

ALAN ZEHNDER – COMPLETE PUBLICATIONS LIST

Updated 1/5/2024

BOOKS:

Alan T. Zehnder, **Fracture Mechanics**, Springer, (2012), DOI: 10.1007/978-94-007-2595-9

Beese, Allison M., Zehnder, Alan T., Xia, Shuman (Eds.), **Fracture, Fatigue, Failure and Damage Evolution, Volume 8, Proceedings of the 2015 Annual Conference on Experimental and Applied Mechanics**, Springer (2016).

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Zhu, Y., and Zehnder, A.T., **Experimental and Applied Mechanics, Volume 4, Proceedings of the 2016 Annual Conference on Experimental and Applied Mechanics**, Springer (2017).

BOOK CHAPTERS:

1. Alan T. Zehnder, “Griffith fracture theory,” invited article for **Encyclopedia of Tribology**, Q.J. Wang and Y.W. Chung, (eds.), Springer (2013), ISBN 978-0-387-92898-2.
2. Alan T. Zehnder, “Modes of fracture,” invited article for **Encyclopedia of Tribology**, Q.J. Wang and Y.W. Chung, (eds.), Springer (2013). ISBN 978-0-387-92898-2.
3. Alan T. Zehnder, “Stress intensity factors,” invited article for **Encyclopedia of Tribology**, Q.J. Wang and Y.W. Chung, (eds.), Springer (2013). ISBN 978-0-387-92898-2.
4. Alan T. Zehnder, “Static fracture response of materials,” invited chapter for **Encyclopedia of Aerospace Engineering**, 1851-1858, Richard Blockley and Wei Shyy (eds.), John Wiley & Sons (2010).

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8. A. Bhaskar, M. Walth, R. H. Rand and A. T. Zehnder, "Synchronization in Pairs of Opto-Thermally Driven Mechanically Coupled Micro-Oscillators," **Journal of Microelectromechanical Systems**, 32(1), 136-142, <https://doi.org/10.1109/JMEMS.2022.3229957> (2023).
9. Jikun Wang, Kunpeng Cui, Bangguo Zhu, Jian Ping Gong, Chung-Yuen Hui, Alan T. Zehnder, "Load transfer between permanent and dynamic networks due to stress gradients in nonlinear viscoelastic hydrogels," **Extreme Mechanics Letters**, 58, 101928, <https://doi.org/10.1016/j.eml.2022.101928> (2023).
10. A. Bhaskar, M. Walth, R. H. Rand and A. T. Zehnder, "Bistability in Coupled Opto-Thermal Micro-Oscillators," **Journal of Microelectromechanical Systems**, <https://doi.org/10.1109/JMEMS.2022.3169430> (2022)
11. Chung-Yuen Hui, Fan Cui, Alan Zehnder and Franck J. Vernerey, "Physically motivated models of polymer networks with dynamic cross-links: comparative study and future outlook," **Proc. R. Soc. A**.4772021060820210608, <http://doi.org/10.1098/rspa.2021.0608> (2021)
12. Fan Cui, Jikun Wang, Alan Zehnder, Chung-Yuen Hui, " Effect of Drying on the Viscoelastic Response of a Dual-crosslinked PVA Hydrogel," **Mechanics of Materials**, 160, September 2021, 103984 <https://doi.org/10.1016/j.mechmat.2021.103984> (2021).
13. Jikun Wang, Tianjiao Lia, Fan Cui, Chung-Yuen Hui, Jingjie Yeo, Alan T. Zehnder, " Metamodeling of Constitutive Model Using Gaussian Process Machine Learning," **Journal of the Mechanics and Physics of Solids**, 154, 104532, <https://doi.org/10.1016/j.jmps.2021.104532> (2021).
14. Sairam Venkata Pamulaparathi, Kunpeng Cui, Jingyi Guo, Alan Zehnder, Jian Ping Gong and Chung-Yuen Hui, " Constitutive modeling of strain-dependent bond breaking and healing kinetics of chemical Polyampholyte (PA) gel," **Soft Matter**, 17, 4161-4169 (2021). <https://doi.org/10.1039/D1SM00110H>
15. Sairam Venkata Pamulaparathi, Kunpeng Cui, Jingyi Guo, Alan Zehnder, Jian Ping Gong and Chung-Yuen Hui, "Constitutive modeling of bond breaking and healing kinetics of physical polyampholyte (PA) gel," **Extreme Mechanics Letters**, 43, 101184, (2021). <https://doi.org/10.1016/j.eml.2021.101184>
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