

# Gerrit Harry van Lenthe

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

140  
papers

5,957  
citations

39  
h-index

74  
g-index

156  
ext. papers

6,567  
ext. citations

4.3  
avg, IF

5.55  
L-index

#	Paper	IF	Citations
140	Adaptive local thresholding can enhance the accuracy of HR-pQCT-based trabecular bone morphology assessment. <i>Bone</i> , <b>2022</b> , 154, 116225	4.7	0
139	A novel 3D-printed, patient-specific alloplastic temporomandibular joint replacement allowing entheses reconstruction: A finite element analysis. <i>Annals of 3D Printed Medicine</i> , <b>2022</b> , 6, 100058		
138	Experimental validation of a voxel-based finite element model simulating femoroplasty of lytic lesions in the proximal femur.. <i>Scientific Reports</i> , <b>2022</b> , 12, 7602	4.9	0
137	Cemented short-stem total hip arthroplasty: Characteristics of line-to-line versus undersized cementing techniques using a validated CT-based finite element analysis. <i>Journal of Orthopaedic Research</i> , <b>2021</b> , 39, 1681-1690	3.8	2
136	Homogenized finite element models can accurately predict screw pull-out in continuum materials, but not in porous materials. <i>Computer Methods and Programs in Biomedicine</i> , <b>2021</b> , 202, 105966	6.9	5
135	Finite Element Investigation of Fracture Risk Under Postero-Anterior Mobilization on a Lumbar Bone in Elderly With and Without Osteoporosis. <i>Journal of Medical and Biological Engineering</i> , <b>2021</b> , 41, 285-294	2.2	4
134	Mechanical evaluation of a patient-specific additively manufactured subperiosteal jaw implant (AMSJI) using finite-element analysis. <i>International Journal of Oral and Maxillofacial Surgery</i> , <b>2021</b> ,	2.9	2
133	Automated muscle elongation measurement during reverse shoulder arthroplasty planning. <i>Journal of Shoulder and Elbow Surgery</i> , <b>2021</b> , 30, 561-571	4.3	2
132	Mechanical and morphological characterization of PMMA/bone composites in human femoral heads. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2021</b> , 115, 104247	4.1	3
131	Quantification of 3D microstructural parameters of trabecular bone is affected by the analysis software. <i>Bone</i> , <b>2021</b> , 142, 115653	4.7	2
130	High-Resolution Cone-Beam Computed Tomography is a Fast and Promising Technique to Quantify Bone Microstructure and Mechanics of the Distal Radius. <i>Calcified Tissue International</i> , <b>2021</b> , 108, 314-323	3.9	2
129	Local anisotropy in mineralized fibrocartilage and subchondral bone beneath the tendon-bone interface. <i>Scientific Reports</i> , <b>2021</b> , 11, 16534	4.9	2
128	Stress distribution in the bonobo () trapeziometacarpal joint during grasping. <i>PeerJ</i> , <b>2021</b> , 9, e12068	3.1	0
127	Alterations in osteocyte lacunar morphology affect local bone tissue strains. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2021</b> , 123, 104730	4.1	2
126	Estrogen receptor alpha signaling in extrahypothalamic neurons during late puberty decreases bone size and strength in female but not in male mice. <i>FASEB Journal</i> , <b>2020</b> , 34, 7118-7126	0.9	3
125	Integration of cortical thickness data in a statistical shape model of the scapula. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2020</b> , 23, 642-648	2.1	2
124	Finite element models for fracture prevention in patients with metastatic bone disease. A literature review. <i>Bone Reports</i> , <b>2020</b> , 12, 100286	2.6	7

