

Alexander Rack

List of Publications by Year in descending order

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215
papers

5,801
citations

61857

43
h-index

106150

65
g-index

221
all docs

221
docs citations

221
times ranked

5706
citing authors

#	ARTICLE	IF	CITATIONS
1	Time-lapse submicrometer particle motion reveals residual strain evolution and damaging stress relaxation in clinical resin composites sealing human root canals. <i>Acta Biomaterialia</i> , 2022, 140, 350-363.	4.1	2
2	Thermal Runaway of Li-Ion Cells: How Internal Dynamics, Mass Ejection, and Heat Vary with Cell Geometry and Abuse Type. <i>Journal of the Electrochemical Society</i> , 2022, 169, 020526.	1.3	11
3	<i>In situ</i> radiographic and <i>ex situ</i> tomographic investigation of pore collapse in laser shock-loaded polyurethane foam. <i>Journal of Applied Physics</i> , 2022, 131, .	1.1	4
4	The effect of cell geometry and trigger method on the risks associated with thermal runaway of lithium-ion batteries. <i>Journal of Power Sources</i> , 2022, 524, 230645.	4.0	28
5	Peculiarities of planar shockwave interaction with air-water interface and solid target. <i>Physics of Plasmas</i> , 2022, 29, .	0.7	9
6	Movement analysis of primate molar teeth under load using synchrotron X-ray microtomography. <i>Journal of Structural Biology</i> , 2021, 213, 107658.	1.3	7
7	Ultra-high speed X-ray imaging of dynamic fracturing in cementitious materials under impact. <i>EPJ Web of Conferences</i> , 2021, 250, 01014.	0.1	3
8	Prevention of lithium-ion battery thermal runaway using polymer-substrate current collectors. <i>Cell Reports Physical Science</i> , 2021, 2, 100360.	2.8	22
9	Machine learning applied to X-ray tomography as a new tool to analyze the voids in RRP Nb3Sn wires. <i>Scientific Reports</i> , 2021, 11, 7767.	1.6	11
10	Synchrotron-based micro computed tomography investigation of the implant-abutment fatigue-induced microgap changes. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 116, 104330.	1.5	8
11	New frontiers in extreme conditions science at synchrotrons and free electron lasers. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 274003.	0.7	12
12	In-situ visualisation of dynamic fracture and fragmentation of an L-type ordinary chondrite by combined synchrotron X-ray radiography and microtomography. <i>Icarus</i> , 2021, 359, 114346.	1.1	7
13	X-ray phase-contrast ghost imaging using a single-pixel camera. <i>Optica</i> , 2021, 8, 1538.	4.8	19
14	High-energy synchrotron X-ray tomography coupled with digital image correlation highlights likely failure points inside ITER toroidal field conductors. <i>Scientific Reports</i> , 2021, 11, 23141.	1.6	1
15	Gaps at the interface between dentine and self-adhesive resin cement in post-endodontic restorations quantified in 3D by phase contrast-enhanced micro-CT. <i>International Endodontic Journal</i> , 2020, 53, 392-402.	2.3	12
16	An Early Myeloma Bone Disease Model in Skeletally Mature Mice as a Platform for Biomaterial Characterization of the Extracellular Matrix. <i>Journal of Oncology</i> , 2020, 2020, 1-12.	0.6	3
17	Observation of side arm splitting studied by high resolution X-ray radiography. <i>International Journal of Materials Research</i> , 2020, 111, 11-16.	0.1	3
18	Hard X-ray Imaging at ESRF: Exploiting Contrast and Coherence with the New EBS Storage Ring. <i>Synchrotron Radiation News</i> , 2020, 33, 20-28.	0.2	10

