. Komatsu, B. Wetzel und K. Friedrich, „Novel Liquid Crystal Polymers with Tailored Chemical Structure for High Barrier, Mechanical and Tribological Performance“ in *Liquid Crystalline Polymers*, S. 15–39, doi: 10.1007/978-3-319-20270-9\_2.

## Fachkonferenzen

- [5] B. Wetzel, „Properties of delignified compacted wood“, Polytrib 2022, Stockholm, Schweden, 5. Dezember 2022
- [6] M. Gilberg, J.-K. Krüger und B. Wetzel, „Determination of Polymerization-Induced Volume Changes of UV-Curable Resins via TMOR“, Poly-Char 2022, 23. Mai 2022
- [7] A. Klingler; Q. He; L. Ye; U. Breuer; K. Friedrich und B. Wetzel, „Damage resistance of thin and tough carbon fibre reinforced epoxy“, 1<sup>st</sup> Virtual ESIS-TC4 Conference on Fracture of Polymers, Composites and Adhesives, 28.-29.09.2021
- [8] M. Gilberg, J.K. Krüger und B. Wetzel, „Investigation of shrinkage-optimized resin via TMOR“, *Virtual European Symposium of Photopolymer Sciences (vESPS)*, virtual conference, June 2021
- [9] X. Shen, E. Padenko, B. Wetzel und K. Friedrich, „Bioinspired graphene/liquid crystalline polymer nanocomposite coatings for tribological applications“, *22nd International Conference on Composite Melbourne*, 2019.
- [10] J. Krummenacker, J. Hausmann, L. Sorochynska, A. Klingler und B. Wetzel, „Development of a cyclic test method for ultra-fast rotating flywheels made of CFRP and improvement of their fatigue strength by matrix modifications“, *21st International Conference on Composite Materials Xi'an 2025th August*, 2017.
- [11] M. Kopietz, S. Grishchuk und B. Wetzel, „Innovative phosphate-free alternatives for silicate resins applied in sewer rehabilitation“, *32nd International Conference, Lyon*, 2016, doi: 10.1063/1.5016733.

- [12] F. Rieger *et al.*, „Induction welding of carbon fiber reinforced thermoset composites via thermoplastics: overview of experimental analysis of induction welded single-lap joints“, *ECCM 17 Munich*, 2016.
- [13] B. Wetzel, F. Oster und F. Hauptert, „Nanoparticle filled polymers: manufacturing, structure, properties“ in *SKZ-Fachtagung*, 2004.

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- [14] Y. Lin, R. He, Y. Xu, J. Zhang, B. Wetzel, und G. Zhang, „Significance of nickel particles on reducing friction and wear of polyimide subjected to harsh boundary lubrication conditions“, *Tribology International*, Nr. 178, Nov. 2022, doi: <https://doi.org/10.1016/j.triboint.2022.108063>
- [15] A. Klingler, Q. He, B. Wetzel, T. Allen, L. Ye, und U. Breuer, „Low velocity impact resistance of thin and toughened carbon fibre reinforced epoxy“, *Composites Science and Technology*, S. 109362, Feb. 2022, doi: [10.1016/j.compscitech.2022.109362](https://doi.org/10.1016/j.compscitech.2022.109362)
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- [17] A. Klingler, M. Gilberg, B. Wetzel und J.-K. Krüger, „Simultaneous access to different types of volume changes and the degree of cure during isothermal polymerization of polymer networks“, *Express Polym. Lett.*, Bd. 16, Nr. 11, S. 1193–1207, 2022, doi: [10.3144/expresspolymlett.2022.87](https://doi.org/10.3144/expresspolymlett.2022.87)
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