123	Nonlinear voxel-based finite element model for strength assessment of healthy and metastatic proximal femurs. <i>Bone Reports</i> , <b>2020</b> , 12, 100263	2.6	5
122	Finite Element Analysis of Custom Shoulder Implants Provides Accurate Prediction of Initial Stability. <i>Mathematics</i> , <b>2020</b> , 8, 1113	2.3	2
121	Cement augmentation of metastatic lesions in the proximal femur can improve bone strength. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2020</b> , 104, 103648	4.1	2
120	Reply Letter to the Editor: Clinical in Vivo Assessment of Bone Microarchitecture With CT Scanners: An Enduring Challenge. <i>Journal of Bone and Mineral Research</i> , <b>2020</b> , 35, 413-414	6.3	
119	Does Unicondylar Knee Arthroplasty Affect Tibial Bone Strain? A Paired Cadaveric Comparison of Fixed- and Mobile-bearing Designs. <i>Clinical Orthopaedics and Related Research</i> , <b>2020</b> , 478, 1990-2000	2.2	5
118	Correlation Between Cone-Beam Computed Tomography and High-Resolution Peripheral Computed Tomography for Assessment of Wrist Bone Microstructure. <i>Journal of Bone and Mineral Research</i> , <b>2019</b> , 34, 867-874	6.3	13
117	Effect of anatomical variability on stress-shielding induced by short calcar-guided stems: Automated finite element analysis of 90 femora. <i>Journal of Orthopaedic Research</i> , <b>2019</b> , 37, 681-688	3.8	7
116	Skull fracture prediction through subject-specific finite element modelling is highly sensitive to model parameters. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2019</b> , 100, 103384	4.1	7
115	Mobility and structural constraints of the bonobo trapeziometacarpal joint. <i>Biological Journal of the Linnean Society</i> , <b>2019</b> , 127, 681-693	1.9	7
114	Diffusion of charged and uncharged contrast agents in equine mandibular condylar cartilage is not affected by an increased level of sugar-induced collagen crosslinking. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2019</b> , 90, 133-139	4.1	2
113	Unraveling the compromised biomechanical performance of type 2 diabetes- and Roux-en-Y gastric bypass bone by linking mechanical-structural and physico-chemical properties. <i>Scientific Reports</i> , <b>2018</b> , 8, 5881	4.9	14
112	Mechanical stiffness of TMJ condylar cartilage increases after artificial aging by ribose. <i>Archives of Oral Biology</i> , <b>2018</b> , 87, 102-109	2.8	5
111	A novel contact interaction formulation for voxel-based micro-finite-element models of bone. <i>International Journal for Numerical Methods in Engineering</i> , <b>2018</b> , 115, 411-426	2.4	2
110	Age-related changes in female mouse cortical bone microporosity. <i>Bone</i> , <b>2018</b> , 113, 1-8	4.7	28
109	Aging does not change the compressive stiffness of mandibular condylar cartilage in horses. <i>Osteoarthritis and Cartilage</i> , <b>2018</b> , 26, 1744-1752	6.2	1
108	Mechanical Loading Differentially Affects Osteocytes in Fibulae from Lactating Mice Compared to Osteocytes in Virgin Mice: Possible Role for Lacuna Size. <i>Calcified Tissue International</i> , <b>2018</b> , 103, 675-683	3.9	27
107	Quantification of bone microstructure in the wrist using cone-beam computed tomography. <i>Bone</i> , <b>2018</b> , 114, 206-214	4.7	12
106	Patient-specific in silico models can quantify primary implant stability in elderly human bone. <i>Journal of Orthopaedic Research</i> , <b>2018</b> , 36, 954-962	3.8	5