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19	X-ray Based in Situ Investigation of Silicon Growth Mechanism Dynamics Application to Grain and Defect Formation. Crystals, 2020, 10, 555.	1.0	7
20	Tomography and radiography using hard X-rays and neutrons: shedding light on materials properties and engineering devices. International Journal of Materials Research, 2020, 111, 2-3.	0.1	0
21	Motion of liquid and stabilising particles in individual liquid aluminium alloy films. Journal of Materials Science, 2020, 55, 14125-14136.	1.7	2
22	In situ radiographic and ex situ tomographic analysis of pore interactions during multilayer builds in laser powder bed fusion. Additive Manufacturing, 2020, 36, 101512.	1.7	20
23	Ultra-high-speed x-ray imaging of shock-induced cavity collapse in a solid medium. AIP Conference Proceedings, 2020, , .	0.3	1
24	In-situ Synchrotron imaging of keyhole mode multi-layer laser powder bed fusion additive manufacturing. Applied Materials Today, 2020, 20, 100650.	2.3	46
25	In situ 3D X-ray microtomography of laser-based powder-bed fusion (L-PBF) A feasibility study. Additive Manufacturing, 2020, 34, 101271.	1.7	13
26	Synchrotron micro-CT for studying coarsening in milk protein-stabilized foams in situ. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 601, 124832.	2.3	6
27	Collapse dynamics of spherical cavities in a solid under shock loading. Scientific Reports, 2020, 10, 8455.	1.6	19
28	Impact failure in two silicates revealed by ultrafast, in situ, synchrotron X-ray microscopy. Scientific Reports, 2020, 10, 10366.	1.6	2
29	Supervised deep learning for real-time quality monitoring of laser welding with X-ray radiographic guidance. Scientific Reports, 2020, 10, 3389.	1.6	56
30	Multiscale characterization of the nucleation and 3D structure of Al3Sc phases using electron microscopy and synchrotron X-ray tomography. Materials Characterization, 2020, 164, 110353.	1.9	18
31	TomoPress In Situ Synchrotron-Based Microtomography under Axial Load. Instruments, 2020, 4, 11.	0.8	4
32	Helical Microstructures of the Mineralized Coralline Red Algae Determine Their Mechanical Properties. Advanced Science, 2020, 7, 2000108.	5.6	11
33	Energy and Environmental Science at ESRF. Synchrotron Radiation News, 2020, 33, 40-51.	0.2	3
34	Boosting spatial resolution by incorporating periodic boundary conditions into single-distance hard-x-ray phase retrieval. Journal of Optics (United Kingdom), 2020, 22, 115607.	1.0	10
35	Hard X-ray phase-contrast-enhanced micro-CT for quantifying interfaces within brittle dense root-filling-restored human teeth. Journal of Synchrotron Radiation, 2020, 27, 1015-1022.	1.0	5
36	X-ray phase tomography with near-field speckles for three-dimensional virtual histology. Optica, 2020, 7, 1221.	4.8	37

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37	Microstructure and texture contributing to damage resistance of the anosteocytic hinge-bone in the cleithrum of <i>Esox lucius</i> . <i>International Journal of Materials Research</i> , 2020, 111, 78-85.	0.1	3
38	3d tomography analysis of the packing structure of spherical particles in slender prismatic containers. <i>International Journal of Materials Research</i> , 2020, 111, 65-77.	0.1	15
39	Re-solidification dynamics and microstructural analysis of laser welded aluminium. <i>International Journal of Materials Research</i> , 2020, 111, 17-22.	0.1	2
40	Time-resolved phase-contrast microtomographic imaging of two-phase solidâ€“liquid flow through porous media. <i>International Journal of Materials Research</i> , 2020, 111, 86-95.	0.1	3
41	Fast x-ray radiography to study the dynamic compaction mechanisms in a rigid polyurethane foam under plate impact. <i>AIP Conference Proceedings</i> , 2020, , .	0.3	1
42	In-situ radiography of a split-Hopkinson bar dynamically loaded materials. <i>Journal of Instrumentation</i> , 2019, 14, T06008-T06008.	0.5	10
43	New insights into the process of osteogenesis of anosteocytic bone. <i>Bone</i> , 2019, 125, 61-73.	1.4	18
44	X-ray radiography of the overheating instability in underwater electrical explosions of wires. <i>Physics of Plasmas</i> , 2019, 26, .	0.7	19
45	Foams of Gray Cast Iron as Efficient Energy Absorption Structures: A Feasibility Study. <i>Advanced Engineering Materials</i> , 2019, 21, 1900080.	1.6	7
46	Synchrotron based X-ray radiography of convergent shock waves driven by underwater electrical explosion of a cylindrical wire array. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	15
47	Estimation of filler macroâ€“dispersion in rubber matrix by radiometric stereo microscopy. <i>Journal of Microscopy</i> , 2019, 274, 32-44.	0.8	1
48	Modelling and experiments to identify high-risk failure scenarios for testing the safety of lithium-ion cells. <i>Journal of Power Sources</i> , 2019, 417, 29-41.	4.0	93
49	Solidification cracking during welding of steel: In situ X-ray observation. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 529, 012026.	0.3	0
50	Simultaneous X-ray radiography and diffraction topography imaging applied to silicon for defect analysis during melting and crystallization. <i>Journal of Applied Crystallography</i> , 2019, 52, 1312-1320.	1.9	10
51	Time and Mechanism of Nanoparticle Functionalization by Macromolecular Ligands during Pulsed Laser Ablation in Liquids. <i>Langmuir</i> , 2019, 35, 3038-3047.	1.6	44
52	Use of synchrotron-based radiography to diagnose pulsed power driven wire explosion experiments. <i>Review of Scientific Instruments</i> , 2019, 90, 013504.	0.6	14
53	Recent advances on in situ materials characterization using ultra high-speed x-ray imaging at The European Synchrotron â€“ ESRF. , 2019, , .		1
54	Megahertz x-ray microscopy at x-ray free-electron laser and synchrotron sources. <i>Optica</i> , 2019, 6, 1106.	4.8	41

