## Juha Töyräs

## List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/6240598/publications.pdf

Version: 2024-02-01

291 papers 9,208 citations

41344 49 h-index 78 g-index

299 all docs

299 docs citations

times ranked

299

5638 citing authors

#	Article	IF	CITATIONS
1	Dualâ€contrast micro T enables cartilage lesion detection and tissue condition evaluation ex vivo. Equine Veterinary Journal, 2023, 55, 315-324.	1.7	5
2	Dualâ€contrast computed tomography enables detection of equine posttraumatic osteoarthritis in vitro. Journal of Orthopaedic Research, 2022, 40, 703-711.	2.3	2
3	Gamma Power of Electroencephalogram Arousal Is Modulated by Respiratory Event Type and Severity in Obstructive Sleep Apnea. IEEE Transactions on Biomedical Engineering, 2022, 69, 1417-1423.	4.2	6
4	Subjectâ€specific biomechanical analysis to estimate locations susceptible to osteoarthritis—Finite element modeling and MRI followâ€up of ACL reconstructed patients. Journal of Orthopaedic Research, 2022, 40, 1744-1755.	2.3	8
5	Changes in subchondral bone structure and mechanical properties do not substantially affect cartilage mechanical responses – A finite element study. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 128, 105129.	3.1	4
6	Deep Learning Enables Accurate Automatic Sleep Staging Based on Ambulatory Forehead EEG. IEEE Access, 2022, 10, 26554-26566.	4.2	11
7	Near infrared spectroscopic evaluation of biochemical and crimp properties of knee joint ligaments and patellar tendon. PLoS ONE, 2022, 17, e0263280.	2.5	2
8	Novel oxygen desaturation parameters are associated with cardiac troponin I: Data from the Akershus Sleep Apnea Project. Journal of Sleep Research, 2022, 31, e13581.	3.2	7
9	Self-Applied Electrode Set Provides a Clinically Feasible Solution Enabling EEG Recording in Home Sleep Apnea Testing. IEEE Access, 2022, 10, 60633-60642.	4.2	3
10	QTc prolongation is associated with severe desaturations in stroke patients with sleep apnea. BMC Pulmonary Medicine, 2022, 22, .	2.0	2
11	Site- and Zone-Dependent Changes in Proteoglycan Content and Biomechanical Properties of Bluntly and Sharply Grooved Equine Articular Cartilage. Annals of Biomedical Engineering, 2022, 50, 1787-1797.	2.5	1
12	The Sleep Revolution project: the concept and objectives. Journal of Sleep Research, 2022, 31, .	3.2	24
13	Longer duration electroencephalogram arousals have a better relationship with impaired vigilance and health status in obstructive sleep apnoea. Sleep and Breathing, 2021, 25, 263-270.	1.7	5
14	Evaluation of articular cartilage with quantitative MRI in an equine model of postâ€traumatic osteoarthritis. Journal of Orthopaedic Research, 2021, 39, 63-73.	2.3	16
15	Comparison of the effect of weight change, simulated computational continuous positive airway pressure treatment and positional therapy on severity of sleep apnea. Journal of Sleep Research, 2021, 30, e13070.	3.2	4
16	Near-Infrared Spectroscopy for Mapping of Human Meniscus Biochemical Constituents. Annals of Biomedical Engineering, 2021, 49, 469-476.	2.5	2
17	Effects of human articular cartilage constituents on simultaneous diffusion of cationic and nonionic contrast agents. Journal of Orthopaedic Research, 2021, 39, 771-779.	2.3	12
18	Detailed Assessment of Sleep Architecture With Deep Learning and Shorter Epoch-to-Epoch Duration Reveals Sleep Fragmentation of Patients With Obstructive Sleep Apnea. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 2567-2574.	6.3	16

#	Article	IF	Citations
19	Neural network analysis of nocturnal SpO2 signal enables easy screening of sleep apnea in patients with acute cerebrovascular disease. Sleep Medicine, 2021, 79, 71-78.	1.6	24
20	Quantification of Myocardial Blood Flow by Machine Learning Analysis of Modified Dual Bolus MRI Examination. Annals of Biomedical Engineering, 2021, 49, 653-662.	2.5	2
21	Discrete element and finite element methods provide similar estimations for hip joint contact mechanics during walking gait. Journal of Biomechanics, 2021, 115, 110163.	2.1	8
22	Characterization of connective tissues using near-infrared spectroscopy and imaging. Nature Protocols, 2021, 16, 1297-1329.	12.0	45
23	Structure, composition and fibril-reinforced poroviscoelastic properties of bovine knee ligaments and patellar tendon. Journal of the Royal Society Interface, 2021, 18, 20200737.	3.4	8
24	An In-Laboratory Comparison of FocusBand EEG Device and Textile Electrodes Against a Medical-Grade System and Wet Gel Electrodes. IEEE Access, 2021, 9, 132580-132591.	4.2	5
25	Infrared Fiber-Optic Spectroscopy Detects Bovine Articular Cartilage Degeneration. Cartilage, 2021, 13, 285S-294S.	2.7	10
26	Quantitative dual contrast photon-counting computed tomography for assessment of articular cartilage health. Scientific Reports, 2021, 11, 5556.	3.3	11
27	Longer and Deeper Desaturations Are Associated With the Worsening of Mild Sleep Apnea: The Sleep Heart Health Study. Frontiers in Neuroscience, 2021, 15, 657126.	2.8	17
28	Biomechanical, biochemical, and near infrared spectral data of bovine knee ligaments and patellar tendon. Data in Brief, 2021, 36, 106976.	1.0	1
29	Assessment of obstructive sleep apnea-related sleep fragmentation utilizing deep learning-based sleep staging from photoplethysmography. Sleep, 2021, 44, .	1.1	17
30	Automatic Respiratory Event Scoring in Obstructive Sleep Apnea Using a Long Short-Term Memory Neural Network. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 2917-2927.	6.3	24
31	Diabetes and cardiovascular diseases are associated with the worsening of intermittent hypoxaemia. Journal of Sleep Research, 2021, , e13441.	3.2	7
32	Articular cartilage optical properties in the near-infrared (NIR) spectral range vary with depth and tissue integrity. Biomedical Optics Express, 2021, 12, 6066.	2.9	5
33	Functional and structural properties of human patellar articular cartilage in osteoarthritis. Journal of Biomechanics, 2021, 126, 110634.	2.1	9
34	Beyond the apnea–hypopnea index: alternative diagnostic parameters and machine learning solutions for estimation of sleep apnea severity. Sleep, 2021, 44, .	1.1	4
35	Self-Applied Home Sleep Recordings. Sleep Medicine Clinics, 2021, 16, 545-556.	2.6	9
36	Raman spectroscopy is sensitive to biochemical changes related to various cartilage injuries. Journal of Raman Spectroscopy, 2021, 52, 796-804.	2.5	12

