

# 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	Impaired Bone Fracture Healing in Type 2 Diabetes Is Caused by Defective Functions of Skeletal Progenitor Cells. <i>Stem Cells</i> , 2022, 40, 149-164.	1.4	15
2	Subchondral involvement in osteonecrosis of the femoral head: insight on local composition, microstructure and vascularization. <i>Osteoarthritis and Cartilage</i> , 2022, 30, 1103-1115.	0.6	7
3	Micro computed tomography with and without contrast enhancement for the characterization of microcarriers in dry and wet state. <i>Scientific Reports</i> , 2021, 11, 2819.	1.6	1
4	A Review of Ex Vivo X-ray Microfocus Computed Tomography-Based Characterization of the Cardiovascular System. <i>International Journal of Molecular Sciences</i> , 2021, 22, 3263.	1.8	10
5	Human pluripotent stem cell-derived cartilaginous organoids promote scaffold-free healing of critical size long bone defects. <i>Stem Cell Research and Therapy</i> , 2021, 12, 513.	2.4	37
6	Impaired soft and hard callus formation during fracture healing in diet-induced obese mice as revealed by 3D contrast-enhanced computed tomography imaging. <i>Bone</i> , 2021, 150, 116008.	1.4	4
7	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. <i>Bone</i> , 2020, 130, 115099.	1.4	7
8	Engineering 3D parallelized microfluidic droplet generators with equal flow profiles by computational fluid dynamics and stereolithographic printing. <i>Lab on A Chip</i> , 2020, 20, 490-495.	3.1	31
9	Alteration of the Condylar Oral Bone in Obese and Gastric Bypass Mice. <i>Calcified Tissue International</i> , 2020, 107, 371-380.	1.5	3
10	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. <i>Frontiers in Endocrinology</i> , 2020, 11, 65.	1.5	53
11	Exploring polyoxometalates as non-destructive staining agents for contrast-enhanced microfocus computed tomography of biological tissues. <i>Acta Biomaterialia</i> , 2020, 105, 253-262.	4.1	25
12	Deep Learning-Based Segmentation of Mineralized Cartilage and Bone in High-Resolution Micro-CT Images. <i>Lecture Notes in Computational Vision and Biomechanics</i> , 2020, , 158-170.	0.5	3
13	Mandibular bone is protected against microarchitectural alterations and bone marrow adipose conversion in ovariectomized rats. <i>Bone</i> , 2019, 127, 343-352.	1.4	16
14	High-resolution contrast-enhanced microCT reveals the true three-dimensional morphology of the murine placenta. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 13927-13936.	3.3	47
15	Brief Report From the 4th International Meeting on Bone Marrow Adiposity (BMA2018). <i>Frontiers in Endocrinology</i> , 2019, 10, 691.	1.5	2
16	Fostering crack deviation via local internal stresses in Al/NiTi composites and its correlation with fracture toughness. <i>Composites Part A: Applied Science and Manufacturing</i> , 2019, 126, 105617.	3.8	13
17	Ovariectomy increases RANKL protein expression in bone marrow adipocytes of C3H/HeJ mice. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2019, 317, E1050-E1054.	1.8	21
18	Contrast-Enhanced MicroCT for Virtual 3D Anatomical Pathology of Biological Tissues: A Literature Review. <i>Contrast Media and Molecular Imaging</i> , 2019, 2019, 1-9.	0.4	60

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19	Influence of induced infection in medication-related osteonecrosis of the jaw development after tooth extraction: A study in rats. <i>Journal of Cranio-Maxillo-Facial Surgery</i> , 2019, 47, 349-356.	0.7	17
20	The effect of PPAR $\alpha$ inhibition on bone marrow adipose tissue and bone in C3H/HeJ mice. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2019, 316, E96-E105.	1.8	15
21	A Novel microCT Method for Bone and Marrow Adipose Tissue Alignment Identifies Key Differences Between Mandible and Tibia in Rats. <i>Calcified Tissue International</i> , 2018, 103, 189-197.	1.5	15