105	Computer-based automatic classification of trabecular bone pattern can assist radiographic bone quality assessment at dental implant site. <i>British Journal of Radiology</i> , <b>2018</b> , 91, 20180437	3.4	5
104	A novel in silico method to quantify primary stability of screws in trabecular bone. <i>Journal of Orthopaedic Research</i> , <b>2017</b> , 35, 2415-2424	3.8	14
103	A novel method for segmenting and aligning the pre- and post-implantation scaffolds of resorbable calcium-phosphate bone substitutes. <i>Acta Biomaterialia</i> , <b>2017</b> , 54, 441-453	10.8	6
102	Ex vivo thickness measurement of cartilage covering the temporomandibular joint. <i>Journal of Biomechanics</i> , <b>2017</b> , 52, 165-168	2.9	8
101	Accuracy and reproducibility of mouse cortical bone microporosity as quantified by desktop microcomputed tomography. <i>PLoS ONE</i> , <b>2017</b> , 12, e0182996	3.7	14
100	In vivo biomechanical behavior of the trapeziometacarpal joint in healthy and osteoarthritic subjects. <i>Clinical Biomechanics</i> , <b>2017</b> , 49, 119-127	2.2	12
99	Aging, Osteocytes, and Mechanotransduction. <i>Current Osteoporosis Reports</i> , <b>2017</b> , 15, 401-411	5.4	106
98	Quantifying thumb opposition kinematics using dynamic computed tomography. <i>Journal of Biomechanics</i> , <b>2016</b> , 49, 1994-1999	2.9	16
97	Screw insertion in trabecular bone causes peri-implant bone damage. <i>Medical Engineering and Physics</i> , <b>2016</b> , 38, 417-22	2.4	26
96	A CT-based investigation of the influence of tissue modulus variation, anisotropy and inhomogeneity on ultrasound propagation in trabecular bone. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2016</b> , 60, 416-424	4.1	1
95	Technical Note: Cortical thickness and density estimation from clinical CT using a prior thickness-density relationship. <i>Medical Physics</i> , <b>2016</b> , 43, 1945	4.4	22
94	Quantification of trabecular spatial orientation from low-resolution images. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2015</b> , 18, 1392-9	2.1	3
93	Positive association between serum silicon levels and bone mineral density in female rats following oral silicon supplementation with monomethylsilanetriol. <i>Osteoporosis International</i> , <b>2015</b> , 26, 1405-15	5.3	15
92	Mechanical competence of ovariectomy-induced compromised bone after single or combined treatment with high-frequency loading and bisphosphonates. <i>Scientific Reports</i> , <b>2015</b> , 5, 10795	4.9	14
91	Computational analysis of primary implant stability in trabecular bone. <i>Journal of Biomechanics</i> , <b>2015</b> , 48, 807-15	2.9	29
90	Geometrical characterization and micro-structural modeling of short steel fiber composites. <i>Composites Part A: Applied Science and Manufacturing</i> , <b>2014</b> , 67, 171-180	8.4	21
89	Load sharing and ligament strains in balanced, overstuffed and understuffed UKA. A validated finite element analysis. <i>Journal of Arthroplasty</i> , <b>2014</b> , 29, 1491-8	4.4	47
88	Role of subject-specific musculoskeletal loading on the prediction of bone density distribution in the proximal femur. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2014</b> , 30, 244-52	4.1	29

87	The effect of resorption cavities on bone stiffness is site dependent. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2014</b> , 17, 1483-91	2.1	1
86	Trabecular bone adaptation to low-magnitude high-frequency loading in microgravity. <i>PLoS ONE</i> , <b>2014</b> , 9, e93527	3.7	4
85	From histology to micro-CT: Measuring and modeling resorption cavities and their relation to bone competence. <i>World Journal of Radiology</i> , <b>2014</b> , 6, 643-56	2.9	12
84	Glucocorticoid-induced changes in the geometry of osteoclast resorption cavities affect trabecular bone stiffness. <i>Calcified Tissue International</i> , <b>2013</b> , 92, 240-50	3.9	22
83	Time-lapsed imaging of implant fixation failure in human femoral heads. <i>Medical Engineering and Physics</i> , <b>2013</b> , 35, 636-43	2.4	24
82	Subject-specific bone loading estimation in the human distal radius. <i>Journal of Biomechanics</i> , <b>2013</b> , 46, 759-66	2.9	34
81	Peri-implant bone microstructure determines dynamic implant cut-out. <i>Medical Engineering and Physics</i> , <b>2013</b> , 35, 1442-9	2.4	22
80	High-throughput quantification of the mechanical competence of murine femora--a highly automated approach for large-scale genetic studies. <i>Bone</i> , <b>2013</b> , 55, 216-21	4.7	11
79	Transmission of whole-body vibration and its effect on muscle activation. <i>Journal of Strength and Conditioning Research</i> , <b>2013</b> , 27, 2533-41	3.2	35
78	A non-linear homogeneous model for bone-like materials under compressive load. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2012</b> , 28, 273-87	2.6	6
77	Augmentation of peri-implant bone improves implant stability: quantification using simulated bone loss. <i>Journal of Orthopaedic Research</i> , <b>2012</b> , 30, 178-84	3.8	11
76	Experimental and finite element analysis of the mouse caudal vertebrae loading model: prediction of cortical and trabecular bone adaptation. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2012</b> , 11, 221-30	3.8	24
75	The discrete nature of trabecular bone microarchitecture affects implant stability. <i>Journal of Biomechanics</i> , <b>2012</b> , 45, 1060-7	2.9	36
74	The different contributions of cortical and trabecular bone to implant anchorage in a human vertebra. <i>Bone</i> , <b>2012</b> , 50, 733-8	4.7	35
73	Enhancement of implant osseointegration by high-frequency low-magnitude loading. <i>PLoS ONE</i> , <b>2012</b> , 7, e40488	3.7	15
72	Mechanisms of reduced implant stability in osteoporotic bone. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2012</b> , 11, 313-23	3.8	18
71	3D characterization of bone strains in the rat tibia loading model. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2012</b> , 11, 403-10	3.8	29
70	Use of micro-CT-based finite element analysis to accurately quantify peri-implant bone strains: a validation in rat tibiae. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2012</b> , 11, 743-50	3.8	27