#	Article	IF	CITATIONS
37	Structural, compositional, and functional effects of blunt and sharp cartilage damage on the joint: A 9â€month equine groove model study. Journal of Orthopaedic Research, 2021, 39, 2363-2375.	2.3	5
38	Technical Performance of Textile-Based Dry Forehead Electrodes Compared With Medical-Grade Overnight Home Sleep Recordings. IEEE Access, 2021, 9, 157902-157915.	4.2	4
39	Triple Contrast CT Method Enables Simultaneous Evaluation of Articular Cartilage Composition and Segmentation. Annals of Biomedical Engineering, 2020, 48, 556-567.	2.5	10
40	Polysomnographic scoring of sleep bruxism events is accurate even in the absence of video recording but unreliable with EMG-only setups. Sleep and Breathing, 2020, 24, 893-904.	1.7	17
41	Intra-night variation in apnea-hypopnea index affects diagnostics and prognostics of obstructive sleep apnea. Sleep and Breathing, 2020, 24, 379-386.	1.7	8
42	Prevalence and characteristics of positional obstructive sleep apnea (POSA) in patients with severe OSA. Sleep and Breathing, 2020, 24, 551-559.	1.7	25
43	Identification of locations susceptible to osteoarthritis in patients with anterior cruciate ligament reconstruction: Combining knee joint computational modelling with follow-up T1i-and T2 imaging. Clinical Biomechanics, 2020, 79, 104844.	1.2	17
44	Synchrotron MicroCT Reveals the Potential of the Dual Contrast Technique for Quantitative Assessment of Human Articular Cartilage Composition. Journal of Orthopaedic Research, 2020, 38, 563-573.	2.3	16
45	Tailored Synthesis of PEGylated Bismuth Nanoparticles for X-ray Computed Tomography and Photothermal Therapy: One-Pot, Targeted Pyrolysis, and Self-Promotion. ACS Applied Materials & Samp; Interfaces, 2020, 12, 47233-47244.	8.0	7
46	Power spectral densities of nocturnal pulse oximetry signals differ in OSA patients with and without daytime sleepiness. Sleep Medicine, 2020, 73, 231-237.	1.6	11
47	Rapid CT-based Estimation of Articular Cartilage Biomechanics in the Knee Joint Without Cartilage Segmentation. Annals of Biomedical Engineering, 2020, 48, 2965-2975.	2.5	10
48	Longer apneas and hypopneas are associated with greater ultra-short-term HRV in obstructive sleep apnea. Scientific Reports, 2020, 10, 21556.	3.3	25
49	Estimating daytime sleepiness with previous night electroencephalography, electrooculography, and electromyography spectrograms in patients with suspected sleep apnea using a convolutional neural network. Sleep, 2020, 43, .	1.1	12
50	Bright ultrashort echo time SWIFT MRI signal at the osteochondral junction is not located in the calcified cartilage. Journal of Orthopaedic Research, 2020, 38, 2649-2656.	2.3	6
51	Machine Learning Classification of Articular Cartilage Integrity Using Near Infrared Spectroscopy. Cellular and Molecular Bioengineering, 2020, 13, 219-228.	2.1	25
52	Effect of Sweating on Electrode-Skin Contact Impedances and Artifacts in EEG Recordings With Various Screen-Printed Ag/Agcl Electrodes. IEEE Access, 2020, 8, 50934-50943.	4.2	36
53	Dual contrast in computed tomography allows earlier characterization of articular cartilage over single contrast. Journal of Orthopaedic Research, 2020, 38, 2230-2238.	2.3	11
54	Severe desaturations increase psychomotor vigilance task-based median reaction time and number of lapses in obstructive sleep apnoea patients. European Respiratory Journal, 2020, 55, 1901849.	6.7	35

#	Article	IF	CITATIONS
55	Open-source python module for automated preprocessing of near infrared spectroscopic data. Analytica Chimica Acta, 2020, 1108, 1-9.	5.4	37
56	Acute stroke and TIA patients have specific polygraphic features of obstructive sleep apnea. Sleep and Breathing, 2020, 24, 1495-1505.	1.7	10
57	Near Infrared Spectroscopy Enables Differentiation of Mechanically and Enzymatically Induced Cartilage Injuries. Annals of Biomedical Engineering, 2020, 48, 2343-2353.	2.5	9
58	Deep learning enables sleep staging from photoplethysmogram for patients with suspected sleep apnea. Sleep, 2020, 43, .	1.1	73
59	Tissue optical properties combined with machine learning enables estimation of articular cartilage composition and functional integrity. Biomedical Optics Express, 2020, 11, 6480.	2.9	13
60	Clinical Contrast-Enhanced Computed Tomography With Semi-Automatic Segmentation Provides Feasible Input for Computational Models of the Knee Joint. Journal of Biomechanical Engineering, 2020, 142, .	1.3	2
61	Increased nocturnal arterial pulsation frequencies of obstructive sleep apnoea patients is associated with an increased number of lapses in a psychomotor vigilance task. ERJ Open Research, 2020, 6, 00277-2020.	2.6	4
62	Quantification of porcine myocardial perfusion with modified dual bolus MRI – a prospective study with a PET reference. BMC Medical Imaging, 2019, 19, 58.	2.7	4
63	Improved Sweat Artifact Tolerance of Screen-Printed EEG Electrodes by Material Selection-Comparison of Electrochemical Properties in Artificial Sweat. IEEE Access, 2019, 7, 133237-133247.	4.2	10
64	Dataset on equine cartilage near infrared spectra, composition, and functional properties. Scientific Data, 2019, 6, 164.	5.3	6
65	Artificial neural network analysis of the oxygen saturation signal enables accurate diagnostics of sleep apnea. Scientific Reports, 2019, 9, 13200.	3.3	42
66	Contrast enhanced computed tomography for real-time quantification of glycosaminoglycans in cartilage tissue engineered constructs. Acta Biomaterialia, 2019, 100, 202-212.	8.3	7
67	Simultaneous Quantitation of Cationic and Non-ionic Contrast Agents in Articular Cartilage Using Synchrotron MicroCT Imaging. Scientific Reports, 2019, 9, 7118.	3.3	16
68	Arthroscopic Determination of Cartilage Proteoglycan Content and Collagen Network Structure with Near-Infrared Spectroscopy. Annals of Biomedical Engineering, 2019, 47, 1815-1826.	2.5	32
69	The hypoxic burden: also known as the desaturation severity parameter. European Heart Journal, 2019, 40, 2991-2993.	2.2	15
70	Near-infrared spectroscopy enables quantitative evaluation of human cartilage biomechanical properties during arthroscopy. Osteoarthritis and Cartilage, 2019, 27, 1235-1243.	1.3	25
71	Computational evaluation of altered biomechanics related to articular cartilage lesions observed in vivo. Journal of Orthopaedic Research, 2019, 37, 1042-1051.	2.3	18
72	Mortalityâ€riskâ€based apnea–hypopnea index thresholds for diagnostics of obstructive sleep apnea. Journal of Sleep Research, 2019, 28, e12855.	3.2	17

