Michael Buschmann

List of Publications by Year
in descending order

163	13,361	19636 61	22808 112
papers	citations	h-index	g-index

166	166	166	12329
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quality of Cartilage Repair from Marrow Stimulation Correlates with Cell Number, Clonogenic, Chondrogenic, and Matrix Production Potential of Underlying Bone Marrow Stromal Cells in a Rabbit Model. Cartilage, 2021, 12, 237-250.	1.4	9
2	Ionization and structural properties of mRNA lipid nanoparticles influence expression in intramuscular and intravascular administration. Communications Biology, 2021, 4, 956.	2.0	151
3	Nanomaterial Delivery Systems for mRNA Vaccines. Vaccines, 2021, 9, 65.	2.1	310
4	Efficiency of Chitosan/Hyaluronan-Based mRNA Delivery Systems InÂVitro: Influence of Composition and Structure. Journal of Pharmaceutical Sciences, 2020, 109, 1581-1593.	1.6	25
5	Non-invasive Electroarthrography Measures Load-Induced Cartilage Streaming Potentials via Electrodes Placed on Skin Surrounding an Articular Joint. Cartilage, 2020, , 194760352092858.	1.4	3
6	Guided bone marrow stimulation for articular cartilage repair through a freeze-dried chitosan microparticle approach. Materialia, 2020, 9, 100609.	1.3	5
7	Multiple platelet-rich plasma preparations can solubilize freeze-dried chitosan formulations to form injectable implants for orthopedic indications. Bio-Medical Materials and Engineering, 2019, 30, 349-364.	0.4	2
8	Injectable freezeâ€dried chitosanâ€plateletâ€richâ€plasma implants improve marrowâ€stimulated cartilage repair in a chronicâ€defect rabbit model. Journal of Tissue Engineering and Regenerative Medicine, 2019, 13, 599-611.	1.3	10
9	Freeze-dried chitosan-platelet-rich plasma implants improve supraspinatus tendon attachment in a transosseous rotator cuff repair model in the rabbit. Journal of Biomaterials Applications, 2019, 33, 792-807.	1.2	10
10	3D morphometric analysis of calcified cartilage properties using micro-computed tomography. Osteoarthritis and Cartilage, 2019, 27, 172-180.	0.6	19
11	Augmentation Techniques for Meniscus Repair. Journal of Knee Surgery, 2018, 31, 099-116.	0.9	37
12	Freeze-Dried Chitosan-Platelet-Rich Plasma Implants for Rotator Cuff Tear Repair: Pilot Ovine Studies. ACS Biomaterials Science and Engineering, 2018, 4, 3737-3746.	2.6	10
13	Lyophilisation and concentration of chitosan/siRNA polyplexes: Influence of buffer composition, oligonucleotide sequence, and hyaluronic acid coating. Journal of Colloid and Interface Science, 2018, 512, 335-345.	5.0	34
14	Electromechanical properties of human osteoarthritic and asymptomatic articular cartilage are sensitive and early detectors of degeneration. Osteoarthritis and Cartilage, 2018, 26, 405-413.	0.6	11
15	siRNA Delivery with Chitosan: Influence of Chitosan Molecular Weight, Degree of Deacetylation, and Amine to Phosphate Ratio on in Vitro Silencing Efficiency, Hemocompatibility, Biodistribution, and in Vivo Efficacy. Biomacromolecules, 2018, 19, 112-131.	2.6	91
16	Chitosan inhibits platelet-mediated clot retraction, increases platelet-derived growth factor release, and increases residence time and bioactivity of platelet-rich plasmain vivo. Biomedical Materials (Bristol), 2018, 13, 015005.	1.7	17
17	Bone Marrow Progenitor Cells Isolated from Young Rabbit Trochlea Are More Numerous and Exhibit Greater Clonogenic, Chondrogenic, and Osteogenic Potential than Cells Isolated from Condyles. Cartilage, 2018, 9, 378-390.	1.4	6
18	InÂvitro method for 3D morphometry of human articular cartilage chondrons based on micro-computed tomography. Osteoarthritis and Cartilage, 2018, 26, 1118-1126.	0.6	15