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55	Investigation of the dynamic fragmentation process in ceramics by using ultra-high speed x-ray imaging with synchrotron radiation. , 2019, , .		0
56	In-situ visualization of sound-induced otolith motion using hard X-ray phase contrast imaging. Scientific Reports, 2018, 8, 3121.	1.6	22
57	A Three-Stage Mechanistic Model for Solidification Cracking During Welding of Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 1674-1682.	1.1	27
58	Validation of finite-element simulations with synchrotron radiography – A descriptive study of micromechanics in two-piece dental implants. Heliyon, 2018, 4, e00524.	1.4	7
59	Ultra high-speed x-ray imaging of laser-driven shock compression using synchrotron light. Journal Physics D: Applied Physics, 2018, 51, 055601.	1.3	42
60	Quantitative correlation between the void morphology of niobium-tin wires and their irreversible critical current degradation upon mechanical loading. Scientific Reports, 2018, 8, 6589.	1.6	14
61	Identifying the Cause of Rupture of Li-ion Batteries during Thermal Runaway. Advanced Science, 2018, 5, 1700369.	5.6	89
62	Growth of second stage mineral in <i>Lytechinus variegatus</i> . Connective Tissue Research, 2018, 59, 345-355.	1.1	0
63	Real-Time Hard X-ray Imaging. , 2018, , 227-237.		1
64	Propagation-based X-ray Phase Contrast Microtomography of Zebrafish Embryos to Understand Drug Delivery. Microscopy and Microanalysis, 2018, 24, 406-407.	0.2	0
65	Laser processing quality monitoring by combining acoustic emission and machine learning: a high-speed X-ray imaging approach. Procedia CIRP, 2018, 74, 654-658.	1.0	47
66	Why is in situ quality control of laser keyhole welding a real challenge?. Procedia CIRP, 2018, 74, 649-653.	1.0	27
67	Biom mineralization as a Paradigm of Directional Solidification: A Physical Model for Molluscan Shell Ultrastructural Morphogenesis. Advanced Materials, 2018, 30, e1803855.	11.1	27
68	Multi frame synchrotron radiography of pulsed power driven underwater single wire explosions. Journal of Applied Physics, 2018, 124, .	1.1	23
69	Practical X-ray Ghost Imaging. Microscopy and Microanalysis, 2018, 24, 134-135.	0.2	3
70	Advances in indirect detector systems for ultra high-speed hard X-ray imaging with synchrotron light. Journal of Instrumentation, 2018, 13, C04004-C04004.	0.5	18
71	Ultra-high-speed indirect x-ray imaging system with versatile spatiotemporal sampling capabilities. Applied Optics, 2018, 57, 5004.	0.9	26
72	Influence of impurities, strontium addition and cooling rate on microstructure evolution in Al-10Si-0.3Fe casting alloys. Journal of Alloys and Compounds, 2018, 766, 818-827.	2.8	22