#	Article	IF	CITATIONS
73	Imaging of proteoglycan and water contents in human articular cartilage with fullâ€body CT using dual contrast technique. Journal of Orthopaedic Research, 2019, 37, 1059-1070.	2.3	18
74	Severity of Desaturations Reflects OSA-Related Daytime Sleepiness Better Than AHI. Journal of Clinical Sleep Medicine, 2019, 15, 1135-1142.	2.6	69
75	Does Magnetic Resonance Imaging Provide Superior Reliability for Achilles and Patellar Tendon Cross-Sectional Area Measurements Compared with Ultrasound Imaging?. Ultrasound in Medicine and Biology, 2019, 45, 3186-3198.	1.5	14
76	Accurate Deep Learning-Based Sleep Staging in a Clinical Population with Suspected Obstructive Sleep Apnea. IEEE Journal of Biomedical and Health Informatics, 2019, 24, 1-1.	6.3	64
77	Increase in Body Mass Index Decreases Duration of Apneas and Hypopneas in Obstructive Sleep Apnea. Respiratory Care, 2019, 64, 77-84.	1.6	24
78	Near Infrared Spectroscopic Evaluation of Ligament and Tendon Biomechanical Properties. Annals of Biomedical Engineering, 2019, 47, 213-222.	2.5	8
79	Automated Preprocessing of Near Infrared Spectroscopic Data. , 2019, , .		3
80	Arthroscopic Near-Infrared Spectroscopic Prediction of Human Meniscus Properties., 2019,,.		0
81	Mid-infrared and Near infrared spectroscopic analysis of mechanically and enzymatically damaged cartilage. , 2019, , .		0
82	Mid-infrared Spectroscopic Assessment of Cartilage Degeneration. , 2019, , .		0
83	Quantitative susceptibility mapping of articular cartilage: Ex vivo findings at multiple orientations and following different degradation treatments. Magnetic Resonance in Medicine, 2018, 80, 2702-2716.	3.0	20
84	Success Rate and Technical Quality of Home Polysomnography With Self-Applicable Electrode Set in Subjects With Possible Sleep Bruxism. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 1124-1132.	6.3	25
85	Quantitative Dual Contrast CT Technique for Evaluation of Articular Cartilage Properties. Annals of Biomedical Engineering, 2018, 46, 1038-1046.	2.5	20
86	Infrared thermography reveals effect of working posture on skin temperature in office workers. International Journal of Occupational Safety and Ergonomics, 2018, 24, 457-463.	1.9	8
87	The prevalence of REM-related obstructive sleep apnoea is reduced by the AASM 2012 hypopnoea criteria. Sleep and Breathing, 2018, 22, 57-64.	1.7	16
88	Screenâ€printed ambulatory electrode set enables accurate diagnostics of sleep bruxism. Journal of Sleep Research, 2018, 27, 103-112.	3.2	15
89	Home Polysomnography Reveals a First-Night Effect in Patients With Low Sleep Bruxism Activity. Journal of Clinical Sleep Medicine, 2018, 14, 1377-1386.	2.6	33
90	Bayesian Network Model to Evaluate the Effectiveness of Continuous Positive Airway Pressure Treatment of Sleep Apnea. Healthcare Informatics Research, 2018, 24, 346.	1.9	7

#	Article	IF	Citations
91	Comparison between kinetic and kinetic-kinematic driven knee joint finite element models. Scientific Reports, 2018, 8, 17351.	3.3	29
92	Required CPAP usage time to normalize AHI in obstructive sleep apnea patients: a simulation study. Physiological Measurement, 2018, 39, 115009.	2.1	6
93	Differences in arousal probability and duration after apnea and hypopnea events in adult obstructive sleep apnea patients. Physiological Measurement, 2018, 39, 114004.	2.1	18
94	Arthroscopic near infrared spectroscopy enables simultaneous quantitative evaluation of articular cartilage and subchondral bone in vivo. Scientific Reports, 2018, 8, 13409.	3.3	33
95	Accounting for spatial dependency in multivariate spectroscopic data. Chemometrics and Intelligent Laboratory Systems, 2018, 182, 166-171.	3.5	5
96	Method for Segmentation of Knee Articular Cartilages Based on Contrast-Enhanced CT Images. Annals of Biomedical Engineering, 2018, 46, 1756-1767.	2.5	11
97	Characterizing human subchondral bone properties using near-infrared (NIR) spectroscopy. Scientific Reports, 2018, 8, 9733.	3.3	15
98	Multi-scale imaging techniques to investigate solute transport across articular cartilage. Journal of Biomechanics, 2018, 78, 10-20.	2.1	23
99	Spectroscopic Evaluation of Post-Traumatic Osteoarthritis in Shetland Ponies. , 2018, , .		3
100	Deep Learning Classification of Cartilage Integrity Using Near Infrared Spectroscopy. , 2018, , .		2
101	Near-infrared Spectroscopy: A Potential Tool for Mapping Meniscus Properties. , 2018, , .		0
102	Estimating Mechanical Properties of Bovine Knee Ligaments and Tendons with Near Infrared Spectroscopy. , 2018, , .		0
103	Near-infrared Spectroscopy Based Arthroscopic Evaluation of Human Knee Joint Cartilage, Through Automated Selection of an Anatomically Specific Regression Model. , 2018, , .		0
104	Multimodality scoring of chondral injuries in the equine fetlock joint exÂvivo. Osteoarthritis and Cartilage, 2017, 25, 790-798.	1.3	4
105	Porosity predicted from ultrasound backscatter using multivariate analysis can improve accuracy of cortical bone thickness assessment. Journal of the Acoustical Society of America, 2017, 141, 575-585.	1.1	8
106	Regular chondrocyte spacing is a potential cause for coherent ultrasound backscatter in human articular cartilage. Journal of the Acoustical Society of America, 2017, 141, 3105-3116.	1.1	7
107	Severity of desaturation events differs between hypopnea and obstructive apnea events and is modulated by their duration in obstructive sleep apnea. Sleep and Breathing, 2017, 21, 829-835.	1.7	44
108	Peri-apneic hemodynamic reactions in obstructive sleep apnea. Pathophysiology, 2017, 24, 197-203.	2.2	7