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19	Electromechanical probe and automated indentation maps are sensitive techniques in assessing early degenerated human articular cartilage. Journal of Orthopaedic Research, 2017, 35, 858-867.	1.2	35
20	Automated in-line mixing system for large scale production of chitosan-based polyplexes. Journal of Colloid and Interface Science, 2017, 500, 253-263.	5.0	15
21	Electrical potentials measured on the surface of the knee reflect the changes of the contact force in the knee joint produced by postural sway. Gait and Posture, 2017, 52, 159-164.	0.6	2
22	Regioselective chitosan end-group activation: the triskelion approach. RSC Advances, 2017, 7, 18628-18638.	1.7	4
23	Stability and binding affinity of DNA/chitosan complexes by polyanion competition. Carbohydrate Polymers, 2017, 176, 167-176.	5.1	27
24	Development of an Electromechanical Grade to Assess Human Knee Articular Cartilage Quality. Annals of Biomedical Engineering, 2017, 45, 2410-2421.	1.3	11
25	Bilayer Implants. Cartilage, 2016, 7, 346-360.	1.4	15
26	Decrease of the electrical potentials measured on the surface of the knee and produced by cartilage compression during successive loading cycles. Journal of Biomechanics, 2016, 49, 3587-3591.	0.9	5
27	Rotator cuff repair: a review of surgical techniques, animal models, and new technologies under development. Journal of Shoulder and Elbow Surgery, 2016, 25, 2078-2085.	1.2	123
28	Structure Dependence of Lysosomal Transit of Chitosan-Based Polyplexes for Gene Delivery. Molecular Biotechnology, 2016, 58, 648-656.	1.3	8
29	Preparation of Concentrated Chitosan/DNA Nanoparticle Formulations by Lyophilization for Gene Delivery at Clinically Relevant Dosages. Journal of Pharmaceutical Sciences, 2016, 105, 88-96.	1.6	27
30	Mechanical loading of knee articular cartilage induced by muscle contraction can be assessed by measuring electrical potentials at the surface of the knee. Journal of Biomechanics, 2016, 49, 338-343.	0.9	3
31	Osteochondral Biopsy Analysis Demonstrates That BST-CarGel Treatment Improves Structural and Cellular Characteristics of Cartilage Repair Tissue Compared With Microfracture. Cartilage, 2016, 7, 16-28.	1.4	49
32	Regioselective thioacetylation of chitosan end-groups for nanoparticle gene delivery systems. Chemical Science, 2015, 6, 4650-4664.	3.7	13
33	Chondroinduction Is the Main Cartilage Repair Response to Microfracture and Microfracture With BST-CarGel. American Journal of Sports Medicine, 2015, 43, 2469-2480.	1.9	28
34	Extracellular matrix mineralization in murine MC3T3-E1 osteoblast cultures: An ultrastructural, compositional and comparative analysis with mouse bone. Bone, 2015, 71, 244-256.	1.4	86
35	Interspecies comparison of subchondral bone properties important for cartilage repair. Journal of Orthopaedic Research, 2015, 33, 63-70.	1.2	46
36	Effect of Corneal Hydration on the Quality of the Femtosecond Laser Anterior Lamellar Cut. PLoS ONE, 2014, 9, e98852.	1.1	3

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37	The Forward Problem of Electroarthrography: Modeling Load-Induced Electrical Potentials at the Surface of the Knee. IEEE Transactions on Biomedical Engineering, 2014, 61, 2020-2027.	2.5	6
38	Non-destructive electromechanical assessment (Arthro-BST) of human articular cartilage correlates with histological scores and biomechanical properties. Osteoarthritis and Cartilage, 2014, 22, 1926-1935.	0.6	35
39	Combined Analysis of Polycation/ODN Polyplexes by Analytical Ultracentrifugation and Dynamic Light Scattering Reveals their Size, Refractive Index Increment, Stoichiometry, Porosity, and Molecular Weight. Biomacromolecules, 2014, 15, 940-947.	2.6	21
