

Peer-Reviewed Journal Publications

- [12] M. Aßmus, R. Glüge, and H. Altenbach. “On the Analytical Estimation for Isotropic Approximation of Elastic Properties applied to Polycrystalline Cubic Silicon used at Solar Cells”. In: *Technische Mechanik* 40.2 (2020), pp. 1–14. DOI: 10.24352/UB.OVGU-2020-020.
- [11] Z. Javanbakhht, M. Aßmus, K. Naumenko, A. Öchsner, and H. Altenbach. “On Thermal Strains and Residual Stresses in the Linear Theory of Anti-Sandwiches”. In: *Zeitschrift für Angewandte Mathematik und Mechanik* 99.8 (2019), e201900062. DOI: 10.1002/zamm.201900062.
- [10] M. Aßmus, K. Naumenko, A. Öchsner, V. A. Eremeyev, and H. Altenbach. “A generalized framework towards structural mechanics of three-layered composite structures”. In: *Technische Mechanik* 39.2 (2019), pp. 202–219. DOI: 10.24352/UB.OVGU-2019-019.
- [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.
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- [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.

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- [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. DOI: 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.
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- [4] M. Aßmus and H. Altenbach. “A mathematically consistent vector-matrix representation of generalized Hooke’s law for shear-rigid plates”. In: *Nonlinear Wave Dynamics of Materials and Structures*. Ed. by H. Altenbach, V. A. Eremeyev, I. Pavlov, and A. Porubov. Vol. 122. Advanced Structured Materials. Singapore: Springer, 2019, pp. 1–11. DOI: 10.1007/978-3-030-38708-2_3.
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- [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.

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- [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.

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