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Nota di contenuto	Chapter 1. Investigation of Deformation Mechanisms in Columnar Aluminum -- Chapter 2. Dynamic Shear Response of Soft Tissue Materials -- Chapter 3. Tensile Response of Ceramics at the Microscale -- Chapter 4. Development of Femtosecond Laser Based Microscale Fracture Methods -- Chapter 5. Programming Vanadium Dioxide based MEMS Mirror -- Chapter 6. Modelling & Simulation of Post Processed Foundry Fabricated Large, Out-of-Plane MEMS Energy Harvester -- Chapter 7. Measurement of the Visco-Elastic Properties of the Chinchilla Tympanic Membrane -- Chapter 8. Realization and Dynamic Studies of CNTs-PDMS Membranes for Biomimetic Flapping Wing Applications -- Chapter 9. Experimental and Theoretical Study on the Robustification of Acoustic Emission Inspection with Recurrent Neural

Networks -- Chapter 10. Modeling of Atomic Force Microscope Contact Experiments on Escherichia Coli Bacteria Cellular Systems -- Chapter 11. Selection of Shear Sample Test Geometry for Bulk Adhesive Characterization -- Chapter 12. A Design of Experiments Approach for Determining Sensitivities of Forming Limit Analyses to Experimental Parameters -- Chapter 13. Post Processed Foundry MEMS Actuators for Large Deflection Optical Scanning -- Chapter 14. Torsional Structures to Enable Large Angle Deflections -- Chapter 15. Mode I Delamination Behaviour of Fused Deposition Modelling Parts -- Chapter 16. Experimental Study of the Mechanics of Blast-induced Traumatic Brain Injury -- Chapter 17. A MEMS-scale Nonlinear Vibration Energy Harvester Based on Coupled Component Structures and Bi-stable States -- Chapter 18. Development of Biofilm-Surface Adhesion Technique via Laser-induced Stress Waves -- Chapter 19. Influence of Adhesion on the Mechanical Response of Granular Composites -- Chapter 20. High Rate Fracture of Human Skull -- Chapter 21. Assessment of Fluid Cavitation Threshold Using a Polymeric Split Hopkinson Bar-Confinement Chamber Apparatus -- Chapter 22. Contact Reliability of Pt- and TiN-coated Microswitches in Different Environments.

Sommario/riassunto

Mechanics of Biological Systems & Micro-and Nanomechanics, Volume 4 of the Proceedings of the 2018 SEM Annual Conference & Exposition on Experimental and Applied Mechanics, the fourth volume of eight from the Conference, brings together contributions to important areas of research and engineering. The collection presents early findings and case studies on a wide range of topics, including: Cell Mechanics & Traumatic Brain Injury Micromechanical Testing Adhesion and Fracture MEMS Devices and Technology Nano-scale Deformation Mechanisms 1D & 2D Materials Tribology & Wear Research and Applications in Progress.