40	Chitosanâ€“glycerol-phosphate (GP) gels release freely diffusible GP and possess titratable fixed charge. Carbohydrate Polymers, 2013, 98, 813-819.	5.1	13
41	Chitosans for delivery of nucleic acids. Advanced Drug Delivery Reviews, 2013, 65, 1234-1270.	6.6	185
42	Bone marrow stimulation induces greater chondrogenesis in trochlear vs condylar cartilage defects in skeletally mature rabbits. Osteoarthritis and Cartilage, 2013, 21, 999-1007.	0.6	25
43	Electroarthrography: a novel method to assess articular cartilage and diagnose osteoarthritis by non-invasive measurement of load-induced electrical potentials at the surface of the knee. Osteoarthritis and Cartilage, 2013, 21, 1731-1737.	0.6	14
44	Translating the Genomics Revolution: The Need for an International Gene Therapy Consortium for Monogenic Diseases. Molecular Therapy, 2013, 21, 266-268.	3.7	12
45	Ionization Behavior of Chitosan and Chitosanâ€“DNA Polyplexes Indicate That Chitosan Has a Similar Capability to Induce a Proton-Sponge Effect as PEI. Biomacromolecules, 2013, 14, 1732-1740.	2.6	149
46	Bone marrow stimulation of the medial femoral condyle produces inferior cartilage and bone repair compared to the trochlea in a rabbit surgical model. Journal of Orthopaedic Research, 2013, 31, 1757-1764.	1.2	9
47	Partial Meniscectomy Changes Fluid Pressurization in Articular Cartilage in Human Knees. Journal of Biomechanical Engineering, 2012, 134, 021001.	0.6	42
48	Microdrilled Cartilage Defects Treated with Thrombin-Solidified Chitosan/Blood Implant Regenerate a More Hyaline, Stable, and Structurally Integrated Osteochondral Unit Compared to Drilled Controls. Tissue Engineering - Part A, 2012, 18, 508-519.	1.6	36
49	Electro-manipulation of biological cells in microdevices. IEEE Transactions on Dielectrics and Electrical Insulation, 2012, 19, 1261-1268.	1.8	10
50	Electromechanical deformation of mammalian cells in suspension depends on their cortical actin thicknesses. Journal of Biomechanics, 2012, 45, 2797-2803.	0.9	26
51	Low molecular weight chitosan nanoparticulate system at low N:P ratio for nontoxic polynucleotide delivery. International Journal of Nanomedicine, 2012, 7, 1399.	3.3	49
52	Mesenchymal stem cell transplantation to promote bone healing. Journal of Orthopaedic Research, 2012, 30, 1183-1189.	1.2	35
53	Kinetics and efficiency of chitosan reacetylation. Carbohydrate Polymers, 2012, 87, 1192-1198.	5.1	40
54	Chitosan-based therapeutic nanoparticles for combination gene therapy and gene silencing of in vitro cell lines relevant to type 2 diabetes. European Journal of Pharmaceutical Sciences, 2012, 45, 138-149.	1.9	64

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55	CD109â€mediated degradation of TGFâ€Î²2 receptors and inhibition of TGFâ€Î²2 responses involve regulation of SMAD7 and Smurf2 localization and function. Journal of Cellular Biochemistry, 2012, 113, 238-246.	1.2	72
56	Adva-27a, a novel podophyllotoxin derivative found to be effective against multidrug resistant human cancer cells. Anticancer Research, 2012, 32, 4423-32.	0.5	10
57	Electro-mechanical manipulation of mammalian cells in suspension. , 2011, , .		0
58	Preclinical Studies for Cartilage Repair. Cartilage, 2011, 2, 137-152.	1.4	110
59	Paper # 149: An International Randomized Clinical Trial Evaluating BST-CarGel: A New Gel Implant for Cartilage Repair. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2011, 27, e168.	1.3	1
60	Effective and safe gene-based delivery of GLP-1 using chitosan/plasmid-DNA therapeutic nanocomplexes in an animal model of type 2 diabetes. Gene Therapy, 2011, 18, 807-816.	2.3	40