#	Article	IF	Citations
109	Infrared microspectroscopic determination of collagen cross-links in articular cartilage. Journal of Biomedical Optics, 2017, 22, 035007.	2.6	6
110	Solute Transport of Negatively Charged Contrast Agents Across Articular Surface of Injured Cartilage. Annals of Biomedical Engineering, 2017, 45, 973-981.	2.5	8
111	In Vivo Contrast-Enhanced Cone Beam CT Provides Quantitative Information on Articular Cartilage and Subchondral Bone. Annals of Biomedical Engineering, 2017, 45, 811-818.	2.5	31
112	Structure-function relationships of human meniscus. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 67, 51-60.	3.1	42
113	Severity of individual obstruction events is gender dependent in sleep apnea. Sleep and Breathing, 2017, 21, 397-404.	1.7	34
114	Dual Contrast CT Method Enables Diagnostics of Cartilage Injuries and Degeneration Using a Single CT Image. Annals of Biomedical Engineering, 2017, 45, 2857-2866.	2.5	22
115	Tissue viscoelasticity is related to tissue composition but may not fully predict the apparent-level viscoelasticity in human trabecular bone – An experimental and finite element study. Journal of Biomechanics, 2017, 65, 96-105.	2.1	22
116	Combination of optical coherence tomography and near infrared spectroscopy enhances determination of articular cartilage composition and structure. Scientific Reports, 2017, 7, 10586.	3.3	16
117	Gender differences in severity of desaturation events following hypopnea and obstructive apnea events in adults during sleep. Physiological Measurement, 2017, 38, 1490-1502.	2.1	18
118	Optimal Regression Method for Near-Infrared Spectroscopic Evaluation of Articular Cartilage. Applied Spectroscopy, 2017, 71, 2253-2262.	2.2	14
119	Ultrasound Arthroscopy of Hip in Treatment of Osteochondritis Dissecans. Arthroscopy Techniques, 2017, 6, e1063-e1068.	1.3	3
120	Ultrasound Assessment of Human Meniscus. Ultrasound in Medicine and Biology, 2017, 43, 1753-1763.	1.5	4
121	Severity of individual obstruction events increases with age in patients with obstructive sleep apnea. Sleep Medicine, 2017, 37, 32-37.	1.6	42
122	Amsterdam positional OSA classification: the AASM 2012 recommended hypopnoea criteria increases the number of positional therapy candidates. Sleep and Breathing, 2017, 21, 411-417.	1.7	11
123	Semiâ€automated International Cartilage Repair Society scoring of equine articular cartilage lesions in optical coherence tomography images. Equine Veterinary Journal, 2017, 49, 552-555.	1.7	3
124	Contrast-Enhanced Computed Tomography Enables Quantitative Evaluation of Tissue Properties at Intrajoint Regions in Cadaveric Knee Cartilage. Cartilage, 2017, 8, 391-399.	2.7	20
125	Vibrational spectroscopy of articular cartilage. Applied Spectroscopy Reviews, 2017, 52, 249-266.	6.7	43
126	Optical spectroscopic characterization of human meniscus biomechanical properties. Journal of Biomedical Optics, 2017, 22, 1.	2.6	7

#	Article	IF	Citations
127	Length of Individual Apnea Events Is Increased by Supine Position and Modulated by Severity of Obstructive Sleep Apnea. Sleep Disorders, 2016, 2016, 1-13.	1.4	31
128	Optical spectroscopic determination of human meniscus composition. Journal of Orthopaedic Research, 2016, 34, 270-278.	2.3	9
129	Assessment of the suitability of using a forehead <scp>EEG</scp> electrode set and chin <scp>EMG</scp> electrodes for sleep staging in polysomnography. Journal of Sleep Research, 2016, 25, 636-645.	3.2	47
130	Effect of porosity, tissue density, and mechanical properties on radial sound speed in human cortical bone. Medical Physics, 2016, 43, 2030-2039.	3.0	15
131	Importance of Patella, Quadriceps Forces, and Depthwise Cartilage Structure on Knee Joint Motion and Cartilage Response During Gait. Journal of Biomechanical Engineering, 2016, 138, .	1.3	33
132	Differences in acoustic impedance of fresh and embedded human trabecular bone samplesâ€"Scanning acoustic microscopy and numerical evaluation. Journal of the Acoustical Society of America, 2016, 140, 1931-1936.	1.1	7
133	Quantitative Evaluation of the Mechanical Risks Caused by Focal Cartilage Defects in the Knee. Scientific Reports, 2016, 6, 37538.	3.3	59
134	Finite difference time domain model of ultrasound propagation in agarose scaffold containing collagen or chondrocytes. Journal of the Acoustical Society of America, 2016, 140, 1-7.	1.1	4
135	RemLogic plug-in enables clinical application of apnea-hypopnea index adjusted for severity of individual obstruction events. Journal of Medical Engineering and Technology, 2016, 40, 119-126.	1.4	12
136	Optimal graft stiffness and pre-strain restore normal joint motion and cartilage responses in ACL reconstructed knee. Journal of Biomechanics, 2016, 49, 2566-2576.	2.1	42
137	Phased-array ultrasound technology enhances accuracy of dual frequency ultrasound measurements – towards improved ultrasound bone diagnostics. Journal of Medical Engineering and Technology, 2016, 40, 293-297.	1.4	2
138	Species-Independent Modeling of High-Frequency Ultrasound Backscatter in Hyaline Cartilage. Ultrasound in Medicine and Biology, 2016, 42, 1375-1384.	1.5	5
139	Menthol concentration in topical cold gel does not have significant effect on skin cooling. Skin Research and Technology, 2016, 22, 40-45.	1.6	15
140	Near Infrared Spectroscopic Mapping of Functional Properties of Equine Articular Cartilage. Annals of Biomedical Engineering, 2016, 44, 3335-3345.	2.5	24
141	The AASM 2012 recommended hypopnea criteria increase the incidence of obstructive sleep apnea but not the proportion of positional obstructive sleep apnea. Sleep Medicine, 2016, 26, 23-29.	1.6	15
142	Optical coherence tomography enables accurate measurement of equine cartilage thickness for determination of speed of sound. Monthly Notices of the Royal Astronomical Society: Letters, 2016, 87, 418-424.	3.3	5
143	Cationic Contrast Agent Diffusion Differs Between Cartilage and Meniscus. Annals of Biomedical Engineering, 2016, 44, 2913-2921.	2.5	17
144	Correlation of Subchondral Bone Density and Structure from Plain Radiographs with Micro Computed Tomography Ex Vivo. Annals of Biomedical Engineering, 2016, 44, 1698-1709.	2.5	19