22	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> , 2018, 8, 5881.	1.6	23
23	Simultaneous three-dimensional visualization of mineralized and soft skeletal tissues by a novel microCT contrast agent with polyoxometalate structure. <i>Biomaterials</i> , 2018, 159, 1-12.	5.7	70
24	Applications of CT for Non-destructive Testing and Materials Characterization. , 2018, , 267-331.		4
25	Deciphering the combined effect of bone morphogenetic protein 6 and calcium phosphate on bone formation capacity of periosteum derived cell-based tissue engineering constructs. <i>Acta Biomaterialia</i> , 2018, 80, 97-107.	4.1	25
26	A simulation-based study on the influence of the x-ray spectrum on the performance of multi-material beam hardening correction algorithms. <i>Measurement Science and Technology</i> , 2018, 29, 095002.	1.4	5
27	The Impact of Type 2 Diabetes on Bone Fracture Healing. <i>Frontiers in Endocrinology</i> , 2018, 9, 6.	1.5	109
28	Human periosteal-derived cell expansion in a perfusion bioreactor system: proliferation, differentiation and extracellular matrix formation. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2017, 11, 519-530.	1.3	25
29	Suramin protects against osteoarthritis by increasing tissue inhibitor of matrix metalloproteinase-3 and glycosaminoglycans in the articular cartilage. <i>Osteoarthritis and Cartilage</i> , 2017, 25, S145-S146.	0.6	0
30	Computational modelling of local calcium ions release from calcium phosphate-based scaffolds. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017, 16, 425-438.	1.4	17
31	Suramin increases cartilage proteoglycan accumulation in vitro and protects against joint damage triggered by papain injection in mouse knees in vivo. <i>RMD Open</i> , 2017, 3, e000604.	1.8	11
32	04.04 Suramin protects against osteoarthritis by increasing tissue inhibitor of matrix metalloproteinase-3 and glycosaminoglycans in the articular cartilage. , 2017, , .		0
33	Changes in bone macro- and microstructure in diabetic obese mice revealed by high resolution microfocus X-ray computed tomography. <i>Scientific Reports</i> , 2016, 6, 35517.	1.6	33
34	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. <i>Acta Biomaterialia</i> , 2016, 35, 330-340.	4.1	31
35	A novel multimodular methodology to investigate external cervical tooth resorption. <i>International Endodontic Journal</i> , 2016, 49, 287-300.	2.3	48
36	Multifactorial Optimization of Contrast-Enhanced Nanofocus Computed Tomography for Quantitative Analysis of Neo-Tissue Formation in Tissue Engineering Constructs. <i>PLoS ONE</i> , 2015, 10, e0130227.	1.1	10

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37	Contrast-Enhanced Nanofocus X-Ray Computed Tomography Allows Virtual Three-Dimensional Histopathology and Morphometric Analysis of Osteoarthritis in Small Animal Models. <i>Cartilage</i> , 2014, 5, 55-65.	1.4	33
38	Spatial optimization in perfusion bioreactors improves bone tissue-engineered construct quality attributes. <i>Biotechnology and Bioengineering</i> , 2014, 111, 2560-2570.	1.7	32
39	Reporter cell activity within hydrogel constructs quantified from oxygen-independent bioluminescence. <i>Biomaterials</i> , 2014, 35, 8065-8077.	5.7	4
40	Three-Dimensional Characterization of Tissue-Engineered Constructs by Contrast-Enhanced Nanofocus Computed Tomography. <i>Tissue Engineering - Part C: Methods</i> , 2014, 20, 177-187.	1.1	46
41	The effect of spatial micro-CT image resolution and surface complexity on the morphological 3D analysis of open porous structures. <i>Materials Characterization</i> , 2014, 87, 104-115.	1.9	30
42	High-Resolution Microfocus X-Ray Computed Tomography for 3D Surface Roughness Measurements of Additive Manufactured Porous Materials. <i>Advanced Engineering Materials</i> , 2013, 15, 153-158.	1.6	82