61	Creep behavior of the intact and meniscectomy knee joints. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 1351-1358.	1.5	60
62	A polarized light microscopy method for accurate and reliable grading of collagen organization in cartilage repair. Osteoarthritis and Cartilage, 2011, 19, 126-135.	0.6	64
63	Temporal and spatial modulation of chondrogenic foci in subchondral microdrill holes by chitosan-glycerol phosphate/blood implants. Osteoarthritis and Cartilage, 2011, 19, 136-144.	0.6	43
64	Structural characteristics of the collagen network in human normal, degraded and repair articular cartilages observed in polarized light and scanning electron microscopies. Osteoarthritis and Cartilage, 2011, 19, 1458-1468.	0.6	76
65	The TGF-Î² co-receptor, CD109, promotes internalization and degradation of TGF-Î² receptors. Biochimica Et Biophysica Acta - Molecular Cell Research, 2011, 1813, 742-753.	1.9	115
66	Excess polycation mediates efficient chitosan-based gene transfer by promoting lysosomal release of the polyplexes. Biomaterials, 2011, 32, 4639-4646.	5.7	76
67	Depth of subchondral perforation influences the outcome of bone marrow stimulation cartilage repair. Journal of Orthopaedic Research, 2011, 29, 1178-1184.	1.2	136
68	International Cartilage Repair Society (ICRS) Recommended Guidelines for Histological Endpoints for Cartilage Repair Studies in Animal Models and Clinical Trials. Cartilage, 2011, 2, 153-172.	1.4	130
69	Electric-field-based methods for the manipulation and modification of biological cells in suspension. , 2011, , .		1
70	Introduction to the International Cartilage Repair Society Recommendation Papers. Cartilage, 2011, 2, 99-99.	1.4	3
71	Streaming Potential-Based Arthroscopic Device is Sensitive to Cartilage Changes Immediately Post-Impact in an Equine Cartilage Injury Model. Journal of Biomechanical Engineering, 2011, 133, 061005.	0.6	28
72	Standardized Three-Dimensional Volumes of Interest with Adapted Surfaces for More Precise Subchondral Bone Analyses by Micro-Computed Tomography. Tissue Engineering - Part C: Methods, 2011, 17, 475-484.	1.1	19

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73	Characterization of Subchondral Bone Repair for Marrow-Stimulated Chondral Defects and Its Relationship to Articular Cartilage Resurfacing. American Journal of Sports Medicine, 2011, 39, 1731-1741.	1.9	107
74	Chitosan modified with gadolinium diethylenetriaminepentaacetic acid for magnetic resonance imaging of DNA/chitosan nanoparticles. Carbohydrate Polymers, 2010, 80, 1137-1146.	5.1	43
75	Enhanced Gene Delivery Mediated by Low Molecular Weight Chitosan/DNA Complexes: Effect of pH and Serum. Molecular Biotechnology, 2010, 46, 182-196.	1.3	107
76	Human corneal epithelial cell response to epidermal growth factor tethered via coiled-coil interactions. Biomaterials, 2010, 31, 7021-7031.	5.7	47
77	Chitosanase-based method for RNA isolation from cells transfected with chitosan/siRNA nanocomplexes for real-time RT-PCR in gene silencing. International Journal of Nanomedicine, 2010, 5, 473.	3.3	21
78	Electro-deformation of individual mammalian cells in suspension. , 2010, , .		3
79	Mechanical properties of mammalian cells in suspension measured by electro-deformation. Journal of Micromechanics and Microengineering, 2010, 20, 065007.	1.5	66
80	Young Adult Chondrocytes Proliferate Rapidly and Produce a Cartilaginous Tissue at the Gel-Media Interface in Agarose Cultures. Connective Tissue Research, 2010, 51, 216-223.	1.1	10
