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## PUBLICATIONS

KEY: Postdoctoral scholars Graduate students Undergraduate students

### REFEREED RESEARCH PAPERS

1. H. Liu, S. Laflamme, C. Morgan, M. Nelson, and **SA. Bentil** (Oct. 2022). Real-Time Nondestructive Evaluation of Additive Manufacturing Using a Laser Vibrometer and Shock Tube. *Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems* **6**(011005). doi: [10.1115/1.4055383](https://doi.org/10.1115/1.4055383).
2. **SA. Bentil**, WJ. Jackson, C. Williams, and TC. Miller (2022). Viscoelastic Properties of Inert Solid Rocket Propellants Exposed to a Shock Wave. *Propellants, Explosives, Pyrotechnics* **47**(1) (Special Issue: Rocket Propellants), e202100055. doi: [10.1002/prep.202100055](https://doi.org/10.1002/prep.202100055).
3. L. Zhang, WJ. Jackson, and **SA. Bentil** (Mar. 2022). Numerical and Experimental Investigation of an Ultrasoft Elastomer Under Shock Wave Loading. *Journal of Dynamic Behavior of Materials* **8**(1), 137–154. doi: [10.1007/s40870-021-00324-5](https://doi.org/10.1007/s40870-021-00324-5).
4. H. Liu, S. Laflamme, EM. Zellner, A. Aertsens, **SA. Bentil**, IV. Rivero, and TW. Secord (Oct. 2021). Soft Elastomeric Capacitor for Strain and Stress Monitoring on Sutured Skin Tissues. *ACS Sensors* **6**(10), 3706–3714. doi: [10.1021/acssensors.1c01477](https://doi.org/10.1021/acssensors.1c01477).
5. JL. Marsh and **SA. Bentil** (2021). Cerebrospinal Fluid Cavitation as a Mechanism of Blast-Induced Traumatic Brain Injury: A Review of Current Debates, Methods, and Findings. English. *Frontiers in Neurology* **12**. doi: [10.3389/fneur.2021.626393](https://doi.org/10.3389/fneur.2021.626393).
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7. OF. Afuwape, J. Boldrey, P. Rastogi, **SA. Bentil**, and D. Jiles (2021). Influence of Brain-Scalp Distance on Focality of the Quadruple Butterfly Coil for Transcranial Magnetic Stimulation. *IEEE Transactions on Magnetics*, 1–1. doi: [10.1109/TMAG.2020.3017565](https://doi.org/10.1109/TMAG.2020.3017565).
8. Z. Xu, L. Zhang, **SA. Bentil**, and KM. Bratlie (Oct. 2021). Gellan Gum-Gelatin Viscoelastic Hydrogels as Scaffolds to Promote Fibroblast Differentiation. *Materials Science and Engineering: C* **129**, 112370. doi: [10.1016/j.msec.2021.112370](https://doi.org/10.1016/j.msec.2021.112370).
9. H. Liu, J. Yan, M. Kollosche, **SA. Bentil**, and S. Laflamme (Sept. 2020). Surface Textures for Stretchable Capacitive Strain Sensors. *Smart Materials and Structures* **29**(10), 105037. doi: [10.1088/1361-665X/aba63c](https://doi.org/10.1088/1361-665X/aba63c).
10. H. Liu, M. Kollosche, J. Yan, EM. Zellner, **SA. Bentil**, IV. Rivero, C. Wiersema, and S. Laflamme (Jan. 2020). Numerical Investigation of Auxetic Textured Soft Strain Gauge for Monitoring Animal Skin. *Sensors* **20**(15) (Special Issue: Flexible Sensors for Structural Health Monitoring), 4185. doi: [10.3390/s20154185](https://doi.org/10.3390/s20154185).
11. JS. Grewal et al. (Dec. 2020). Brain Gyrification in Wild and Domestic Canids: Has Domestication Changed the Gyrification Index in Domestic Dogs? *The Journal of Comparative Neurology* **528**(18), 3209–3228. doi: [10.1002/cne.24972](https://doi.org/10.1002/cne.24972).
12. M. Na, TJ. Beavers, A. Chandra, and **SA. Bentil** (2019). Simulation of Brain Response to Non-Contact Impacts Using Coupled Eulerian-Lagrangian Method. *ASME Journal of Biomechanical Engineering*, BIO-19-1281. doi: [10.1115/1.4045047](https://doi.org/10.1115/1.4045047).

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17. **SA. Bentil** and RB. Dupaix (2018). Simulations of hydrogel-coated neural microelectrodes to assess biocompatibility improvement using strain as a metric for micromotion. en. *Biomedical Physics & Engineering Express* **4**(3), 035036. doi: [10.1088/2057-1976/aab990](https://doi.org/10.1088/2057-1976/aab990).
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19. **SA. Bentil** and RB. Dupaix (2014). Exploring the mechanical behavior of degrading swine neural tissue at low strain rates via the fractional Zener constitutive model. *Journal of the Mechanical Behavior of Biomedical Materials* **30**, 83–90. doi: [10.1016/j.jmbbm.2013.10.020](https://doi.org/10.1016/j.jmbbm.2013.10.020).
20. SS. Rao, **SA. Bentil**, J. DeJesus, J. Larison, A. Hissong, R. Dupaix, A. Sarkar, and JO. Winter (2012). Inherent interfacial mechanical gradients in 3D hydrogels influence tumor cell behaviors. *PLoS ONE* **7**(4), e35852. doi: [10.1371/journal.pone.0035852](https://doi.org/10.1371/journal.pone.0035852).
21. E. Kobrinsky, DE. Mager, **SA. Bentil**, SI. Murata, DR. Abernethy, and NM. Soldatov (2005). Identification of plasma membrane macro- and microdomains from wavelet analysis of FRET microscopy. *Biophysical Journal* **88**(5), 3625–3634. doi: [10.1529/biophysj.104.054056](https://doi.org/10.1529/biophysj.104.054056).
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