#	Article	IF	Citations
145	Effect of collagen cross-linking on quantitative MRI parameters of articular cartilage. Osteoarthritis and Cartilage, 2016, 24, 1656-1664.	1.3	5
146	<i>In Vivo</i> Evaluation of the Potential of High-Frequency Ultrasound for Arthroscopic Examination of the Shoulder Joint. Cartilage, 2016, 7, 248-255.	2.7	8
147	Transport of lodine Is Different in Cartilage and Meniscus. Annals of Biomedical Engineering, 2016, 44, 2114-2122.	2.5	9
148	Articular cartilage repair with recombinant human type II collagen/polylactide scaffold in a preliminary porcine study. Journal of Orthopaedic Research, 2016, 34, 745-753.	2.3	28
149	Effect of oxygen desaturation threshold on determination of OSA severity during weight loss. Sleep and Breathing, 2016, 20, 33-42.	1.7	8
150	New method for point-of-care osteoporosis screening and diagnostics. Osteoporosis International, 2016, 27, 971-977.	3.1	43
151	Effect of bone inhomogeneity on tibiofemoral contact mechanics during physiological loading. Journal of Biomechanics, 2016, 49, 1111-1120.	2.1	28
152	Estimation of Systematic and Spatially Correlated Components of Random Signals from Repeated Measurements: Application to Contrast Enhanced Computer Tomography Measurements. SIAM Journal of Scientific Computing, 2016, 38, B77-B99.	2.8	0
153	Inter-individual changes in cortical bone three-dimensional microstructure and elastic coefficient have opposite effects on radial sound speed. Journal of the Acoustical Society of America, 2015, 138, 3491-3499.	1.1	4
154	Diagnosis of Knee Osteochondral Lesions With Ultrasound Imaging. Arthroscopy Techniques, 2015, 4, e429-e433.	1.3	15
155	Relationships between tissue composition and viscoelastic properties in human trabecular bone. Journal of Biomechanics, 2015, 48, 269-275.	2.1	26
156	Characterization of site-specific biomechanical properties of human meniscusâ€"Importance of collagen and fluid on mechanical nonlinearities. Journal of Biomechanics, 2015, 48, 1499-1507.	2.1	80
157	Estimation of articular cartilage properties using multivariate analysis of optical coherence tomography signal. Osteoarthritis and Cartilage, 2015, 23, 2206-2213.	1.3	15
158	Ultrasound Backscattering Is Anisotropic in Bovine Articular Cartilage. Ultrasound in Medicine and Biology, 2015, 41, 1958-1966.	1.5	6
159	A Handy EEG Electrode Set for patients suffering from altered mental state. Journal of Clinical Monitoring and Computing, 2015, 29, 697-705.	1.6	9
160	Morbidity and mortality risk ratios are elevated in severe supine dominant OSA: a long-term follow-up study. Sleep and Breathing, 2015, 19, 653-660.	1.7	12
161	Amount of weight loss or gain influences the severity of respiratory events in sleep apnea. Medical and Biological Engineering and Computing, 2015, 53, 975-988.	2.8	17
162	Effect of different oxygen desaturation threshold levels on hypopnea scoring and classification of severity of sleep apnea. Sleep and Breathing, 2015, 19, 947-954.	1.7	16

#	Article	IF	CITATIONS
163	Quantitative Evaluation of Knee Subchondral Bone Mineral Density Using Cone Beam Computed Tomography. IEEE Transactions on Medical Imaging, 2015, 34, 2186-2190.	8.9	17
164	Contrast enhanced imaging of human meniscus using cone beam CT. Osteoarthritis and Cartilage, 2015, 23, 1367-1376.	1.3	14
165	Optical absorption spectra of human articular cartilage correlate with biomechanical properties, histological score and biochemical composition. Physiological Measurement, 2015, 36, 1913-1928.	2.1	29
166	Forehead EEG electrode set versus full-head scalp EEG in 100 patients with altered mental state. Epilepsy and Behavior, 2015, 49, 245-249.	1.7	28
167	Weight loss alters severity of individual nocturnal respiratory events depending on sleeping position. Physiological Measurement, 2014, 35, 2037-2052.	2.1	10
168	Importance of Material Properties and Porosity of Bone on Mechanical Response of Articular Cartilage in Human Knee Joint—A Two-Dimensional Finite Element Study. Journal of Biomechanical Engineering, 2014, 136, 121005.	1.3	21
169	Estimation of fixed charge density and diffusivity profiles in cartilage using contrast enhanced computer tomography. International Journal for Numerical Methods in Engineering, 2014, 98, 371-390.	2.8	9
170	In vivo diagnostics of human knee cartilage lesions using delayed CBCT arthrography. Journal of Orthopaedic Research, 2014, 32, 403-412.	2.3	52
171	Assessment of myocardial perfusion with MRI using a modified dual bolus method. Physiological Measurement, 2014, 35, 533-547.	2.1	2
172	Effects of Freeze–Thaw Cycle with and without Proteolysis Inhibitors and Cryopreservant on the Biochemical and Biomechanical Properties of Articular Cartilage. Cartilage, 2014, 5, 97-106.	2.7	20
173	Dependence of light attenuation and backscattering on collagen concentration and chondrocyte density in agarose scaffolds. Physics in Medicine and Biology, 2014, 59, 6537-6548.	3.0	5
174	Adjustment of apnea-hypopnea index with severity of obstruction events enhances detection of sleep apnea patients with the highest risk of severe health consequences. Sleep and Breathing, 2014, 18, 641-647.	1.7	54
175	Application of optical coherence tomography enhances reproducibility of arthroscopic evaluation of equine joints. Acta Veterinaria Scandinavica, 2014, 56, 3.	1.6	12
176	Shielded Design of Screen-Printed EEG Electrode Set Reduces Interference Pick-Up. IEEE Sensors Journal, 2014, 14, 2692-2697.	4.7	5
177	Collagen and Chondrocyte Concentrations Control Ultrasound Scattering in Agarose Scaffolds. Ultrasound in Medicine and Biology, 2014, 40, 2162-2171.	1.5	9
178	Ultrasound Arthroscopy of Human Knee Cartilage and Subchondral Bone inÂVivo. Ultrasound in Medicine and Biology, 2014, 40, 2039-2047.	1.5	32
179	Deformation of articular cartilage during static loading of a knee joint – Experimental and finite element analysis. Journal of Biomechanics, 2014, 47, 2467-2474.	2.1	92
180	Ultrasound backscatter measurements of intact human proximal femursâ€"Relationships of ultrasound parameters with tissue structure and mineral density. Bone, 2014, 64, 240-245.	2.9	30