81	Effects of Refrigeration and Freezing on the Electromechanical and Biomechanical Properties of Articular Cartilage. Journal of Biomechanical Engineering, 2010, 132, 064502.	0.6	82
82	Intracellular Trafficking and Decondensation Kinetics of Chitosanâ€“pDNA Polyplexes. Molecular Therapy, 2010, 18, 1787-1795.	3.7	93
83	Complete Physicochemical Characterization of DNA/Chitosan Complexes by Multiple Detection Using Asymmetrical Flow Field-Flow Fractionation. Analytical Chemistry, 2010, 82, 9636-9643.	3.2	28
84	One-Step Analysis of DNA/Chitosan Complexes by Field-Flow Fractionation Reveals Particle Size and Free Chitosan Content. Biomacromolecules, 2010, 11, 549-554.	2.6	49
85	Perturbation of adhesion molecule-mediated chondrocyte-matrix interactions by 4-hydroxynonenal binding: implication in osteoarthritis pathogenesis. Arthritis Research and Therapy, 2010, 12, R201.	1.6	32
86	Chondrocytes Cultured in Stirred Suspension with Serum-Free Medium Containing Pluronic-68 Aggregate and Proliferate While Maintaining Their Differentiated Phenotype. Tissue Engineering - Part A, 2009, 15, 2237-2248.	1.6	25
87	Meniscus structure in human, sheep, and rabbit for animal models of meniscus repair. Journal of Orthopaedic Research, 2009, 27, 1197-1203.	1.2	168
88	Drilling and microfracture lead to different bone structure and necrosis during boneâ€marrow stimulation for cartilage repair. Journal of Orthopaedic Research, 2009, 27, 1432-1438.	1.2	224
89	CHO Cells Adhering to Nitrogenâ€Rich Plasmaâ€Polymerised Ethylene Exhibit High Production of a Specific Recombinant Protein. Macromolecular Bioscience, 2009, 9, 979-988.	2.1	9
90	Improved reproducibility in the determination of the molecular weight of chitosan by analytical size exclusion chromatography. Carbohydrate Polymers, 2009, 75, 528-533.	5.1	66

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91	Chitosanâ€“plasmid nanoparticle formulations for IM and SC delivery of recombinant FGF-2 and PDGF-BB or generation of antibodies. Gene Therapy, 2009, 16, 1097-1110.	2.3	65
92	Fractionation and characterization of chitosan by analytical SEC and 1H NMR after semi-preparative SEC. Carbohydrate Polymers, 2009, 75, 636-645.	5.1	65
93	New Insights into Chitosanâ˜DNA Interactions Using Isothermal Titration Microcalorimetry. Biomacromolecules, 2009, 10, 1490-1499.	2.6	137
94	Extracellular Matrix of Cartilage and Meniscus by ESEM and Immunogold Labeling. Microscopy and Microanalysis, 2009, 15, 970-971.	0.2	0
95	Gene delivery by electroporation after dielectrophoretic positioning of cells in a non-uniform electric field. Bioelectrochemistry, 2008, 72, 141-148.	2.4	38
96	Ultrastructure of hybrid chitosanâ€“glycerol phosphate blood clots by environmental scanning electron microscopy. Microscopy Research and Technique, 2008, 71, 236-247.	1.2	35
97	The fate of Pluronic Fâ€68 in chondrocytes and CHO cells. Biotechnology and Bioengineering, 2008, 100, 975-987.	1.7	58
98	Precise derivatization of structurally distinct chitosans with rhodamine B isothiocyanate. Carbohydrate Polymers, 2008, 72, 616-624.	5.1	66
99	Tyrosinase-Catalyzed Synthesis of a Universal Coil-Chitosan Bioconjugate for Protein Immobilization. Bioconjugate Chemistry, 2008, 19, 1849-1854.	1.8	39
100	Heat-Induced Transfer of Protons from Chitosan to Glycerol Phosphate Produces Chitosan Precipitation and Gelation. Biomacromolecules, 2008, 9, 640-650.	2.6	108
101	Chondrocyte Aggregation in Suspension Culture Is GFOGER-GPP- and Î²1 Integrin-dependent. Journal of Biological Chemistry, 2008, 283, 31522-31530.	1.6	45
102	Cartilage Repair With Chitosan-Glycerol Phosphate-Stabilized Blood Clots. , 2007, , 85-104.		11
