

Journal Publications

- [9] M. Haghi, M. Aßmus, K. Naumenko, and H. Altenbach. “Mechanical Models and Finite-Element Approaches for the Structural Analysis of Photovoltaic Composite Structures: A Comparative Study”. In: *Mechanics of Composite Materials* 54.4 (2018), pp. 415–430. DOI: 10.1007/s11029-018-9752-6.
- [8] J. Nordmann, M. Aßmus, and H. Altenbach. “Visualising Elastic Anisotropy: Theoretical Background and Computational Implementation”. In: *Continuum Mechanics and Thermodynamics* 30.4 (2018), pp. 689–708. DOI: 10.1007/s00161-018-0635-9.
- [7] M. Aßmus, K. Naumenko, and H. Altenbach. “Mechanical Behaviour of Photovoltaic Composite Structures: Influence of Geometric Dimensions and Material Properties on the Eigenfrequencies of Mechanical Vibrations”. In: *Composites Communications* 6.- (2017), pp. 59–62. DOI: 10.1016/j.coco.2017.10.003.
- [6] M. Aßmus, J. Eisenträger, and H. Altenbach. “Projector Representation of Isotropic Linear Elastic Material Laws for Directed Surfaces”. In: *Zeitschrift für Angewandte Mathematik und Mechanik* 97.12 (2017), pp. 1625–1634. DOI: 10.1002/zamm.201700122.
- [5] M. Aßmus, S. Bergmann, K. Naumenko, and H. Altenbach. “Mechanical Behaviour of Photovoltaic Composite Structures: A Parameter Study on the Influence of Geometric Dimensions and Material Properties under Static Loading”. In: *Composites Communications* 5.- (2017), pp. 23–26. DOI: 10.1016/j.coco.2017.06.003.
- [4] M. Aßmus, J. Nordmann, K. Naumenko, and H. Altenbach. “A homogeneous substitute material for the core layer of photovoltaic composite structures”. In: *Composites Part B: Engineering* 112.- (2017), pp. 353–372. DOI: 10.1016/j.compositesb.2016.12.042.
- [3] M. Aßmus, K. Naumenko, and H. Altenbach. “A multiscale projection approach for the coupled global-local structural analysis of photovoltaic modules”. In: *Composite Structures* 158.- (2016), pp. 340–358. DOI: 10.1016/j.compstruct.2016.09.036.
- [2] M. Aßmus and M. Köhl. “Experimental investigation of the mechanical behavior of photovoltaic modules at defined inflow conditions”. In: *Journal of Photonics for Energy* 2.1 (2012), pp. 1–11. DOI: 10.1117/1.JPE.2.022002.
- [1] M. Aßmus, S. Jack, K.-A. Weiß, and M. Köhl. “Measurement and simulation of vibrations of PV-modules induced by dynamic mechanical loads”. In: *Progress in Photovoltaics: Research and Applications* 19.6 (2011), pp. 688–694. DOI: 10.1002/pip.1087.

Conference Contributions

- [4] M. Aßmus, J. Eisenträger, and H. Altenbach. “On isotropic linear elastic material laws for directed planes”. In: *Proceedings of the 11th International Conference on Shell Structures: Theory and Applications (SSTA 2017)*. Gdańsk, Poland, 2017, pp. 57–60. ISBN: 978-1138050457. URL: <https://www.taylorfrancis.com/books/9781315166605/chapters/10.1201/9781315166605-7>.
- [3] W. Herrmann, N. Bogdanski, F. Reil, M. Köhl, K.-A. Weiß, M. Aßmus, and M. Heck. “PV module degradation caused by thermomechanical stress: real impacts of outdoor weathering versus accelerated testing in the laboratory”. In: *Proceedings of the International Society for Optical Engineering (Reliability of Photovoltaic Cells, Modules, Components, and Systems III)*. Vol. 7773. San Diego, USA, 2010, p. 01. DOI: 10.1117/12.859809.
- [2] M. Aßmus, S. Jack, M. Köhl, and K.-A. Weiß. “Dynamic Mechanical Loads on PV-Modules”. In: *Proceedings of the 24th European Photovoltaic Solar Energy Conference*. Hamburg, Germany, 2009, pp. 3395–3397. DOI: 10.4229/24thEUPVSEC2009-4AV.3.34.

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Book Chapters

- [1] M. Aßmus, S. Bergmann, J. Eisenträger, K. Naumenko, and H. Altenbach. “Consideration of Non-Uniform and Non-Orthogonal Mechanical Loads for Structural Analysis of Photovoltaic Composite Structures”. In: *Mechanics for Materials and Technologies*. Ed. by H. Altenbach, R. V. Goldstein, and E. Murashkin. Vol. 46. Advanced Structured Materials. Singapore: Springer, 2017, pp. 73–122. DOI: 10.1007/978-3-319-56050-2_4.

Edited Books

- [1] K. Naumenko and M. Aßmus, eds. *Advanced Methods of Continuum Mechanics for Materials and Structures*. Vol. 60. Advanced Structured Materials. Singapore: Springer, 2016. DOI: 10.1007/978-981-10-0959-4.

Books

- [1] M. Aßmus. *Structural Mechanics of Anti-Sandwiches. An Introduction*. SpringerBriefs in Continuum Mechanics. Cham: Springer, 2019. URL: <https://www.springer.com/de/book/9783030043537>.