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73	Impacting silicates using a fast indentation device. AIP Conference Proceedings, 2018, , .	0.3	0
74	Towards a practical implementation of X-ray ghost imaging with synchrotron light. IUCrJ, 2018, 5, 428-438.	1.0	32
75	Multichannel optrodes for photonic stimulation. Neurophotonics, 2018, 5, 1.	1.7	21
76	Ghost tomography. Optica, 2018, 5, 1516.	4.8	53
77	Initiation and growth kinetics of solidification cracking during welding of steel. Scientific Reports, 2017, 7, 40255.	1.6	49
78	Formation of intermetallic $\hat{\Gamma}$ phase in Al-10Si-0.3Fe alloy investigated by in-situ 4D X-ray synchrotron tomography. Acta Materialia, 2017, 129, 194-202.	3.8	53
79	Numerical analysis of deposit effect on nozzle flow and spray characteristics of GDI injectors. Applied Energy, 2017, 204, 1215-1224.	5.1	29
80	Torsion estimation of particle paths through porous media observed by <i>in situ</i> time-resolved microtomography. Journal of Microscopy, 2017, 266, 141-152.	0.8	7
81	X-ray tomography investigations of mono-sized sphere packing structures in cylindrical containers. Powder Technology, 2017, 318, 471-483.	2.1	63
82	Synchrotron radiation $\hat{\Gamma}$ CT and histology evaluation of bone-to-implant contact. Journal of Cranio-Maxillo-Facial Surgery, 2017, 45, 1448-1457.	0.7	8
83	In situ X-ray tomography of aqueous foams: Analysis of columnar foam generation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 534, 78-84.	2.3	9
84	Microporosity in aluminium foams. Acta Materialia, 2017, 131, 156-168.	3.8	72
85	Characterising thermal runaway within lithium-ion cells by inducing and monitoring internal short circuits. Energy and Environmental Science, 2017, 10, 1377-1388.	15.6	194
86	Shaping highly regular glass architectures: A lesson from nature. Science Advances, 2017, 3, eaao2047.	4.7	23
87	Probing the early stages of shock-induced chondritic meteorite formation at the mesoscale. Scientific Reports, 2017, 7, 45206.	1.6	21
88	MHz frame rate hard X-ray phase-contrast imaging using synchrotron radiation. Optics Express, 2017, 25, 13857.	1.7	82
89	Tracking Internal Temperature and Structural Dynamics during Nail Penetration of Lithium-Ion Cells. Journal of the Electrochemical Society, 2017, 164, A3285-A3291.	1.3	102
90	Mixing instabilities during shearing of metals. Nature Communications, 2017, 8, 1611.	5.8	92

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91	Synchrotron Microtomography Investigation of the Filament Microstructure in Differently Processed Bi-2212 Wires. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	5
92	Optimizing structural and mechanical properties of cryogel scaffolds for use in prostate cancer cell culturing. Materials Science and Engineering C, 2017, 71, 465-472.	3.8	23
93	Coalescence Avalanches in Liquid Aluminum Foams. Metals, 2017, 7, 298.	1.0	5
94	Combining Coherent Hard X-Ray Tomographies with Phase Retrieval to Generate Three-Dimensional Models of Forming Bone. Frontiers in Materials, 2017, 4, .	1.2	5
95	3.4 Developments in High-Resolution CT: Studying Bioregeneration by Hard X-Ray Synchrotron-Based Microtomography \hat{t} . , 2017, , 58-77.		3
96	Removing ring artefacts from synchrotron radiation-based hard x-ray tomography data. , 2017, , .		0
97	Computational cell quantification in the human brain tissues based on hard x-ray phase-contrast tomograms. Proceedings of SPIE, 2016, , .	0.8	0
98	A deformation rig for synchrotron microtomography studies of geomaterials under conditions \hat{A} down to 10 $\hat{\epsilon}$...km depth in the Earth. Journal of Synchrotron Radiation, 2016, 23, 1030-1034.	1.0	63
99	Hard X-ray phase-contrast tomography of non-homogeneous specimens: grating interferometry $\langle i \rangle$ versus $\langle j \rangle$ propagation-based imaging. Journal of Synchrotron Radiation, 2016, 23, 1202-1209.	1.0	14
100	Hierarchical imaging of the human knee. , 2016, , .		3
101	Ultra-precision fabrication of 500 mm long and laterally graded Ru/C multilayer mirrors for X-ray light sources. Review of Scientific Instruments, 2016, 87, 051804.	0.6	12
102	The impact of surface morphology on the magnetovolume transition in magnetocaloric $\text{LaFe}_{11.8}\text{Si}_{1.2}$. APL Materials, 2016, 4, 106101.	2.2	16
103	Experimental X-Ray Ghost Imaging. Physical Review Letters, 2016, 117, 113902.	2.9	245
104	Evaluating scintillator performance in time-resolved hard X-ray studies at synchrotron light sources. Journal of Synchrotron Radiation, 2016, 23, 685-693.	1.0	31
105	In-vacuum multi-modal monochromator for synchrotron-based hard x-ray micro-imaging. AIP Conference Proceedings, 2016, , .	0.3	1
106	Beam profile and coherence properties of synchrotron beams after reflection on modified multilayer mirrors. AIP Conference Proceedings, 2016, , .	0.3	0
107	Finding robust descriptive features for the characterization of the coarsening dynamics of three dimensional whey protein foams. Journal of Colloid and Interface Science, 2016, 467, 148-157.	5.0	5
108	Real-time direct and diffraction X-ray imaging of irregular silicon wafer breakage. IUCr, 2016, 3, 108-114.	1.0	26