69	In vivo assessment of the effect of controlled high- and low-frequency mechanical loading on peri-implant bone healing. <i>Journal of the Royal Society Interface</i> , <b>2012</b> , 9, 1697-704	4.1	18
68	Implant stability is affected by local bone microstructural quality. <i>Bone</i> , <b>2011</b> , 49, 473-8	4.7	62
67	The importance of murine cortical bone microstructure for microcrack initiation and propagation. <i>Bone</i> , <b>2011</b> , 49, 1186-93	4.7	34
66	Computational finite element bone mechanics accurately predicts mechanical competence in the human radius of an elderly population. <i>Bone</i> , <b>2011</b> , 48, 1232-8	4.7	103
65	Mechanical stability in a human radius fracture treated with a novel tissue-engineered bone substitute: a non-invasive, longitudinal assessment using high-resolution pQCT in combination with finite element analysis. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , <b>2011</b> , 5, 415-20	4.4	12
64	Fast and accurate specimen-specific simulation of trabecular bone elastic modulus using novel beam-shell finite element models. <i>Journal of Biomechanics</i> , <b>2011</b> , 44, 1566-72	2.9	16
63	Abnormal bone microarchitecture and evidence of osteoblast dysfunction in premenopausal women with idiopathic osteoporosis. <i>Journal of Clinical Endocrinology and Metabolism</i> , <b>2011</b> , 96, 3095-105 <sup>5.6</sup>	5.6	58
62	Towards validation of computational analyses of peri-implant displacements by means of experimentally obtained displacement maps. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2011</b> , 14, 165-74	2.1	13
61	Comparison of optical coherence tomography, microcomputed tomography, and histology at a three-dimensionally imaged trabecular bone sample. <i>Journal of Biomedical Optics</i> , <b>2010</b> , 15, 046019	3.5	10
60	Sexual dimorphism in cortical bone size and strength but not density is determined by independent and time-specific actions of sex steroids and IGF-1: evidence from pubertal mouse models. <i>Journal of Bone and Mineral Research</i> , <b>2010</b> , 25, 617-26	6.3	92
59	Assessment of trabecular and cortical architecture and mechanical competence of bone by high-resolution peripheral computed tomography: comparison with transiliac bone biopsy. <i>Osteoporosis International</i> , <b>2010</b> , 21, 263-73	5.3	128
58	Assessing forearm fracture risk in postmenopausal women. <i>Osteoporosis International</i> , <b>2010</b> , 21, 1161-9	5.3	95
57	Mechanical competence of bone-implant systems can accurately be determined by image-based micro-finite element analyses. <i>Archive of Applied Mechanics</i> , <b>2010</b> , 80, 513-525	2.2	30
56	Extreme scalability challenges in micro-finite element simulations of human bone. <i>Concurrency Computation Practice and Experience</i> , <b>2010</b> , 22, 2282-2296	1.4	13
55	A new route to produce starch-based fiber mesh scaffolds by wet spinning and subsequent surface modification as a way to improve cell attachment and proliferation. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2010</b> , 92, 369-77	5.4	50
54	Quantitative, structural, and image-based mechanical analysis of nonunion fracture repaired by genetically engineered mesenchymal stem cells. <i>Journal of Biomechanics</i> , <b>2010</b> , 43, 2315-20	2.9	22
53	Computational analyses of small endosseous implants in osteoporotic bone. <i>European Cells and Materials</i> , <b>2010</b> , 20, 58-71	4.3	21
52	Differential regulation of bone and body composition in male mice with combined inactivation of androgen and estrogen receptor-alpha. <i>FASEB Journal</i> , <b>2009</b> , 23, 232-40	0.9	104