43	Validation of a finite element model of a unilateral external fixator in a rabbit tibia defect model. <i>Medical Engineering and Physics</i> , 2013, 35, 1037-1043.	0.8	18
44	Fluorescent oxygen sensitive microbead incorporation for measuring oxygen tension in cell aggregates. <i>Biomaterials</i> , 2013, 34, 922-929.	5.7	24
45	Surface Roughness and Morphology Customization of Additive Manufactured Open Porous Ti6Al4V Structures. <i>Materials</i> , 2013, 6, 4737-4757.	1.3	184
46	Contrast-enhanced nanofocus computed tomography images the cartilage subtissue architecture in three dimensions. , 2013, 25, 179-189.		58
47	The effect of pore geometry on the in vitro biological behavior of human periosteum-derived cells seeded on selective laser-melted Ti6Al4V bone scaffolds. <i>Acta Biomaterialia</i> , 2012, 8, 2824-2834.	4.1	594
48	On-line analysis of cracking in cortical bone under wedge penetration. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2012, 226, 709-717.	1.0	9
49	Surface Modification of Ti6Al4V Open Porous Structures Produced by Additive Manufacturing. <i>Advanced Engineering Materials</i> , 2012, 14, 363-370.	1.6	219
50	Prediction of permeability of regular scaffolds for skeletal tissue engineering: A combined computational and experimental study. <i>Acta Biomaterialia</i> , 2012, 8, 1648-1658.	4.1	166
51	Mechanisms of ectopic bone formation by human osteoprogenitor cells on CaP biomaterial carriers. <i>Biomaterials</i> , 2012, 33, 3127-3142.	5.7	103
52	Ectopic bone formation by 3D porous calcium phosphate-Ti6Al4V hybrids produced by perfusion electrodeposition. <i>Biomaterials</i> , 2012, 33, 4044-4058.	5.7	64
53	Liquid detection in confined aircraft structures based on lyotropic percolation thresholds. <i>Sensors and Actuators B: Chemical</i> , 2012, 161, 791-798.	4.0	5
54	The combined bone forming capacity of human periosteal derived cells and calcium phosphates. <i>Biomaterials</i> , 2011, 32, 4393-4405.	5.7	100

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55	Micro-CT-based improvement of geometrical and mechanical controllability of selective laser melted Ti6Al4V porous structures. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 7423-7431.	2.6	364
56	Multifractal properties of pore-size distribution in apple tissue using X-ray imaging. <i>Journal of Food Engineering</i> , 2010, 99, 206-215.	2.7	81
57	Morphological Analysis of Slip-Cast Emulsion-templated Alumina Foams by Microfocus Computer Tomography. <i>Journal of the American Ceramic Society</i> , 2010, 93, 3921-3928.	1.9	1
58	Baking Gradients Cause Heterogeneity in Starch and Proteins in Pound Cake. <i>Cereal Chemistry</i> , 2010, 87, 475-480.	1.1	20
59	Fruit Microstructure Evaluation Using Synchrotron X-Ray Computed Tomography. <i>Food Engineering Series</i> , 2010, , 589-598.	0.3	1
60	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
61	The role of sugar and fat in sugar-snap cookies: Structural and textural properties. <i>Journal of Food Engineering</i> , 2009, 90, 400-408.	2.7	198
62	Characterization of the porous structure of biodegradable scaffolds obtained with supercritical CO2 as foaming agent. <i>Journal of Porous Materials</i> , 2008, 15, 397-403.	1.3	33
63	Three-Dimensional Gas Exchange Pathways in Pome Fruit Characterized by Synchrotron X-Ray Computed Tomography. <i>Plant Physiology</i> , 2008, 147, 518-527.	2.3	187
64	Validation of x-ray microfocus computed tomography as an imaging tool for porous structures. <i>Review of Scientific Instruments</i> , 2008, 79, 013711.	0.6	79
65	The porous structure of biodegradable scaffolds obtained with supercritical CO2 as foaming agent. <i>Studies in Surface Science and Catalysis</i> , 2007, 160, 681-688.	1.5	5
66	Three-dimensional pore space quantification of apple tissue using X-ray computed microtomography. <i>Planta</i> , 2007, 226, 559-570.	1.6	189