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109	Mass Density Measurement of Mineralized Tissue with Grating-Based X-Ray Phase Tomography. PLoS ONE, 2016, 11, e0167797.	1.1	20
110	High-resolution synchrotron radiation-based phase tomography of the healthy and epileptic brain. , 2016, , .		0
111	<i>In situ</i> micro-radioscopy and microtomography of fatigue-loaded dental two-piece implants. Journal of Synchrotron Radiation, 2015, 22, 1492-1497.	1.0	17
112	Application of high resolution synchrotron micro-CT radiation in dental implant osseointegration. Journal of Cranio-Maxillo-Facial Surgery, 2015, 43, 682-687.	0.7	19
113	X-ray grating interferometry at photon energies over 180 keV. Applied Physics Letters, 2015, 106, .	1.5	21
114	Examining microstructural evolution of Portland cements by in-situ synchrotron micro-tomography. Journal of Materials Science, 2015, 50, 1805-1817.	1.7	33
115	X-ray-refractive-index measurements at photon energies above 100 keV with a grating interferometer. Physical Review A, 2015, 91, .	1.0	10
116	Micro- and nano-structural details of a spider's filter for substrate vibrations: relevance for low-frequency signal transmission. Journal of the Royal Society Interface, 2015, 12, 20141111.	1.5	31
117	Multi-contrast 3D X-ray imaging of porous and composite materials. Applied Physics Letters, 2015, 106, .	1.5	31
118	Fatigue induced changes in conical implant-abutment connections. Dental Materials, 2015, 31, 1415-1426.	1.6	58
119	Near-field ptychography using lateral and longitudinal shifts. New Journal of Physics, 2015, 17, 073033.	1.2	30
120	Stabilisation of aluminium foams and films by the joint action of dispersed particles and oxide films. Acta Materialia, 2015, 99, 313-324.	3.8	44
121	X-Ray Phase-Contrast Tomography of Renal Ischemia-Reperfusion Damage. PLoS ONE, 2014, 9, e109562.	1.1	28
122	Microstructural analysis of a C/SiC ceramic based on the segmentation of X-ray phase contrast tomographic data. International Journal of Materials Research, 2014, 105, 702-708.	0.1	3
123	High-speed in-situ tomography of liquid protein foams. International Journal of Materials Research, 2014, 105, 632-639.	0.1	15
124	Experimental comparison of grating- and propagation-based hard X-ray phase tomography of soft tissue. Journal of Applied Physics, 2014, 116, .	1.1	46
125	Materials tomography is coming of age. International Journal of Materials Research, 2014, 105, 618-619.	0.1	1
126	Submicrometer structure of sea urchin tooth via remote synchrotron microCT imaging. , 2014, , .		1