51	Bone structure at the distal radius during adolescent growth. <i>Journal of Bone and Mineral Research</i> , <b>2009</b> , 24, 1033-42	6.3	198
50	Non-invasive bone competence analysis by high-resolution pQCT: an in vitro reproducibility study on structural and mechanical properties at the human radius. <i>Bone</i> , <b>2009</b> , 44, 364-71	4.7	79
49	Time-lapsed assessment of microcrack initiation and propagation in murine cortical bone at submicrometer resolution. <i>Bone</i> , <b>2009</b> , 45, 164-73	4.7	69
48	Regional, age and gender differences in architectural measures of bone quality and their correlation to bone mechanical competence in the human radius of an elderly population. <i>Bone</i> , <b>2009</b> , 45, 882-91	4.7	69
47	Hydroxyapatite particles maintain peri-implant bone mantle during osseointegration in osteoporotic bone. <i>Bone</i> , <b>2009</b> , 45, 1117-24	4.7	23
46	A fast convolution-based methodology to simulate 2-D/3-D cardiac ultrasound images. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , <b>2009</b> , 56, 404-9	3.2	87
45	Microstructural quality of vertebral trabecular bone can be assessed from ultrasonic wave propagation. <i>IFMBE Proceedings</i> , <b>2009</b> , 1794-1797	0.2	1
44	<b>2009</b> ,		2
43	In silico biology of bone modelling and remodelling: adaptation. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2009</b> , 367, 2011-30	3	45
42	Multi-level patient-specific modelling of the proximal femur. A promising tool to quantify the effect of osteoporosis treatment. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2009</b> , 367, 2079-93	3	27
41	A Validated Skeleton-based Finite Element Mesh for Parametric Analysis of Trabecular Bone Competence. <i>IFMBE Proceedings</i> , <b>2009</b> , 1777-1780	0.2	1
40	A Convolution-based Methodology to Simulate Cardiac Ultrasound Data Sets: Integration of Realistic Beam Profiles. <i>IFMBE Proceedings</i> , <b>2009</b> , 2520-2523	0.2	1
39	CT-based visualization and quantification of bone microstructure in vivo. <i>IBMS BoneKEy</i> , <b>2008</b> , 5, 410-425		12
38	Tissue modulus calculated from beam theory is biased by bone size and geometry: implications for the use of three-point bending tests to determine bone tissue modulus. <i>Bone</i> , <b>2008</b> , 43, 717-23	4.7	54
37	Femoral stiffness and strength critically depend on loading angle: a parametric study in a mouse-inbred strain. <i>Biomedizinische Technik</i> , <b>2008</b> , 53, 122-9	1.3	13
36	A novel in vivo mouse model for mechanically stimulated bone adaptation--a combined experimental and computational validation study. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2008</b> , 11, 435-41	2.1	58
35	<b>2008</b> ,		1
34	Quantification of bone structural parameters and mechanical competence at the distal radius. <i>Journal of Orthopaedic Trauma</i> , <b>2008</b> , 22, S66-72	3.1	11

