

Alexandra Pacureanu

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Interconnectivity Explains High Canalicular Network Robustness between Neighboring Osteocyte Lacunae in Human Bone. <i>Advanced NanoBiomed Research</i> , 2022, 2, .	1.7	8
2	A biological nanofoam: The wall of coniferous bisaccate pollen. <i>Science Advances</i> , 2022, 8, eabd0892.	4.7	7
3	Functional and multiscale 3D structural investigation of brain tissue through correlative in vivo physiology, synchrotron microtomography and volume electron microscopy. <i>Nature Communications</i> , 2022, 13, .	5.8	17
4	Quantification of the bone lacunocanalicular network from 3D X-ray phase nanotomography images. <i>Journal of Microscopy</i> , 2021, 282, 30-44.	0.8	6
5	Dynamics of topological defects and structural synchronization in a forming periodic tissue. <i>Nature Physics</i> , 2021, 17, 410-415.	6.5	16
6	Multiscale X-ray phase contrast imaging of human cartilage for investigating osteoarthritis formation. <i>Journal of Biomedical Science</i> , 2021, 28, 42.	2.6	19
7	Targeted positioning of quantum dots inside 3D silicon photonic crystals observed by synchrotron X-ray fluorescence tomography. , 2021, , .		0
8	An experimentally informed statistical elasto-plastic mineralised collagen fibre model at the micrometre and nanometre lengthscale. <i>Scientific Reports</i> , 2021, 11, 15539.	1.6	8
9	Quantification of sheet nacre morphogenesis using X-ray nanotomography and deep learning. <i>Journal of Structural Biology</i> , 2020, 209, 107432.	1.3	16
10	Reptile-like physiology in Early Jurassic stem-mammals. <i>Nature Communications</i> , 2020, 11, 5121.	5.8	30
11	Dense neuronal reconstruction through X-ray holographic nano-tomography. <i>Nature Neuroscience</i> , 2020, 23, 1637-1643.	7.1	98
12	Three-dimensional architecture of human diabetic peripheral nerves revealed by X-ray phase contrast holographic nanotomography. <i>Scientific Reports</i> , 2020, 10, 7592.	1.6	17
13	Cryo-nanoimaging of Single Human Macrophage Cells: 3D Structural and Chemical Quantification. <i>Analytical Chemistry</i> , 2020, 92, 4814-4819.	3.2	12
14	Assessment of the human bone lacuno-canalicular network at the nanoscale and impact of spatial resolution. <i>Scientific Reports</i> , 2020, 10, 4567.	1.6	27
15	Axon morphology is modulated by the local environment and impacts the noninvasive investigation of its structureâ€”function relationship. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 33649-33659.	3.3	53
16	Chemical Fingerprint of Znâ€”Hydroxyapatite in the Early Stages of Osteogenic Differentiation. <i>ACS Central Science</i> , 2019, 5, 1449-1460.	5.3	26
17	Overcoming the challenges of high-energy X-ray ptychography. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 1751-1762.	1.0	9
18	Unveiling the impact of the effective particles distribution on strengthening mechanisms: A multiscale characterization of Mg+Y2O3 nanocomposites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 764, 138170.	2.6	14

