

Stuart R Stock

List of Publications by Year in descending order

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Version: 2024-02-01

64
papers

2,311
citations

279798

23
h-index

233421

45
g-index

67
all docs

67
docs citations

67
times ranked

3170
citing authors

#	ARTICLE	IF	CITATIONS
1	X-ray computed tomography. <i>Nature Reviews Methods Primers</i> , 2021, 1, .	21.2	305
2	Hyperelastic “bone”: A highly versatile, growth factor-free, osteoregenerative, scalable, and surgically friendly biomaterial. <i>Science Translational Medicine</i> , 2016, 8, 358ra127.	12.4	300
3	The Mineral-Collagen Interface in Bone. <i>Calcified Tissue International</i> , 2015, 97, 262-280.	3.1	151
4	Sulfated glycopeptide nanostructures for multipotent protein activation. <i>Nature Nanotechnology</i> , 2017, 12, 821-829.	31.5	148
5	MicroComputed Tomography. , 0, , .		126
6	Micromechanical response of mineral and collagen phases in bone. <i>Journal of Structural Biology</i> , 2007, 157, 365-370.	2.8	111
7	High energy X-ray scattering tomography applied to bone. <i>Journal of Structural Biology</i> , 2008, 161, 144-150.	2.8	77
8	Bone cell-independent benefits of raloxifene on the skeleton: A novel mechanism for improving bone material properties. <i>Bone</i> , 2014, 61, 191-200.	2.9	72
9	X-ray absorption microtomography (microCT) and small beam diffraction mapping of sea urchin teeth. <i>Journal of Structural Biology</i> , 2002, 139, 1-12.	2.8	69
10	Systemic Delivery of an Oncolytic Adenovirus Expressing Decorin for the Treatment of Breast Cancer Bone Metastases. <i>Human Gene Therapy</i> , 2015, 26, 813-825.	2.7	63
11	Mapping of magnesium and of different protein fragments in sea urchin teeth via secondary ion mass spectroscopy. <i>Journal of Structural Biology</i> , 2006, 155, 87-95.	2.8	56
12	X-ray microCT study of pyramids of the sea urchin <i>Lytechinus variegatus</i> . <i>Journal of Structural Biology</i> , 2003, 141, 9-21.	2.8	47
13	Radiant energy required for infrared neural stimulation. <i>Scientific Reports</i> , 2015, 5, 13273.	3.3	47
14	Three-dimensional microarchitecture of the plates (primary, secondary, and carinar process) in the developing tooth of <i>Lytechinus variegatus</i> revealed by synchrotron X-ray absorption microtomography (microCT). <i>Journal of Structural Biology</i> , 2003, 144, 282-300.	2.8	46
15	The effect of vancomycin powder on bone healing in a rat spinal rhBMP-2 model. <i>Journal of Neurosurgery: Spine</i> , 2016, 25, 147-153.	1.7	36
16	3D-Printed Ceramic-Demineralized Bone Matrix Hyperelastic Bone Composite Scaffolds for Spinal Fusion. <i>Tissue Engineering - Part A</i> , 2020, 26, 157-166.	3.1	33
17	Regulation of Breast Cancer-induced Bone Lesions by β -Catenin Protein Signaling. <i>Journal of Biological Chemistry</i> , 2011, 286, 42575-42584.	3.4	32
18	Cementum structure in Beluga whale teeth. <i>Acta Biomaterialia</i> , 2017, 48, 289-299.	8.3	32