#	Article	IF	Citations
181	Screen-printed EEG electrode set for emergency use. Sensors and Actuators A: Physical, 2014, 213, 19-26.	4.1	36
182	Novel parameters indicate significant differences in severity of obstructive sleep apnea with patients having similar apnea–hypopnea index. Medical and Biological Engineering and Computing, 2013, 51, 697-708.	2.8	96
183	Mortality in middle-aged men with obstructive sleep apnea in Finland. Sleep and Breathing, 2013, 17, 1047-1053.	1.7	21
184	The severity of individual obstruction events is related to increased mortality rate in severe obstructive sleep apnea. Journal of Sleep Research, 2013, 22, 663-669.	3.2	75
185	InÂvivo comparison of delayed gadolinium-enhanced MRI of cartilage and delayed quantitative CT arthrography in imaging of articular cartilage. Osteoarthritis and Cartilage, 2013, 21, 434-442.	1.3	39
186	Diffusion of ionic and non-ionic contrast agents in articular cartilage with increased cross-linkingâ€"Contribution of steric and electrostatic effects. Medical Engineering and Physics, 2013, 35, 1415-1420.	1.7	23
187	Repair of osteochondral defects with recombinant human type II collagen gel and autologous chondrocytes in rabbit. Osteoarthritis and Cartilage, 2013, 21, 481-490.	1.3	39
188	Arthroscopic optical coherence tomography provides detailed information on articular cartilage lesions in horses. Veterinary Journal, 2013, 197, 589-595.	1.7	27
189	Arthroscopic Ultrasound Technique for Simultaneous Quantitative Assessment of Articular Cartilage and Subchondral Bone: An InÂVitro and InÂVivo Feasibility Study. Ultrasound in Medicine and Biology, 2013, 39, 1460-1468.	1.5	28
190	New disposable forehead electrode set with excellent signal quality and imaging compatibility. Journal of Neuroscience Methods, 2013, 215, 103-109.	2.5	24
191	Longitudinal elastic properties and porosity of cortical bone tissue vary with age in human proximal femur. Bone, 2013, 53, 451-458.	2.9	78
192	Importance of depth-wise distribution of collagen and proteoglycans in articular cartilageâ€"A 3D finite element study of stresses and strains in human knee joint. Journal of Biomechanics, 2013, 46, 1184-1192.	2.1	80
193	Novel parameters reflect changes in morphology of respiratory events during weight loss. Physiological Measurement, 2013, 34, 1013-1026.	2.1	15
194	Bath Concentration of Anionic Contrast Agents Does Not Affect Their Diffusion and Distribution in Articular Cartilage <i>In Vitro</i> . Cartilage, 2013, 4, 42-51.	2.7	24
195	Novel screen printed electrode set for routine EEG recordings in patients with altered mental status. , 2013, 2013, 6724-7.		3
196	Contrast-Enhanced Micro–Computed Tomography in Evaluation of Spontaneous Repair of Equine Cartilage. Cartilage, 2012, 3, 235-244.	2.7	11
197	Delayed Computed Tomography Arthrography of Human Knee Cartilage <i>In Vivo</i> . Cartilage, 2012, 3, 334-341.	2.7	36
198	Nondestructive fluorescence-based quantification of threose-induced collagen cross-linking in bovine articular cartilage. Journal of Biomedical Optics, 2012, 17, 0970031.	2.6	13

#	Article	IF	Citations
199	Hyperosmolaric contrast agents in cartilage tomography may expose cartilage to overload-induced cell death. Journal of Biomechanics, 2012, 45, 497-503.	2.1	18
200	Comparison of ultrasound and optical coherence tomography techniques for evaluation of integrity of spontaneously repaired horse cartilage. Journal of Medical Engineering and Technology, 2012, 36, 185-192.	1.4	34
201	Multi-site bone ultrasound measurements in elderly women with and without previous hip fractures. Osteoporosis International, 2012, 23, 1287-1295.	3.1	72
202	Diffusion of Gd-DTPA2â^' into articular cartilage. Osteoarthritis and Cartilage, 2012, 20, 117-126.	1.3	39
203	Ultrasonic evaluation of acute impact injury of articular cartilage inÂvitro. Osteoarthritis and Cartilage, 2012, 20, 719-726.	1.3	14
204	Ultrasound evaluation of mechanical injury of bovine knee articular cartilage under arthroscopic control. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 148-155.	3.0	26
205	Effects of non-optimal focusing on dual-frequency ultrasound measurements of bone. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 1182-1188.	3.0	5
206	Ultrasound speed varies in articular cartilage under indentation loading [Coresspondence]. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 2772-2780.	3.0	6
207	Detection of mechanical injury of articular cartilage using contrast enhanced computed tomography. Osteoarthritis and Cartilage, 2011, 19, 295-301.	1.3	65
208	Computed tomography detects changes in contrast agent diffusion after collagen cross-linking typical to natural aging of articular cartilage. Osteoarthritis and Cartilage, 2011, 19, 1190-1198.	1.3	46
209	Alterations in structure and properties of collagen network of osteoarthritic and repaired cartilage modify knee joint stresses. Biomechanics and Modeling in Mechanobiology, 2011, 10, 357-369.	2.8	56
210	Structural parameters of normal and osteoporotic human trabecular bone are affected differently by microCT image resolution. Osteoporosis International, 2011, 22, 167-177.	3.1	46
211	Effects of optical beam angle on quantitative optical coherence tomography (OCT) in normal and surface degenerated bovine articular cartilage. Physics in Medicine and Biology, 2011, 56, 491-509.	3.0	13
212	Arthroscopic Ultrasound Assessment of Articular Cartilage in the Human Knee Joint. Cartilage, 2011, 2, 246-253.	2.7	35
213	Technical and practical improvements in arthroscopic indentation technique for diagnostics of articular cartilage softening. Journal of Medical Engineering and Technology, 2011, 35, 40-46.	1.4	7
214	Linear Acoustics of Trabecular Bone. , 2011, , 265-289.		5
215	Simultaneous ultrasound measurement of articular cartilage and subchondral bone. Osteoarthritis and Cartilage, 2010, 18, 1570-1576.	1.3	28
216	Diffusion coefficients of articular cartilage for different CT and MRI contrast agents. Medical Engineering and Physics, 2010, 32, 878-882.	1.7	51