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19	Crumpling of silver nanowires by endolysosomes strongly reduces toxicity. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14893-14898.	3.3	26
20	Intracellular Localization of an Osmocenylyl-Fluorinated Tamoxifen Derivative in Breast Cancer Cells Revealed by Synchrotron Radiation X-ray Fluorescence Nanoimaging. Angewandte Chemie - International Edition, 2019, 58, 3461-3465.	7.2	25
21	Intracellular Localization of an Osmocenylyl-Fluorinated Tamoxifen Derivative in Breast Cancer Cells Revealed by Synchrotron Radiation X-ray Fluorescence Nanoimaging. Angewandte Chemie, 2019, 131, 3499-3503.	1.6	11
22	No Signature of Osteocytic Osteolysis in Cortical Bone from Lactating NMRI Mice. Calcified Tissue International, 2019, 105, 308-315.	1.5	15
23	Canalicular Junctions in the Osteocyte Lacuno-Canalicular Network of Cortical Bone. ACS Nano, 2019, 13, 6421-6430.	7.3	32
24	Three-Dimensional Correlative Imaging of a Malaria-Infected Cell with a Hard X-ray Nanoprobe. Analytical Chemistry, 2019, 91, 6549-6554.	3.2	14
25	Placing Quantum Dots in 3D Photonic Crystals and Finding Them Back. , 2019, , .		0
26	X-Ray Imaging of Functional Three-Dimensional Photonic Nanostructures with 20-nm Resolution. , 2019, , .		0
27	X-ray Imaging of Functional Three-Dimensional Nanostructures on Massive Substrates. ACS Nano, 2019, 13, 13932-13939.	7.3	14
28	Exploring Alzheimer's disease mouse brain through X-ray phase contrast tomography: From the cell to the organ. NeuroImage, 2019, 184, 490-495.	2.1	56
29	Nanoscale quantification of intracellular element concentration by X-ray fluorescence microscopy combined with X-ray phase contrast nanotomography. Applied Physics Letters, 2018, 112, .	1.5	32
30	An In Vitro Model for the Development of Mature Bone Containing an Osteocyte Network. Advanced Biology, 2018, 2, 1700156.	3.0	16
31	Registration of phase-contrast images in propagation-based X-ray phase tomography. Journal of Microscopy, 2018, 269, 36-47.	0.8	7
32	Hard X-ray Nano-Holotomography of Formalin-Fixated and Paraffin-Embedded Human Brain Tissue. Microscopy and Microanalysis, 2018, 24, 354-355.	0.2	5
33	Nanopositioning for the ESRF ID16A Nano-Imaging Beamline. Synchrotron Radiation News, 2018, 31, 9-14.	0.2	23
34	Efficient correction of wavefront inhomogeneities in X-ray holographic nanotomography by random sample displacement. Applied Physics Letters, 2018, 112, .	1.5	30
35	Evaluation of phase retrieval approaches in magnified X-ray phase nano computerized tomography applied to bone tissue. Optics Express, 2018, 26, 11110.	1.7	23
36	Volumetric Nanoscale Imaging: Hard X-Ray Nanoholotomography: Large-Scale, Label-Free, 3D Neuroimaging beyond Optical Limit (Adv. Sci. 6/2018). Advanced Science, 2018, 5, 1870036.	5.6	0

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37	Synchrotron Radiation X-Ray Fluorescence Nanoimaging Reveal the Intracellular Localization of Potent Anticancer Drug Osmocenyl-Tamoxifen Derivative. <i>Microscopy and Microanalysis</i> , 2018, 24, 350-351.	0.2	3
38	Quantitative Nano-imaging of Cells with a High Energy X-ray Cryo Nano-probe. <i>Microscopy and Microanalysis</i> , 2018, 24, 402-403.	0.2	1
39	Hard X-ray Nanoholotomography: Large-scale, Label-free, 3D Neuroimaging beyond Optical Limit. <i>Advanced Science</i> , 2018, 5, 1700694.	5.6	45
40	Unsupervised solution for in-line holography phase retrieval using Bayesian inference. <i>Optics Express</i> , 2018, 26, 32847.	1.7	3
41	Nanoscale three-dimensional imaging of biological tissue with x-ray holographic tomography. , 2018, , .		0
42	Indirect improvement of high temperature mechanical properties of a Mg-based alloy Elektron21 by addition of AlN nanoparticles. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 688, 76-82.	2.6	13
43	Combined use of X-ray fluorescence microscopy, phase contrast imaging for high resolution quantitative iron mapping in inflamed cells. <i>Journal of Physics: Conference Series</i> , 2017, 849, 012008.	0.3	1
44	Combined Computed Nanotomography and Nanoscopic X-ray Fluorescence Imaging of Cobalt Nanoparticles in <i>Caenorhabditis elegans</i> . <i>Analytical Chemistry</i> , 2017, 89, 11435-11442.	3.2	29
45	Shaping highly regular glass architectures: A lesson from nature. <i>Science Advances</i> , 2017, 3, eaao2047.	4.7	23
46	X-Ray Phase Contrast Tomography Reveals Early Vascular Alterations and Neuronal Loss in a Multiple Sclerosis Model. <i>Scientific Reports</i> , 2017, 7, 5890.	1.6	64
47	Phase retrieval in 3D X-ray magnified phase nano CT: Imaging bone tissue at the nanoscale. , 2017, , .		3
48	Efficient concentration of high-energy x-rays for diffraction-limited imaging resolution. <i>Optica</i> , 2017, 4, 492.	4.8	145
49	Phase-contrast tomography of sciatic nerves: image quality and experimental parameters. <i>Journal of Physics: Conference Series</i> , 2017, 849, 012001.	0.3	2
50	Assessment of imaging quality in magnified phase CT of human bone tissue at the nanoscale. , 2017, , .		2
51	High-energy cryo x-ray nano-imaging at the ID16A beamline of ESRF. , 2017, , .		5
52	High energy near- and far-field ptychographic tomography at the ESRF. , 2017, , .		1
53	Imaging cellular and subcellular structure of human brain tissue using micro computed tomography. , 2017, , .		0
54	Holographic imaging with a hard x-ray nanoprobe: ptychographic versus conventional phase retrieval. <i>Optics Letters</i> , 2016, 41, 5519.	1.7	11

