Greet Kerckhofs

List of Publications by Year
in descending order

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66 papers	3,742 citations	186209 28 h-index	133188 59 g-index
68 all docs	68 docs citations	68 times ranked	4454 citing authors

#	Article	IF	Citations
1	The effect of pore geometry on the in vitro biological behavior of human periosteum-derived cells seeded on selective laser-melted Ti6Al4V bone scaffolds. Acta Biomaterialia, 2012, 8, 2824-2834.	4.1	594
2	Micro-CT-based improvement of geometrical and mechanical controllability of selective laser melted Ti6Al4V porous structures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 7423-7431.	2.6	364
3	Surface Modification of Ti6Al4V Open Porous Structures Produced by Additive Manufacturing. Advanced Engineering Materials, 2012, 14, 363-370.	1.6	219
4	The role of sugar and fat in sugar-snap cookies: Structural and textural properties. Journal of Food Engineering, 2009, 90, 400-408.	2.7	198
5	Three-dimensional pore space quantification of apple tissue using X-ray computed microtomography. Planta, 2007, 226, 559-570.	1.6	189
6	Three-Dimensional Gas Exchange Pathways in Pome Fruit Characterized by Synchrotron X-Ray Computed Tomography Â Â Â. Plant Physiology, 2008, 147, 518-527.	2.3	187
7	Surface Roughness and Morphology Customization of Additive Manufactured Open Porous Ti6Al4V Structures. Materials, 2013, 6, 4737-4757.	1.3	184
8	Prediction of permeability of regular scaffolds for skeletal tissue engineering: A combined computational and experimental study. Acta Biomaterialia, 2012, 8, 1648-1658.	4.1	166
9	The Impact of Type 2 Diabetes on Bone Fracture Healing. Frontiers in Endocrinology, 2018, 9, 6.	1.5	109
10	Mechanisms of ectopic bone formation by human osteoprogenitor cells on CaP biomaterial carriers. Biomaterials, 2012, 33, 3127-3142.	5.7	103
11	The combined bone forming capacity of human periosteal derived cells and calcium phosphates. Biomaterials, 2011, 32, 4393-4405.	5.7	100
12	Highâ€Resolution Microfocus Xâ€Ray Computed Tomography for 3D Surface Roughness Measurements of Additive Manufactured Porous Materials. Advanced Engineering Materials, 2013, 15, 153-158.	1.6	82
13	Multifractal properties of pore-size distribution in apple tissue using X-ray imaging. Journal of Food Engineering, 2010, 99, 206-215.	2.7	81
14	Validation of x-ray microfocus computed tomography as an imaging tool for porous structures. Review of Scientific Instruments, 2008, 79, 013711.	0.6	79
15	Simultaneous three-dimensional visualization of mineralized and soft skeletal tissues by a novel microCT contrast agent with polyoxometalate structure. Biomaterials, 2018, 159, 1-12.	5.7	70
16	Ectopic bone formation by 3D porous calcium phosphate-Ti6Al4V hybrids produced by perfusion electrodeposition. Biomaterials, 2012, 33, 4044-4058.	5.7	64
17	Contrast-Enhanced MicroCT for Virtual 3D Anatomical Pathology of Biological Tissues: A Literature Review. Contrast Media and Molecular Imaging, 2019, 2019, 1-9.	0.4	60
18	Contrast-enhanced nanofocus computed tomography images the cartilage subtissue architecture in three dimensions. , 2013, 25, 179-189.		58