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127	Reflection on multilayer mirrors: beam profile and coherence properties. Proceedings of SPIE, 2014, , .	0.8	1
128	Characterization of multilayer structures in fiber reinforced polymer employing synchrotron and laboratory X-ray CT. International Journal of Materials Research, 2014, 105, 645-654.	0.1	25
129	Analyses of the mouthpart kinematics in <i>Periplaneta americana</i> (Blattodea, Blattellidae) by using Synchrotron-based X-ray cineradiography. Journal of Experimental Biology, 2014, 217, 3095-107.	0.8	19
130	Thin-film-based scintillators for hard x-ray microimaging detectors: the ScinTAX Project. Proceedings of SPIE, 2014, , .	0.8	0
131	X-ray phase-contrast tomosynthesis for improved breast tissue discrimination. European Journal of Radiology, 2014, 83, 531-536.	1.2	19
132	Investigation of the luminescence, crystallographic and spatial resolution properties of LSO:Tb scintillating layers used for X-ray imaging applications. Radiation Measurements, 2014, 62, 28-34.	0.7	13
133	The rupture of a single liquid aluminium alloy film. Soft Matter, 2014, 10, 4711.	1.2	8
134	Self-similar mesostructure evolution of the growing mollusc shell reminiscent of thermodynamically driven grain growth. Nature Materials, 2014, 13, 1102-1107.	13.3	72
135	Combustion Foaming of Al-Ti Intermetallics Studied In situ by Fast X-ray Radioscopy. , 2014, 4, 281-285.		1
136	Exploiting coherence for real-time studies by single-bunch imaging. Journal of Synchrotron Radiation, 2014, 21, 815-818.	1.0	54
137	Grating-based X-ray phase-contrast tomography of atherosclerotic plaque at high photon energies. Zeitschrift Fur Medizinische Physik, 2013, 23, 194-203.	0.6	23
138	Characterization of crocodile teeth: Correlation of composition, microstructure, and hardness. Journal of Structural Biology, 2013, 184, 155-163.	1.3	40
139	Quantitative X-ray phase-contrast computed tomography at 82 keV. Optics Express, 2013, 21, 4155.	1.7	59
140	Protocol to study wavefront preservation capabilities of reflective X-ray optics with coherent synchrotron light. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 710, 101-105.	0.7	7
141	<i>ANKAphase</i> : software for single-distance phase retrieval from inline X-ray phase-contrast radiographs. Erratum. Journal of Synchrotron Radiation, 2013, 20, 205-205.	1.0	4
142	In situ demineralisation of human enamel studied by synchrotron-based X-ray microtomography – A descriptive pilot-study. Micron, 2013, 44, 404-409.	1.1	7
143	Particle and liquid motion in semi-solid aluminium alloys: A quantitative in situ microradioscopy study. Acta Materialia, 2013, 61, 1244-1253.	3.8	28
144	Hierarchical radioscopy using polychromatic and partially coherent hard synchrotron radiation. Applied Optics, 2013, 52, 8122.	0.9	9

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145	Heat bump on a monochromator crystal measured with X-ray grating interferometry. <i>Journal of Synchrotron Radiation</i> , 2013, 20, 300-305.	1.0	22
146	Holotomography versus X-ray grating interferometry: A comparative study. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	36
147	An In Vitro Pilot Study of Abutment Stability During Loading in New and Fatigue-Loaded Conical Dental Implants Using Synchrotron-Based Radiography. <i>International Journal of Oral and Maxillofacial Implants</i> , 2013, 28, 44-50.	0.6	48
148	Study of multilayer-reflected beam profiles and their coherence properties using beamlines ID19 (ESRF) and 32-ID (APS). , 2012, , .		5
149	Numerical comparison of X-ray differential phase contrast and attenuation contrast. <i>Biomedical Optics Express</i> , 2012, 3, 1141.	1.5	13
150	A versatile indirect detector design for hard X-ray microimaging. <i>Journal of Instrumentation</i> , 2012, 7, P09016-P09016.	0.5	80
151	Exploiting Contrast with Tomography. <i>International Journal of Materials Research</i> , 2012, 103, 143-144.	0.1	1
152	Comparison of propagation-based phase-contrast tomography approaches for the evaluation of dentin microstructure. <i>Proceedings of SPIE</i> , 2012, , .	0.8	4
153	Trimodal low-dose X-ray tomography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 10199-10204.	3.3	103
154	Comparing the micro-vascular structure of cancerous and healthy tissues. <i>Proceedings of SPIE</i> , 2012, , .	0.8	4
155	Fatigue induced deformation of taper connections in dental titanium implants. <i>International Journal of Materials Research</i> , 2012, 103, 207-216.	0.1	15
156	Coating thickness determination in highly absorbent core-shell systems. <i>Journal of Applied Crystallography</i> , 2012, 45, 906-913.	1.9	10
157	A scolopocryptopid centipede (Chilopoda: Scolopendromorpha) from Mexican amber: synchrotron microtomography and phylogenetic placement using a combined morphological and molecular data set. <i>Zoological Journal of the Linnean Society</i> , 2012, 166, 768-786.	1.0	22
158	Hard X-ray multilayer mirror round-robin on the wavefront preservation capabilities of W/B4C coatings. <i>Radiation Physics and Chemistry</i> , 2012, 81, 1696-1702.	1.4	8
159	Metal Foaming Investigated by X-ray Radioscopy. <i>Metals</i> , 2012, 2, 10-21.	1.0	39
160	Status of the hard X-ray microprobe beamline ID22 of the European Synchrotron Radiation Facility. <i>Journal of Synchrotron Radiation</i> , 2012, 19, 10-18.	1.0	95
161	Partial decomposition of TiH ₂ studied in situ by energy-dispersive diffraction and ex situ by diffraction microtomography of hard X-ray synchrotron radiation. <i>Scripta Materialia</i> , 2012, 66, 757-760.	2.6	21
162	Estimation of the probability of finite percolation in porous microstructures from tomographic images. <i>International Journal of Materials Research</i> , 2012, 103, 184-191.	0.1	14