#	Article	IF	Citations
217	Quantitative Evaluation of Spontaneously and Surgically Repaired Rabbit Articular Cartilage Using Intra-Articular Ultrasound Method in situ. Ultrasound in Medicine and Biology, 2010, 36, 833-839.	1.5	33
218	Numerical Analysis of Uncertainties in Dual Frequency Bone Ultrasound Technique. Ultrasound in Medicine and Biology, 2010, 36, 288-294.	1.5	10
219	2-D finite difference time domain model of ultrasound reflection from normal and osteoarthritic human articular cartilage surface. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 892-899.	3.0	5
220	Diffusion and near-equilibrium distribution of MRI and CT contrast agents in articular cartilage. Physics in Medicine and Biology, 2009, 54, 6823-6836.	3.0	61
221	Contrast agent-enhanced computed tomography of articular cartilage: Association with tissue composition and properties. Acta Radiologica, 2009, 50, 78-85.	1.1	65
222	pQCT study on diffusion and equilibrium distribution of iodinated anionic contrast agent in human articular cartilage $\hat{a} \in \text{``associations to matrix composition and integrity. Osteoarthritis and Cartilage, 2009, 17, 26-32.}$	1.3	76
223	Simultaneous computed tomography of articular cartilage and subchondral bone. Osteoarthritis and Cartilage, 2009, 17, 1583-1588.	1.3	40
224	Fabrication and testing of polyimide-based microelectrode arrays for cortical mapping of evoked potentials. Biosensors and Bioelectronics, 2009, 24, 3067-3072.	10.1	36
225	Design, construction and evaluation of an ambulatory device for screening of sleep apnea. Medical and Biological Engineering and Computing, 2009, 47, 59-66.	2.8	12
226	Effect of Bone Marrow on Acoustic Properties of Trabecular Bone - 3D Finite Difference Modeling Study. Ultrasound in Medicine and Biology, 2009, 35, 308-318.	1.5	31
227	Strain-Dependent Modulation of Ultrasound Speed in Articular Cartilage Under Dynamic Compression. Ultrasound in Medicine and Biology, 2009, 35, 1177-1184.	1.5	12
228	Differences in Acoustic Properties of Intact and Degenerated Human Patellar Cartilage During Compression. Ultrasound in Medicine and Biology, 2009, 35, 1367-1375.	1.5	11
229	Effects of Ultrasound Beam Angle and Surface Roughness on the Quantitative Ultrasound Parameters of Articular Cartilage. Ultrasound in Medicine and Biology, 2009, 35, 1344-1351.	1.5	24
230	Ultrasound Backscatter Imaging Provides Frequency-Dependent Information on Structure, Composition and Mechanical Properties of Human Trabecular Bone. Ultrasound in Medicine and Biology, 2009, 35, 1376-1384.	1.5	75
231	Minimally Invasive Ultrasound Method for Intra-Articular Diagnostics of Cartilage Degeneration. Ultrasound in Medicine and Biology, 2009, 35, 1546-1554.	1.5	50
232	Evaluation of a Novel Ambulatory Device for Screening of Sleep Apnea. Telemedicine Journal and E-Health, 2009, 15, 283-289.	2.8	30
233	Effects of ultrasound frequency, temporal sampling frequency, and spatial sampling step on the quantitative ultrasound parameters of articular cartilage. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 1383-1393.	3.0	9
234	In-Vitro Comparison of Time-Domain, Frequency-Domain and Wavelet Ultrasound Parameters in Diagnostics of Cartilage Degeneration. Ultrasound in Medicine and Biology, 2008, 34, 155-159.	1.5	23

#	Article	IF	CITATIONS
235	Dual-Frequency Ultrasoundâ€"New Pulseâ€"Echo Technique for Bone Densitometry. Ultrasound in Medicine and Biology, 2008, 34, 1703-1708.	1.5	31
236	The zonal architecture of human articular cartilage described by T2 relaxation time in the presence of Gd-DTPA2â^'. Magnetic Resonance Imaging, 2008, 26, 602-607.	1.8	30
237	A portable device for intensive care brain function monitoring with event-related potentials. Computer Methods and Programs in Biomedicine, 2008, 89, 83-92.	4.7	2
238	Indentation diagnostics of cartilage degeneration. Osteoarthritis and Cartilage, 2008, 16, 796-804.	1.3	86
239	Dual-frequency ultrasound technique minimizes errors induced by soft tissue in ultrasound bone densitometry. Acta Radiologica, 2008, 49, 1038-1041.	1.1	26
240	Ultrasonic assessment of cortical bone thickness in vitro and in vivo. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2008, 55, 2191-2197.	3.0	39
241	Contrast agent enhanced pQCT of articular cartilage. Physics in Medicine and Biology, 2007, 52, 1209-1219.	3.0	74
242	Spatial variation of acoustic properties is related with mechanical properties of trabecular bone. Physics in Medicine and Biology, 2007, 52, 6961-6968.	3.0	34
243	Human Articular Cartilage Proteoglycans Are Not Undersulfated in Osteoarthritis. Connective Tissue Research, 2007, 48, 27-33.	2.3	10
244	Quantitative Information From Ultrasound Evaluation of Articular Cartilage Should Be Interpreted With Care. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2007, 23, 1137-1138.	2.7	5
245	Acoustic Properties of Trabecular Boneâ€"Relationships to Tissue Composition. Ultrasound in Medicine and Biology, 2007, 33, 1438-1444.	1.5	38
246	Ultrasound Speed in Articular Cartilage Under Mechanical Compression. Ultrasound in Medicine and Biology, 2007, 33, 1755-1766.	1.5	30
247	Estimation of mechanical properties of articular cartilage with MRI $\hat{a} \in \text{``dGEMRIC}$ , T2 and T1 imaging in different species with variable stages of maturation. Osteoarthritis and Cartilage, 2007, 15, 1141-1148.	1.3	80
248	Quantitative MRI of parallel changes of articular cartilage and underlying trabecular bone in degeneration. Osteoarthritis and Cartilage, 2007, 15, 1149-1157.	1.3	42
249	Effect of human trabecular bone composition on its electrical properties. Medical Engineering and Physics, 2007, 29, 845-852.	1.7	40
250	Comparison of novel clinically applicable methodology for sensitive diagnostics of cartilage degeneration., 2007, 13, 46-55.		39
251	Ultrasonic characterization of human trabecular bone microstructure. Physics in Medicine and Biology, 2006, 51, 1633-1648.	3.0	85
252	Influence of overlying soft tissues on trabecular bone acoustic measurement at various ultrasound frequencies. Ultrasound in Medicine and Biology, 2006, 32, 1073-1083.	1.5	43