103	Fibronectin, Vitronectin, and Collagen I Induce Chemotaxis and Haptotaxis of Human and Rabbit Mesenchymal Stem Cells in a Standardized Transmembrane Assay. Stem Cells and Development, 2007, 16, 489-502.	1.1	86
104	Ionization and Solubility of Chitosan Solutions Related to Thermosensitive Chitosan/Glycerol-Phosphate Systems. Biomacromolecules, 2007, 8, 3224-3234.	2.6	123
105	Cytocompatible gel formation of chitosan-glycerol phosphate solutions supplemented with hydroxyl ethyl cellulose is due to the presence of glyoxal. Journal of Biomedical Materials Research - Part A, 2007, 83A, 521-529.	2.1	96
106	Chitosanâ€“glycerol phosphate/blood implants elicit hyaline cartilage repair integrated with porous subchondral bone in microdrilled rabbit defects. Osteoarthritis and Cartilage, 2007, 15, 78-89.	0.6	207
107	Chitosanâ€“glycerol phosphate/blood implants increase cell recruitment, transient vascularization and subchondral bone remodeling in drilled cartilage defects. Osteoarthritis and Cartilage, 2007, 15, 316-327.	0.6	165
108	BST-CarGel: In Situ ChondroInduction for Cartilage Repair. Operative Techniques in Orthopaedics, 2006, 16, 271-278.	0.2	54

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109	Monolithic gelation of chitosan solutions via enzymatic hydrolysis of urea. Carbohydrate Polymers, 2006, 64, 419-424.	5.1	50
110	High efficiency gene transfer using chitosan/DNA nanoparticles with specific combinations of molecular weight and degree of deacetylation. Biomaterials, 2006, 27, 4815-4824.	5.7	407
111	Migration of bone marrow stromal cells in 3D: 4 Color methodology reveals spatially and temporally coordinated events. Cytoskeleton, 2006, 63, 725-740.	4.4	5
112	Defects in articular cartilage metabolism and early arthritis in fibroblast growth factor receptor 3 deficient mice. Human Molecular Genetics, 2006, 15, 1783-1792.	1.4	78
113	Optimization of Histoprocessing Methods to Detect Glycosaminoglycan, Collagen Type II, and Collagen Type I in Decalcified Rabbit Osteochondral Sections. Journal of Histotechnology, 2005, 28, 165-175.	0.2	31
114	A transport model of electrolyte convection through a charged membrane predicts generation of net charge at membrane/electrolyte interfaces. Journal of Membrane Science, 2005, 265, 60-73.	4.1	14
115	Aged bovine chondrocytes display a diminished capacity to produce a collagen-rich, mechanically functional cartilage extracellular matrix. Journal of Orthopaedic Research, 2005, 23, 1354-1362.	1.2	100
116	Aged bovine chondrocytes display a diminished capacity to produce a collagen-rich, mechanically functional cartilage extracellular matrix. Journal of Orthopaedic Research, 2005, 23, 1354-1362.	1.2	9
117	Tissue engineering of cartilage using an injectable and adhesive chitosan-based cell-delivery vehicle. Osteoarthritis and Cartilage, 2005, 13, 318-329.	0.6	323
118	Low calcium levels in serum-free media maintain chondrocyte phenotype in monolayer culture and reduce chondrocyte aggregation in suspension culture. Osteoarthritis and Cartilage, 2005, 13, 1012-1024.	0.6	35
119	Chitosan-Glycerol Phosphate/Blood Implants Improve Hyaline Cartilage Repair in Ovine Microfracture Defects. Journal of Bone and Joint Surgery - Series A, 2005, 87, 2671-2686.	1.4	241
120	Fibroblast Growth Factor (FGF) 18 Signals through FGF Receptor 3 to Promote Chondrogenesis*. Journal of Biological Chemistry, 2005, 280, 20509-20515.	1.6	218
121	Optimal Processing Method to Obtain Four-color Confocal Fluorescent Images of the Cytoskeleton and Nucleus in Three-dimensional Chondrocyte Cultures. Journal of Histochemistry and Cytochemistry, 2005, 53, 1171-1175.	1.3	10