33	Differential effects of bone structural and material properties on bone competence in C57BL/6 and C3H/He inbred strains of mice. <i>Calcified Tissue International</i> , <b>2008</b> , 83, 61-9	3.9	13
32	A scalable multi-level preconditioner for matrix-free $\bar{\mu}$ -finite element analysis of human bone structures. <i>International Journal for Numerical Methods in Engineering</i> , <b>2008</b> , 73, 927-947	2.4	108
31	Bone morphometry strongly predicts cortical bone stiffness and strength, but not toughness, in inbred mouse models of high and low bone mass. <i>Journal of Bone and Mineral Research</i> , <b>2008</b> , 23, 1194-203	6.3	30
30	Biomechanical comparison of different surface modifications for dental implants. <i>International Journal of Oral and Maxillofacial Implants</i> , <b>2008</b> , 23, 1037-46	2.8	72
29	Contribution of in vivo structural measurements and load/strength ratios to the determination of forearm fracture risk in postmenopausal women. <i>Journal of Bone and Mineral Research</i> , <b>2007</b> , 22, 1442-8	6.3	156
28	Nondestructive micro-computed tomography for biological imaging and quantification of scaffold-bone interaction in vivo. <i>Biomaterials</i> , <b>2007</b> , 28, 2479-90	15.6	164
27	Pedicle vascularized rib transfer for reconstruction of clavicle nonunions with bony defects: anatomical and biomechanical considerations. <i>Plastic and Reconstructive Surgery</i> , <b>2007</b> , 120, 173-180	2.7	29
26	Trabecular bone failure at the microstructural level. <i>Current Osteoporosis Reports</i> , <b>2006</b> , 4, 80-6	5.4	18
25	Local delivery of bisphosphonate from coated orthopedic implants increases implants mechanical stability in osteoporotic rats. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2006</b> , 76, 133-43	5.4	134
24	Prediction of failure load using micro-finite element analysis models: Toward in vivo strength assessment. <i>Drug Discovery Today: Technologies</i> , <b>2006</b> , 3, 221-9	7.1	29
23	Specimen-specific beam models for fast and accurate prediction of human trabecular bone mechanical properties. <i>Bone</i> , <b>2006</b> , 39, 1182-9	4.7	66
22	Functional microimaging: an integrated approach for advanced bone biomechanics and failure analysis <b>2006</b> ,		1
21	Evaluation of an in situ formed synthetic hydrogel as a biodegradable membrane for guided bone regeneration. <i>Clinical Oral Implants Research</i> , <b>2006</b> , 17, 426-33	4.8	75
20	The influence of surface coatings of dicalcium phosphate (DCPD) and growth and differentiation factor-5 (GDF-5) on the stability of titanium implants in vivo. <i>Biomaterials</i> , <b>2006</b> , 27, 3988-94	15.6	30
19	In vivo behavior of calcium phosphate scaffolds with four different pore sizes. <i>Biomaterials</i> , <b>2006</b> , 27, 5186-98	15.6	219
18	Micro-computed tomography determination of glass fibre reinforced polymer meso-structure. <i>Composites Science and Technology</i> , <b>2006</b> , 66, 2016-2022	8.6	87
17	Importance of individual rods and plates in the assessment of bone quality and their contribution to bone stiffness. <i>Journal of Bone and Mineral Research</i> , <b>2006</b> , 21, 586-95	6.3	110
16	Functional Micro-imaging at the Interface of Bone Mechanics and Biology <b>2006</b> , 473-487		2



15	Synthesis and characterization of porous beta-tricalcium phosphate blocks. <i>Biomaterials</i> , <b>2005</b> , 26, 6099-105	105	124
14	Engineering craniofacial scaffolds. <i>Orthodontics and Craniofacial Research</i> , <b>2005</b> , 8, 162-73	3	231
13	A finite element beam-model for efficient simulation of large-scale porous structures. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2004</b> , 7, 9-16	2.1	10
12	How morphology predicts mechanical properties of trabecular structures depends on intra-specimen trabecular thickness variations. <i>Journal of Biomechanics</i> , <b>2002</b> , 35, 1191-7	2.9	24
11	Stemmed femoral knee prostheses. <i>Acta Orthopaedica</i> , <b>2002</b> , 73, 630-637		25
10	Stemmed femoral knee prostheses: effects of prosthetic design and fixation on bone loss. <i>Acta Orthopaedica</i> , <b>2002</b> , 73, 630-7		30
9	Frictional heating of total hip implants. Part 1: measurements in patients. <i>Journal of Biomechanics</i> , <b>2001</b> , 34, 421-8	2.9	105
8	Frictional heating of total hip implants. Part 2: finite element study. <i>Journal of Biomechanics</i> , <b>2001</b> , 34, 429-35	2.9	60
7	The prospects of estimating trabecular bone tissue properties from the combination of ultrasound, dual-energy X-ray absorptiometry, microcomputed tomography, and microfinite element analysis. <i>Journal of Bone and Mineral Research</i> , <b>2001</b> , 16, 550-5	6.3	19
6	Increase in bone volume fraction precedes architectural adaptation in growing bone. <i>Bone</i> , <b>2001</b> , 28, 650-4	4.7	145
5	A Computer-simulation Model Relating Bone-cell Metabolism to Mechanical Adaptation of Trabecular Architecture. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2001</b> , 4, 433-448	2.1	49
4	Effects of mechanical forces on maintenance and adaptation of form in trabecular bone. <i>Nature</i> , <b>2000</b> , 405, 704-6	50.4	828
3	Speed of sound reflects Young's modulus as assessed by microstructural finite element analysis. <i>Bone</i> , <b>2000</b> , 26, 519-24	4.7	47
2	Correlation between pre-operative periprosthetic bone density and post-operative bone loss in THA can be explained by strain-adaptive remodelling. <i>Journal of Biomechanics</i> , <b>1999</b> , 32, 695-703	2.9	182
1	Stress shielding after total knee replacement may cause bone resorption in the distal femur. <i>Journal of Bone and Joint Surgery: British Volume</i> , <b>1997</b> , 79, 117-22		82