#	Article	IF	Citations
253	Quantitative ultrasound imaging of spontaneous repair of porcine cartilage. Osteoarthritis and Cartilage, 2006, 14, 258-263.	1.3	36
254	T2 relaxation time mapping reveals age- and species-related diversity of collagen network architecture in articular cartilage. Osteoarthritis and Cartilage, 2006, 14, 1265-1271.	1.3	100
255	Collagen network primarily controls Poisson's ratio of bovine articular cartilage in compression. Journal of Orthopaedic Research, 2006, 24, 690-699.	2.3	126
256	Interrelationships between electrical properties and microstructure of human trabecular bone. Physics in Medicine and Biology, 2006, 51, 5289-5303.	3.0	34
257	Quantitative ultrasound imaging detects degenerative changes in articular cartilage surface and subchondral bone. Physics in Medicine and Biology, 2006, 51, 5333-5346.	3.0	79
258	Acoustic properties of articular cartilage under mechanical stress. Biorheology, 2006, 43, 523-35.	0.4	13
259	Improvement of arthroscopic cartilage stiffness probe using amorphous diamond coating. , 2005, 73B, 15-22.		9
260	Prediction of density and mechanical properties of human trabecular bonein vitroby using ultrasound transmission and backscattering measurements at 0.2–6.7 MHz frequency range. Physics in Medicine and Biology, 2005, 50, 1629-1642.	3.0	86
261	Site-specific ultrasound reflection properties and superficial collagen content of bovine knee articular cartilage. Physics in Medicine and Biology, 2005, 50, 3221-3233.	3.0	30
262	Prediction of mechanical properties of human trabecular bone by electrical measurements. Physiological Measurement, 2005, 26, S119-S131.	2.1	48
263	Ability of ultrasound backscattering to predict mechanical properties of bovine trabecular bone. Ultrasound in Medicine and Biology, 2004, 30, 919-927.	1.5	75
264	Proteoglycan and collagen sensitive MRI evaluation of normal and degenerated articular cartilage. Journal of Orthopaedic Research, 2004, 22, 557-564.	2.3	147
265	Ultrasound attenuation in normal and spontaneously degenerated articular cartilage. Ultrasound in Medicine and Biology, 2004, 30, 493-500.	1.5	71
266	Ultrasonic quantitation of superficial degradation of articular cartilage. Ultrasound in Medicine and Biology, 2004, 30, 783-792.	1.5	105
267	Prediction of biomechanical properties of articular cartilage with quantitative magnetic resonance imaging. Journal of Biomechanics, 2004, 37, 321-328.	2.1	123
268	Mechano-acoustic determination of Young's modulus of articular cartilage. Biorheology, 2004, 41, 167-79.	0.4	18
269	Undersulfated chondroitin sulfate does not increase in osteoarthritic cartilage. Journal of Rheumatology, 2004, 31, 2449-53.	2.0	8
270	Ultrasound indentation of normal and spontaneously degenerated bovine articular cartilage. Osteoarthritis and Cartilage, 2003, 11, 697-705.	1.3	70

#	Article	IF	Citations
271	Speed of sound in normal and degenerated bovine articular cartilage. Ultrasound in Medicine and Biology, 2003, 29, 447-454.	1.5	104
272	Fibril reinforced poroelastic model predicts specifically mechanical behavior of normal, proteoglycan depleted and collagen degraded articular cartilage. Journal of Biomechanics, 2003, 36, 1373-1379.	2.1	243
273	Ultrasound indentation of bovine knee articular cartilage in situ. Journal of Biomechanics, 2003, 36, 1259-1267.	2.1	47
274	Structure-Function Relationships in Enzymatically Modified Articular Cartilage. Cells Tissues Organs, 2003, 175, 121-132.	2.3	117
275	Dual energy x-ray laser measurement of calcaneal bone mineral density. Physics in Medicine and Biology, 2003, 48, 1741-1752.	3.0	35
276	Electrical and dielectric properties of bovine trabecular boneÂrelationships with mechanical properties and mineral density. Physics in Medicine and Biology, 2003, 48, 775-786.	3.0	48
277	Experimental and numerical validation for the novel configuration of an arthroscopic indentation instrument. Physics in Medicine and Biology, 2003, 48, 1565-1576.	3.0	25
278	MECHANO-ACOUSTIC DIAGNOSIS OF CARTILAGE DEGENERATION AND REPAIR. Journal of Bone and Joint Surgery - Series A, 2003, 85, 78-84.	3.0	33
279	Novel mechano-acoustic technique and instrument for diagnosis of cartilage degeneration. Physiological Measurement, 2002, 23, 491-503.	2.1	103
280	Bone mineral density, ultrasound velocity, and broadband attenuation predict mechanical properties of trabecular bone differently. Bone, 2002, 31, 503-507.	2.9	87
281	Spatial assessment of articular cartilage proteoglycans with Gd-DTPA-enhancedT1imaging. Magnetic Resonance in Medicine, 2002, 48, 640-648.	3.0	139
282	Real-time ultrasound analysis of articular cartilage degradation in vitro. Ultrasound in Medicine and Biology, 2002, 28, 519-525.	1.5	91
283	Comparison of the equilibrium response of articular cartilage in unconfined compression, confined compression and indentation. Journal of Biomechanics, 2002, 35, 903-909.	2.1	375
284	T2relaxation reveals spatial collagen architecture in articular cartilage: A comparative quantitative MRI and polarized light microscopic study. Magnetic Resonance in Medicine, 2001, 46, 487-493.	3.0	392
285	Estimation of the Young's modulus of articular cartilage using an arthroscopic indentation instrument and ultrasonic measurement of tissue thickness. Journal of Biomechanics, 2001, 34, 251-256.	2.1	123
286	Inactivation of one allele of the type II collagen gene alters the collagen network in murine articular cartilage and makes cartilage softer. Annals of the Rheumatic Diseases, 2001, 60, 262-268.	0.9	46
287	Quantitative MR microscopy of enzymatically degraded articular cartilage. Magnetic Resonance in Medicine, 2000, 43, 676-681.	3.0	201
288	Optimization of the arthroscopic indentation instrument for the measurement of thin cartilage stiffness. Physics in Medicine and Biology, 1999, 44, 2511-2524.	3.0	50

## Juha TöyrÃ**\$**

#	Article	IF	CITATIONS
289	Characterization of enzymatically induced degradation of articular cartilage using high frequency ultrasound. Physics in Medicine and Biology, 1999, 44, 2723-2733.	3.0	143
290	Bone properties as estimated by mineral density, ultrasound attenuation, and velocity. Bone, 1999, 25, 725-731.	2.9	50
291	Assessment of Ligament Viscoelastic Properties Using Raman Spectroscopy. Annals of Biomedical Engineering, 0, , .	2.5	0