122	CHITOSAN-GLYCEROL PHOSPHATE/BLOOD IMPLANTS IMPROVE HYALINE CARTILAGE REPAIR IN OVINE MICROFRACTURE DEFECTS. Journal of Bone and Joint Surgery - Series A, 2005, 87, 2671-2686.	1.4	82
123	Nonlinear Tensile Properties of Bovine Articular Cartilage and Their Variation With Age and Depth. Journal of Biomechanical Engineering, 2004, 126, 129-137.	0.6	88
124	Tetrapolar Measurement of Electrical Conductivity and Thickness of Articular Cartilage. Journal of Biomechanical Engineering, 2004, 126, 475-484.	0.6	24
125	Fabrication and Characterization of Nonplanar Microelectrode Array Circuits for Use in Arthroscopic Diagnosis of Cartilage Diseases. IEEE Transactions on Biomedical Engineering, 2004, 51, 2164-2173.	2.5	14
126	Degree of crosslinking and mechanical properties of crosslinked poly(vinyl alcohol) beads for use in solid-phase organic synthesis. Polymer, 2004, 45, 8201-8210.	1.8	44

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127	Dynamic measurement of internal solid displacement in articular cartilage using ultrasound backscatter. Journal of Biomechanics, 2003, 36, 443-447.	0.9	54
128	Increasing strain and strain rate strengthen transient stiffness but weaken the response to subsequent compression for articular cartilage in unconfined compression. Journal of Biomechanics, 2003, 36, 853-859.	0.9	40
129	A validated 1H NMR method for the determination of the degree of deacetylation of chitosan. Journal of Pharmaceutical and Biomedical Analysis, 2003, 32, 1149-1158.	1.4	536
130	Mechanical anisotropy of the human knee articular cartilage in compression. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2003, 217, 215-219.	1.0	145
131	Strain-rate Dependent Stiffness of Articular Cartilage in Unconfined Compression. Journal of Biomechanical Engineering, 2003, 125, 161-168.	0.6	108
132	Alterations in Mechanical Behaviour of Articular Cartilage due to Changes in Depth Varying Material Properties--a Nonhomogeneous Poroelastic Model Study. Computer Methods in Biomechanics and Biomedical Engineering, 2002, 5, 45-52.	0.9	22
133	A Multivalent Assay to Detect Glycosaminoglycan, Protein, Collagen, RNA, and DNA Content in Milligram Samples of Cartilage or Hydrogel-Based Repair Cartilage. Analytical Biochemistry, 2002, 300, 1-10.	1.1	144
134	Detection and analysis of cartilage degeneration by spatially resolved streaming potentials. Journal of Orthopaedic Research, 2002, 20, 819-826.	1.2	49
135	Cyclic compression of cartilage/bone explants in vitro leads to physical weakening, mechanical breakdown of collagen and release of matrix fragments. Journal of Orthopaedic Research, 2002, 20, 1265-1273.	1.2	119
136	Mechanical properties and structure of swollen crosslinked high amylose starch tablets. Carbohydrate Polymers, 2002, 47, 259-266.	5.1	36
137	Streaming potentials maps are spatially resolved indicators of amplitude, frequency and ionic strength dependant responses of articular cartilage to load. Journal of Biomechanics, 2002, 35, 207-216.	0.9	57
138	The role of fibril reinforcement in the mechanical behavior of cartilage. Biorheology, 2002, 39, 89-96.	1.2	21
139	Soluble Recombinant Neprilysin Induces Aggrecanase-Mediated Cleavage of Aggrecan in Cartilage Explant Cultures. Archives of Biochemistry and Biophysics, 2001, 396, 178-186.	1.4	11
140	The Asymmetry of Transient Response in Compression Versus Release for Cartilage in Unconfined Compression. Journal of Biomechanical Engineering, 2001, 123, 519-522.	0.6	20
141	Rheological characterisation of thermogelling chitosan/glycerol-phosphate solutions. Carbohydrate Polymers, 2001, 46, 39-47.	5.1	465
