

Contents

Mixture Theory for Modeling Biological Tissues: Illustrations from Articular Cartilage	1
Gerard A. Ateshian	
A Bio-chemo-mechanical Model for Cell Contractility, Adhesion, Signaling, and Stress-Fiber Remodeling	53
Robert M. McMeeking and Vikram S. Deshpande	
Nonlinear Continuum Mechanics and Modeling the Elasticity of Soft Biological Tissues with a Focus on Artery Walls	83
Ray W. Ogden	
Microstructure and Mechanics of Human Aortas in Health and Disease	157
Gerhard A. Holzapfel	
Arterial and Atherosclerotic Plaque Biomechanics with Application to Stent Angioplasty Modeling	193
Brian L. O'Reilly, Claire Conway, J. Patrick McGarry and Peter E. McHugh	
Biomechanics of Myocardial Ischemia and Infarction	233
Colleen M. Witzenburg and Jeffrey W. Holmes	
Fiber-Network Modeling in Biomechanics: Theoretical and Analytical Approaches	271
Rohit Y. Dhume and Victor H. Barocas	
Author Index	309
Subject Index	311



<http://www.springer.com/978-3-319-41473-7>

Biomechanics: Trends in Modeling and Simulation

Holzapfel, G.A.; Ogden, R.W. (Eds.)

2017, IX, 316 p. 129 illus., 63 illus. in color., Hardcover

ISBN: 978-3-319-41473-7