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19	Reporting Guidelines, Review of Methodological Standards, and Challenges Toward Harmonization in Bone Marrow Adiposity Research. Report of the Methodologies Working Group of the International Bone Marrow Adiposity Society. Frontiers in Endocrinology, 2020, 11, 65.	1.5	53
20	A novel multimodular methodology to investigate external cervical tooth resorption. International Endodontic Journal, 2016, 49, 287-300.	2.3	48
21	High-resolution contrast-enhanced microCT reveals the true three-dimensional morphology of the murine placenta. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13927-13936.	3.3	47
22	Three-Dimensional Characterization of Tissue-Engineered Constructs by Contrast-Enhanced Nanofocus Computed Tomography. Tissue Engineering - Part C: Methods, 2014, 20, 177-187.	1.1	46
23	Human pluripotent stem cell-derived cartilaginous organoids promote scaffold-free healing of critical size long bone defects. Stem Cell Research and Therapy, 2021, 12, 513.	2.4	37
24	Characterization of the porous structure of biodegradable scaffolds obtained with supercritical CO2 as foaming agent. Journal of Porous Materials, 2008, 15, 397-403.	1.3	33
25	Contrast-Enhanced Nanofocus X-Ray Computed Tomography Allows Virtual Three-Dimensional Histopathology and Morphometric Analysis of Osteoarthritis in Small Animal Models. Cartilage, 2014, 5, 55-65.	1.4	33
26	Changes in bone macro- and microstructure in diabetic obese mice revealed by high resolution microfocus X-ray computed tomography. Scientific Reports, 2016, 6, 35517.	1.6	33
27	Spatial optimization in perfusion bioreactors improves bone tissueâ€engineered construct quality attributes. Biotechnology and Bioengineering, 2014, 111, 2560-2570.	1.7	32
28	Combining microCT-based characterization with empirical modelling as a robust screening approach for the design of optimized CaP-containing scaffolds for progenitor cell-mediated bone formation. Acta Biomaterialia, 2016, 35, 330-340.	4.1	31
29	Engineering 3D parallelized microfluidic droplet generators with equal flow profiles by computational fluid dynamics and stereolithographic printing. Lab on A Chip, 2020, 20, 490-495.	3.1	31
30	The effect of spatial micro-CT image resolution and surface complexity on the morphological 3D analysis of open porous structures. Materials Characterization, 2014, 87, 104-115.	1.9	30
31	Human periosteal-derived cell expansion in a perfusion bioreactor system: proliferation, differentiation and extracellular matrix formation. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 519-530.	1.3	25
32	Deciphering the combined effect of bone morphogenetic protein 6 and calcium phosphate on bone formation capacity of periosteum derived cell-based tissue engineering constructs. Acta Biomaterialia, 2018, 80, 97-107.	4.1	25
33	Exploring polyoxometalates as non-destructive staining agents for contrast-enhanced microfocus computed tomography of biological tissues. Acta Biomaterialia, 2020, 105, 253-262.	4.1	25
34	Fluorescent oxygen sensitive microbead incorporation for measuring oxygen tension in cell aggregates. Biomaterials, 2013, 34, 922-929.	5.7	24
35	Unraveling the compromised biomechanical performance of type 2 diabetes- and Roux-en-Y gastric bypass bone by linking mechanical-structural and physico-chemical properties. Scientific Reports, 2018, 8, 5881.	1.6	23
36	Ovariectomy increases RANKL protein expression in bone marrow adipocytes of C3H/HeJ mice. American Journal of Physiology - Endocrinology and Metabolism, 2019, 317, E1050-E1054.	1.8	21