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55	Canalicular Network Morphology Is the Major Determinant of the Spatial Distribution of Mass Density in Human Bone Tissue: Evidence by Means of Synchrotron Radiation Phase-Contrast nano-CT. <i>Journal of Bone and Mineral Research</i> , 2015, 30, 346-356.	3.1	108
56	Synchrotron X-ray phase nano-tomography-based analysis of the lacunarâ€“canalicular network morphology and its relation to the strains experienced by osteocytes in situ as predicted by case-specific finite element analysis. <i>Biomechanics and Modeling in Mechanobiology</i> , 2015, 14, 267-282.	1.4	83
57	Micro- and Nano-CT for the Study of Bone Ultrastructure. <i>Current Osteoporosis Reports</i> , 2014, 12, 465-474.	1.5	87
58	QUANTIFICATION OF THE 3D MORPHOLOGY OF THE BONE CELL NETWORK FROM SYNCHROTRON MICRO-CT IMAGES. <i>Image Analysis and Stereology</i> , 2014, 33, 157.	0.4	15
59	Bone canalicular network segmentation in 3D nano-CT images through geodesic voting and image tessellation. <i>Physics in Medicine and Biology</i> , 2014, 59, 2155-2171.	1.6	15
60	Assessing osteocyte lacunar geometrical properties in human jaw bone on the submicron length scale using synchrotron radiation μ CT. <i>Journal of Microscopy</i> , 2014, 255, 158-168.	0.8	22
61	Image based in situ sequencing for RNA analysis in tissue. , 2014, , .		2
62	Priors for X-ray in-line phase tomography of heterogeneous objects. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20130129.	1.6	22
63	Alterations of Mass Density and 3D Osteocyte Lacunar Properties in Bisphosphonate-Related Osteonecrotic Human Jaw Bone, a Synchrotron μ CT Study. <i>PLoS ONE</i> , 2014, 9, e88481.	1.1	47
64	In situ sequencing for RNA analysis in preserved tissue and cells. <i>Nature Methods</i> , 2013, 10, 857-860.	9.0	650
65	Investigation of the three-dimensional orientation of mineralized collagen fibrils in human lamellar bone using synchrotron X-ray phase nano-tomography. <i>Acta Biomaterialia</i> , 2013, 9, 8118-8127.	4.1	95
66	Region Growing: When Simplicity Meets Theory â€“ Region Growing Revisited in Feature Space and Variational Framework. <i>Communications in Computer and Information Science</i> , 2013, , 426-444.	0.4	4
67	Automated quantification of Zebrafish tail deformation for high-throughput drug screening. , 2013, , 902-905.		5
68	Adaptive filtering for enhancement of the osteocyte cell network in 3D microtomography images. <i>Irbbm</i> , 2013, 34, 48-52.	3.7	11
69	A new quantitative approach for estimating bone cell connections from nano-CT images. , 2013, 2013, 3694-7.		5
70	X-ray in-line phase tomography of multimaterial objects. <i>Optics Letters</i> , 2012, 37, 2151.	1.7	38
71	3D X-ray CT imaging of the bone Lacuno-Canalicular Network. , 2012, , .		2
72	Shape prior in Variational Region Growing. , 2012, , .		1

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73	Propagation based X-ray phase microtomography of multi-material objects for simultaneous bone and soft tissue visualisation. , 2012, , .		0
74	Synchrotron radiation CT from the micro to nanoscale for the investigation of bone tissue. Proceedings of SPIE, 2012, , .	0.8	4
75	Nanoscale imaging of the bone cell network with synchrotron X-ray tomography: optimization of acquisition setup. Medical Physics, 2012, 39, 2229-2238.	1.6	84
76	X-Ray Phase Nanotomography Resolves the 3D Human Bone Ultrastructure. PLoS ONE, 2012, 7, e35691.	1.1	140
77	3D microscopic imaging by synchrotron radiation micro/nano-CT. , 2011, , .		2
78	Segmentation of 3D cellular networks from SR-micro-CT images. , 2011, , .		4
79	Vesselness-guided variational segmentation of cellular networks from 3D micro-CT. , 2010, , .		11
80	3D non-linear enhancement of tubular microscopic bone porosities. , 2009, , .		3
81	Correlative multimodality imaging across scales. , 0, , .		3
82	Sample Preparation and Warping Accuracy for Correlative Multimodal Imaging in the Mouse Olfactory Bulb Using 2-Photon, Synchrotron X-Ray and Volume Electron Microscopy. Frontiers in Cell and Developmental Biology, 0, 10, .	1.8	3