Record Nr. UNINA9910299849603321 Mechanics of Biological Systems and Materials, Volume 7: Proceedings **Titolo** of the 2014 Annual Conference on Experimental and Applied Mechanics // edited by François Barthelat, Chad Korach, Pablo Zavattieri, Barton C. Prorok, K. Jane Grande-Allen Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2015 **ISBN** 3-319-06974-8 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (88 p.) Collana Conference Proceedings of the Society for Experimental Mechanics Series, , 2191-5644 571.4/3 Disciplina 620.112 Soggetti Biomedical engineering **Biomaterials** Mechanics Mechanics, Applied Biomedical Engineering and Bioengineering Theoretical and Applied Mechanics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapter. Nota di contenuto In Vitro Complex Shear Modulus of Bovine Muscle Tissue -- A Camerabased Experimental Method for Mechanical Test on Patellar Tendons --Thin-shell Behavior of Mammalian Tympanic Membrane Studied by Digital Holography -- Controlling Abalone Shell Architecture With Temperature -- The Modeling of Time Dependent Mechanical Properties of Cervine Enamel -- Development of Tissue Surrogates for Photoelastic Strain Analysis of Needle Insertion -- Polymer Gels for Defense Applications -- Development of a Microloading Platform for in Vitro Mechanotransduction Studies -- Development of a Multi-Strain Profile for Cellular Mechanotransduction Testing -- Pull-off Adhesion Measurements on C. Elegans -- A Fractional Order Model for Local Electric Fields in Tissues -- Simulation of Atherosclerotic Plaque Delamination Using the Cohesive Zone Model.

Sommario/riassunto

Mechanics of Biological Systems and Materials, Volume 7: Proceedings of the 2014 Annual Conference on Experimental and Applied Mechanics, the seventh volume of eight from the Conference, brings together contributions to this important area of research and engineering. The collection presents early findings and case studies on a wide range of areas, including: Soft Tissues Mechanics Natural Materials & Bio-Inspiration Tissue Engineering Cells Mechanics.