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37	Baking Gradients Cause Heterogeneity in Starch and Proteins in Pound Cake. Cereal Chemistry, 2010, 87, 475-480.	1.1	20
38	Validation of a finite element model of a unilateral external fixator in a rabbit tibia defect model. Medical Engineering and Physics, 2013, 35, 1037-1043.	0.8	18
39	Computational modelling of local calcium ions release from calcium phosphate-based scaffolds. Biomechanics and Modeling in Mechanobiology, 2017, 16, 425-438.	1.4	17
40	Influence of induced infection in medication-related osteonecrosis ofÂthe jaw development after tooth extraction: A study in rats. Journal of Cranio-Maxillo-Facial Surgery, 2019, 47, 349-356.	0.7	17
41	Mandibular bone is protected against microarchitectural alterations and bone marrow adipose conversion in ovariectomized rats. Bone, 2019, 127, 343-352.	1.4	16
42	A Novel microCT Method for Bone and Marrow Adipose Tissue Alignment Identifies Key Differences Between Mandible and Tibia in Rats. Calcified Tissue International, 2018, 103, 189-197.	1.5	15
43	The effect of PPARÎ³ inhibition on bone marrow adipose tissue and bone in C3H/HeJ mice. American Journal of Physiology - Endocrinology and Metabolism, 2019, 316, E96-E105.	1.8	15
44	Impaired Bone Fracture Healing in Type 2 Diabetes Is Caused by Defective Functions of Skeletal Progenitor Cells. Stem Cells, 2022, 40, 149-164.	1.4	15
45	Fostering crack deviation via local internal stresses in Al/NiTi composites and its correlation with fracture toughness. Composites Part A: Applied Science and Manufacturing, 2019, 126, 105617.	3.8	13
46	Suramin increases cartilage proteoglycan accumulation in vitro and protects against joint damage triggered by papain injection in mouse knees in vivo. RMD Open, 2017, 3, e000604.	1.8	11
47	Multifactorial Optimization of Contrast-Enhanced Nanofocus Computed Tomography for Quantitative Analysis of Neo-Tissue Formation in Tissue Engineering Constructs. PLoS ONE, 2015, 10, e0130227.	1.1	10
48	A Review of Ex Vivo X-ray Microfocus Computed Tomography-Based Characterization of the Cardiovascular System. International Journal of Molecular Sciences, 2021, 22, 3263.	1.8	10
49	On-line analysis of cracking in cortical bone under wedge penetration. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2012, 226, 709-717.	1.0	9
50	T1-weighted MRI images accurately represent the volume and surface of architectural mineral damage of osteonecrosis of the femoral head: Comparison with high-resolution computed tomography. Bone, 2020, 130, 115099.	1.4	7
51	Subchondral involvement in osteonecrosis of the femoral head: insight on local composition, microstructure and vascularization. Osteoarthritis and Cartilage, 2022, 30, 1103-1115.	0.6	7
52	The porous structure of biodegradable scaffolds obtained with supercritical CO2 as foaming agent. Studies in Surface Science and Catalysis, 2007, 160, 681-688.	1.5	5
53	Liquid detection in confined aircraft structures based on lyotropic percolation thresholds. Sensors and Actuators B: Chemical, 2012, 161, 791-798.	4.0	5
54	A simulation-based study on the influence of the x-ray spectrum on the performance of multi-material beam hardening correction algorithms. Measurement Science and Technology, 2018, 29, 095002.	1.4	5

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55	Reporter cell activity within hydrogel constructs quantified from oxygen-independent bioluminescence. Biomaterials, 2014, 35, 8065-8077.	5.7	4
56	Applications of CT for Non-destructive Testing and Materials Characterization. , 2018, , 267-331.		4
57	Impaired soft and hard callus formation during fracture healing in diet-induced obese mice as revealed by 3D contrast-enhanced computed tomography imaging. Bone, 2021, 150, 116008.	1.4	4
58	Alteration of the Condylar Oral Bone in Obese and Gastric Bypass Mice. Calcified Tissue International, 2020, 107, 371-380.	1.5	3
59	Deep Learning-Based Segmentation of Mineralized Cartilage and Bone in High-Resolution Micro-CT Images. Lecture Notes in Computational Vision and Biomechanics, 2020, , 158-170.	0.5	3
60	Brief Report From the 4th International Meeting on Bone Marrow Adiposity (BMA2018). Frontiers in Endocrinology, 2019, 10, 691.	1.5	2
61	Morphological Analysis of Slipâ€Cast Emulsionâ€Templated Alumina Foams by Microfocus Computer Tomography. Journal of the American Ceramic Society, 2010, 93, 3921-3928.	1.9	1
62	Micro computed tomography with and without contrast enhancement for the characterization of microcarriers in dry and wet state. Scientific Reports, 2021, 11, 2819.	1.6	1
63	Fruit Microstructure Evaluation Using Synchrotron X-Ray Computed Tomography. Food Engineering Series, 2010, , 589-598.	0.3	1
64	Multiscale Modelling of Gas Transport in Pome Fruit A paper from the State-of-the-Art in Application of Finite Element Numerical Solutions to Engineering Problems: A Session Honoring Pioneering Contributions of Professor Kamyar Haghighi of Purdue Universi. , 2009, , .		0
65	Suramin protects against osteoarthritis by increasing tissue inhibitor of matrix metalloproteinase-3 and glycosaminoglycans in the articular cartilage. Osteoarthritis and Cartilage, 2017, 25, S145-S146.	0.6	0
66	04.04â€…Suramin protects against osteoarthritis by increasing tissue inhibitor of matrix metalloproteinase-3 and glycosaminoglycans in the articular cartilage. , 2017, , .		0