142	Effects of steam sterilization on thermogelling chitosan-based gels. Journal of Biomedical Materials Research Part B, 2001, 58, 127-135.	3.0	109
143	High Frequency Acoustic Parameters of Human and Bovine Articular Cartilage following Experimentally-Induced Matrix Degradation. Ultrasonic Imaging, 2001, 23, 106-116.	1.4	56
144	Unconfined Compression of Articular Cartilage: Nonlinear Behavior and Comparison With a Fibril-Reinforced Biphasic Model. Journal of Biomechanical Engineering, 2000, 122, 189-195.	0.6	89

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145	Ruthenium Hexaammine Trichloride Chemography for Aggrecan Mapping in Cartilage Is a Sensitive Indicator of Matrix Degradation. Journal of Histochemistry and Cytochemistry, 2000, 48, 81-88.	1.3	12
146	<title>Cross-correlation of ultrasound A-lines to obtain dynamic displacement profiles within poroelastic materials undergoing stress relaxation</title>. , 2000, 3982, 286.		9
147	A fibril reinforced nonhomogeneous poroelastic model for articular cartilage: inhomogeneous response in unconfined compression. Journal of Biomechanics, 2000, 33, 1533-1541.	0.9	149
148	Novel injectable neutral solutions of chitosan form biodegradable gels in situ. Biomaterials, 2000, 21, 2155-2161.	5.7	1,237
149	The Chondrocyte Cytoskeleton in Mature Articular Cartilage: Structure and Distribution of Actin, Tubulin, and Vimentin Filaments. Journal of Histochemistry and Cytochemistry, 2000, 48, 1307-1320.	1.3	106
150	A Fibril-Network-Reinforced Biphasic Model of Cartilage in Unconfined Compression. Journal of Biomechanical Engineering, 1999, 121, 340-347.	0.6	212
151	Mature Full-thickness Articular Cartilage Explants Attached to Bone are Physiologically Stable over Long-term Culture in Serum-free Media. Connective Tissue Research, 1999, 40, 259-272.	1.1	58
152	Nonlinear analysis of cartilage in unconfined ramp compression using a fibril reinforced poroelastic model. Clinical Biomechanics, 1999, 14, 673-682.	0.5	219
153	Stimulation of Aggrecan Synthesis in Cartilage Explants by Cyclic Loading Is Localized to Regions of High Interstitial Fluid Flow1. Archives of Biochemistry and Biophysics, 1999, 366, 1-7.	1.4	238
154	Chondrocyte biosynthesis correlates with local tissue strain in statically compressed adult articular cartilage. Journal of Orthopaedic Research, 1997, 15, 189-196.	1.2	150
155	Numerical conversion of transient to harmonic response functions for linear viscoelastic materials. Journal of Biomechanics, 1997, 30, 197-202.	0.9	10
156	Optical and mechanical determination of poisson's ratio of adult bovine humeral articular cartilage. Journal of Biomechanics, 1997, 30, 235-241.	0.9	311
157	Confined compression of articular cartilage. Journal of Biomechanics, 1997, 31, 171-178.	0.9	62
158	A method of quantitative autoradiography for the spatial localization of proteoglycan synthesis rates in cartilage.. Journal of Histochemistry and Cytochemistry, 1996, 44, 423-431.	1.3	27
159	A Molecular Model of Proteoglycan-Associated Electrostatic Forces in Cartilage Mechanics. Journal of Biomechanical Engineering, 1995, 117, 179-192.	0.6	275
160	Vitrification of articular cartilage by highâ€pressure freezing. Journal of Microscopy, 1995, 179, 321-322.	0.8	172
161	Mechanical compression modulates matrix biosynthesis in chondrocyte/agarose culture. Journal of Cell Science, 1995, 108 (Pt 4), 1497-508.	1.2	174
162	Chondrocytes in agarose culture synthesize a mechanically functional extracellular matrix. Journal of Orthopaedic Research, 1992, 10, 745-758.	1.2	473

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163	NMR chemical shift imaging. Computerized Medical Imaging and Graphics, 1989, 13, 93-104.	3.5	8