

Brief Contents

Volume 1	
Adhesives.	.1
Allografts.	.8
Alumina.	.17
Angiogenesis Inhibitors.	.26
Animal Models for Bone Tissue Engineering	.33
Animal Surrogate Systems for Toxicity Testing	.51
Antimicrobial/Antibiotic (Infection Resistance) Materials.	.61
Antimineralization Treatment	.71
Articular Cartilage Biomechanics.	.85
Artificial Heart Fluid Dynamics: Positive Displacement Pumps.	.95
Artificial Muscles.	.108
Artificial Neural Networks: An Overview	.119
Bioactive Glass.	.133
Bioactive Materials and Scaffolds for Tissue Engineering.	.142
Bioadhesion.	.152
Biocatalysis.	.162
Biocompatibility Testing.	.169
Biocomposites.	.179
Biodegradable Polymers: An Overview	.195
Biofilms.	.207
Biofunctional Polymers.	.218
Biologic and Synthetic Apatites.	.225
Biological Adhesives from Nature.	.236
Biological Effects of Radiofrequency Electromagnetic Field.	.254
Biomaterials Immune Response.	.262
Biomaterials: Protein-Surface Interactions	.270
Biomedical Ethics.	.285
Biomimetic Materials.	.294
Biopotential Amplifiers.	.301
Bioreactors.	.310
Biorubber/Poly(Glycerol Sebacate).	.327
Biosensors.	.335
Biosynthesis and Applications of Alginates	.350
Biphasic Calcium Phosphate (BCP) Bioceramics: Chemical, Physical, and Biological Properties.	.359
Blood-Material Interactions.	.367
Blood Purification.	.378

Blood Vessel Mechanics

Bone Cement	.403
Bone Fracture Fixation.	.413
Bone-Implant Interface.	.423
Bone plates and Screws, Bioabsorbable	.432
Bone Remodeling.	.439
Bum Dressing	.448
Calcium Phosphate Ceramics: New Generation Produced in Japan.	.461
Cardiac Assist Devices.	.470
Cardiac Bioelectricity.	.480
Cardiac Catheters.	.491
Cardiac Elastography, Full-Field Development	.506
Cardiac Output, Basic Measurement Principles.	.514
Cardiac Pacemaker.	.532
Cardiac Patch Engineering.	.542
Cartilage Regeneration.	.552
Cell Culture Assays.	.561
Cell-Material Interaction.	.568
Centrifugal Blood Pumps.	.574
Ceramics.	.585
Ceramics in Dentistry.	.593
Chitosan.	.604
Chondroitin Sulfates.	.618
Collagen.	.628
Collagen Fixation.	.639
Collagen Processing.	.652
Composites.	.659
Compression of Digital Biomedical Signals	.677
Computer-Assisted Surgery.	.687
Conductive Polymers.	.695
Confocal Microscopy.	.705
Contact Lenses: Silicone Hydrogels.	.715
Control of Movement	.729
Controlled Release.	.739
Corneal Implants.	.747
Corrosion.	.754
Cryopreservation of Living Cells.	.762
Defibrillators.	.772
Volume	.2
Degradable Polymer Composites.	.779
Dendrimers for Drug Delivery.	.789
Dental Biomechanics.	.799

Dental Implants.	808	Glucose Sensors.	1174
Diamond and Diamond-Like Carbons.	822	Glues.	1185
Dielectric Properties of Tissues.	832	Glycosaminoglycans and Proteoglycans	1195
Digital Biomedical Signal Acquisition and Processing: Basic Topics.	843	Gradient Surfaces: Preparation, Characterization, and Interactions with Biological Species.	1210
Digital Biomedical Signal Processing: Advanced Topics.	854	Hard Tissue: Biomaterial Interactions.	1229
Distal Protection Devices.	870	Hard Tissue Elastic Properties.	1236
Drug Delivery, Controlled.	880	Healing of Bone and Connective Tissues	1249
Elastin.	891	Hearing Aids	1263
Elastomers, Biodegradable.	897	Hearing Mechanisms.	1271
Electric Cell-Substrate Impedance Sensing.	908	Heart Biomechanics.	1280
Electrical Impedance Imaging.	915	Heart Valve, Bioprosthetic.	1291
Electroactive Polymeric Materials.	926	Heart Valve Failure, Bioprosthetic.	1306
Electrocardiography.	936	Heart Valve Mechanics.	1317
Electrogastrography.	947	Heart Valves, Mechanical.	1329
Electromyography.	956	Hematopoietic Stem Cells and Assays	1338
Electron Microscopy.	968	Hemocompatible Materials	1345
Electrospinning.	978	Hemodynamics, Macrocirculatory.	1356
Endoscopy.	986	Heparin-Binding to Improve Biocompatibility	1368
Ergonomics.	999	Hip Biomechanics.	1377
Excitable Tissue, Electrical Stimulation Of . . .	1009	Hip Joint: Overuse Injuries.	1393
Extracellular Matrix Scaffolds.	1021	Histogenesis.	1403
Eye Tracking: Characteristics and Methods.	1028	Host Reactions.	1411
Eye Tracking: Research Areas and Applications.	1033	Hyaluronan.	1421
Fabrics.	1043	Hybrid Vascular Prostheses.	1432
Fiber Optic Biosensors.	1062	Hydrogels.	1439
Fibrin.	1072	Hydroxyapatite.	1451
Fibrin Sealants.	1080	Hydroxyapatite Coatings.	1464
Finite Element Analysis.	1091	Implant, Total Hip.	1470
Flow Cytometry.	1100	Implanted Medical Devices, Power Sources For.	1484
Foreign Body Response.	1111	Infection of Medical Devices.	1497
Functional MRI: Applications.	1119	Inner Ear Implants.	1507
Gait Analysis.	1129	Insulin Delivery.	1514
Gene-Activated Matrix.	1142	Integrins.	1524
Gene Therapy.	1150	Intellectual Property Management	1540
Glucose-Responsive Hydrogels.	1163	Interpenetrating Polymeric Networks.	1549