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19	Synchrotron microComputed Tomography of the mature bovine dentinoenamel junction. Journal of Structural Biology, 2008, 161, 162-171.	2.8	31
20	MicroComputed Tomography. , 0, , .		30
21	MicroCT quantification of in vitro bone resorption of neonatal murine calvaria exposed to IL-1 or PTH. Journal of Structural Biology, 2004, 147, 185-199.	2.8	28
22	Nanocomposite therapy as a more efficacious and less inflammatory alternative to bone morphogenetic protein in a rodent arthrodesis model. Journal of Orthopaedic Research, 2011, 29, 1812-1819.	2.3	27
23	Microstructures of Antarctic cidaroid spines: diversity of shapes and ectosymbiont attachments. Marine Biology, 2009, 156, 1559-1572.	1.5	26
24	Synchrotron X-ray Studies of the Keel of the Short-Spined Sea Urchin <i>Lytechinus variegatus</i> : Absorption Microtomography (microCT) and Small Beam Diffraction Mapping. Calcified Tissue International, 2003, 72, 555-566.	3.1	25
25	Near tubule and intertubular bovine dentin mapped at the 250 nm level. Journal of Structural Biology, 2011, 176, 203-211.	2.8	25
26	Pathological Calcification in Juvenile Dermatomyositis (JDM): MicroCT and Synchrotron X-Ray Diffraction Reveal Hydroxyapatite with Varied Microstructures. Connective Tissue Research, 2004, 45, 248-256.	2.3	24
27	Dioxin Exposure Impairs BMP-2-Mediated Spinal Fusion in a Rat Arthrodesis Model. Journal of Bone and Joint Surgery - Series A, 2015, 97, 1003-1010.	3.0	22
28	Influence of Geometry and Architecture on the <i>In Vivo</i> Success of 3D-Printed Scaffolds for Spinal Fusion. Tissue Engineering - Part A, 2021, 27, 26-36.	3.1	22
29	Internal strain gradients quantified in bone under load using high-energy X-ray scattering. Journal of Biomechanics, 2011, 44, 291-296.	2.1	19
30	Reconstructing cerebrovascular networks under local physiological constraints by integer programming. Medical Image Analysis, 2015, 25, 86-94.	11.6	19
31	Fluvastatin protects cochleae from damage by high-level noise. Scientific Reports, 2018, 8, 3033.	3.3	19
32	Maximum <i>a posteriori</i> estimation of crystallographic phases in X-ray diffraction tomography. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140392.	3.4	18
33	Osteoinductivity and biomechanical assessment of a 3D printed demineralized bone matrix-ceramic composite in a rat spine fusion model. Acta Biomaterialia, 2021, 127, 146-158.	8.3	18
34	MicroCT Analysis of Symphyseal Ontogeny in <i>Archaeolemur</i> . International Journal of Primatology, 2007, 28, 1385-1396.	1.9	17
35	Sea urchin tooth mineralization: Calcite present early in the aboral plumula. Journal of Structural Biology, 2012, 180, 280-289.	2.8	17
36	Bovine and equine peritubular and intertubular dentin. Acta Biomaterialia, 2014, 10, 3969-3977.	8.3	17

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37	In vitro effect of amorphous calcium phosphate paste applied for extended periods of time on enamel remineralization. <i>Journal of Applied Oral Science</i> , 2017, 25, 596-603.	1.8	17
38	Alcohol exposure decreases osteopontin expression during fracture healing and osteopontin-mediated mesenchymal stem cell migration in vitro. <i>Journal of Orthopaedic Surgery and Research</i> , 2018, 13, 101.	2.3	16
39	Sea urchins have teeth? A review of their microstructure, biomineralization, development and mechanical properties. <i>Connective Tissue Research</i> , 2014, 55, 41-51.	2.3	15
40	Multiple microscopy modalities applied to a sea urchin tooth fragment. <i>Journal of Synchrotron Radiation</i> , 2003, 10, 393-397.	2.4	10
41	On the Formation and Functions of High and Very High Magnesium Calcites in the Continuously Growing Teeth of the Echinoderm <i>Lytechinus variegatus</i> : Development of Crystallinity and Protein Involvement. <i>Cells Tissues Organs</i> , 2011, 194, 131-137.	2.3	9
42	Carbonated apatite lattice parameter variation across incremental growth lines in teeth. <i>Materialia</i> , 2020, 14, 100935.	2.7	9
43	Growth Factors, Carrier Materials, and Bone Repair. <i>Handbook of Experimental Pharmacology</i> , 2020, 262, 121-156.	1.8	9
44	Shark centra microanatomy and mineral density variation studied with laboratory microComputed Tomography. <i>Journal of Structural Biology</i> , 2022, 214, 107831.	2.8	8
45	Calcite orientations and composition ranges within teeth across Echinoidea. <i>Connective Tissue Research</i> , 2014, 55, 48-52.	2.3	7
46	Combined computed tomography and position-resolved X-ray diffraction of an intact Roman-era Egyptian portrait mummy. <i>Journal of the Royal Society Interface</i> , 2020, 17, 20200686.	3.4	7
47	X-ray fluorescence microscopy: A method of measuring ion concentrations in the ear. <i>Hearing Research</i> , 2020, 391, 107948.	2.0	6
48	Effect of cyclic loading on the nanoscale deformation of hydroxyapatite and collagen fibrils in bovine bone. <i>Biomechanics and Modeling in Mechanobiology</i> , 2014, 13, 615-626.	2.8	5
49	Ovariectomy-Induced Osteoporosis Does Not Impact Fusion Rates in a Recombinant Human Bone Morphogenetic Protein-2-Dependent Rat Posterolateral Arthrodesis Model. <i>Global Spine Journal</i> , 2016, 6, 60-68.	2.3	5
50	Microstructure and energy dispersive diffraction reconstruction of 3D patterns of crystallographic texture in a shark centrum. <i>Journal of Medical Imaging</i> , 2022, 9, 031504.	1.5	5
51	Radiant energy during infrared neural stimulation at the target structure. <i>Proceedings of SPIE</i> , 2013, 8565, 85655P.	0.8	4
52	Effect of recombinant human bone morphogenetic protein-2 on a novel lung cancer spine metastasis model in rodents. <i>Journal of Orthopaedic Research</i> , 2016, 34, 1274-1281.	2.3	4
53	Effect of Postoperative Analgesic Exposure to the Cannabinoid Receptor Agonist WIN55 on Osteogenic Differentiation and Spinal Fusion in Rats. <i>Journal of Bone and Joint Surgery - Series A</i> , 2021, 103, 984-991.	3.0	4
54	Evolution of Phase Strains During Tensile Loading of Bovine Cortical Bone. <i>Advanced Engineering Materials</i> , 2013, 15, 238-249.	3.5	3

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55	Distribution, structure, and mineralization of calcified cartilage remnants in hard antlers. Bone Reports, 2022, 16, 101571.	0.4	3
56	Using synchrotron X-ray phase-contrast micro-computed tomography to study tissue damage by laser irradiation. Lasers in Surgery and Medicine, 2016, 48, 866-877.	2.1	2
57	Submicrometer structure of sea urchin tooth via remote synchrotron microCT imaging. , 2014, , .		1
58	Microcomputed tomography (laboratory and synchrotron) of intact archeological human second metacarpal bones and age at death. International Journal of Osteoarchaeology, 0, , .	1.2	1
59	Intact archeological human bones and age at death studied with transmission x-ray diffraction and small angle x-ray scattering. International Journal of Osteoarchaeology, 0, , .	1.2	1
60	Special Section Guest Editorial: Hard X-Ray Tomography with Micrometer Resolution. Journal of Medical Imaging, 2022, 9, .	1.5	1
61	High Energy X-ray Diffraction Measurement of Load Transfer between Hydroxyapatite and Collagen in Bovine Dentin. Materials Research Society Symposia Proceedings, 2009, 1187, 140.	0.1	0
62	Growth of second stage mineral in <i>Lytechinus variegatus</i> . Connective Tissue Research, 2018, 59, 345-355.	2.3	0
63	A mummy's secrets. , 2021, , .		0
64	Atorvastatin Attenuates Lrp5 Mediated Calcification in the Hypercholesterolemic Aortic Valves from ApoE mice. FASEB Journal, 2009, 23, 362.11.	0.5	0