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163	Beyond imaging: on the quantitative analysis of tomographic volume data. International Journal of Materials Research, 2012, 103, 217-227.	0.1	28
164	Speciation of Actinides in Granite Subjected to Tracer Studies. , 2011, , 413-435.		4
165	Coherent Synchrotron-Based Micro-Imaging Employed for Studies of Micro-Gap Formation in Dental Implants. , 2011, , .		0
166	Performance of Multilayer Monochromators for Hard X-Ray Imaging with Coherent Synchrotron Radiation. AIP Conference Proceedings, 2011, , .	0.3	7
167	Identification of root filling interfaces by microscopy and tomography methods. International Endodontic Journal, 2011, 44, 395-401.	2.3	60
168	LPE grown LSO:Tb scintillator films for high-resolution X-ray imaging applications at synchrotron light sources. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 648, S321-S323.	0.7	50
169	Coherence preservation and beam flatness of a single-bounce multilayer monochromator (beamline) Tj ETQq1 1 0.784314 rgBT /Over Spectrometers, Detectors and Associated Equipment, 2011, 649, 123-127.	0.7	7
170	Mapping the dislocation sub-structure of deformed polycrystalline Ni by scanning microbeam diffraction topography. Scripta Materialia, 2011, 64, 884-887.	2.6	15
171	Micropowder injection molding: investigation of powder-binder separation using synchrotron-based microtomography and 3D image analysis. Journal of Materials Science, 2011, 46, 3568-3573.	1.7	19
172	Comparison of the statolith structures of Chironex fleckeri (Cnidaria, Cubozoa) and Periphylla periphylla (Cnidaria, Scyphozoa): a phylogenetic approach. Marine Biology, 2011, 158, 1149-1161.	0.7	28
173	<i>ANKAphase</i>: software for single-distance phase retrieval from inline X-ray phase-contrast radiographs. Journal of Synchrotron Radiation, 2011, 18, 617-629.	1.0	221
174	Real-time X-ray diffraction imaging for semiconductor wafer metrology and high temperature <i>in situ</i> experiments. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 2499-2504.	0.8	13
175	Monoclinic phase transformations of zirconia-based dental prostheses, induced by clinically practised surface manipulations. Acta Biomaterialia, 2011, 7, 2994-3002.	4.1	51
176	Characterisation of LSO:Tb scintillator films for high resolution X-ray imaging applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 633, S292-S293.	0.7	4
177	Progress on single crystal beryllium windows. Proceedings of SPIE, 2011, , .	0.8	1
178	Developments in High-Resolution CT: Studying Bioregeneration by Hard X-ray Synchrotron-Based Microtomography. , 2011, , 47-62.		3
179	Micro-imaging performance of multilayers used as monochromators for coherent hard x-ray synchrotron radiation. , 2010, , .		4
180	Fully automated, fixed exit, in vacuum double-multilayer monochromator for synchrotron-based hard X-ray micro-imaging applications. , 2010, , .		4

#	ARTICLE	IF	CITATIONS
181	X-ray diffraction microtomography (XRD-CT), a novel tool for non-invasive mapping of phase development in cement materials. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 397, 2131-2136.	1.9	71
182	<i>In vitro</i> synchrotron-based radiography of micro-gap formation at the implantâ€‘abutment interface of two-piece dental implants. <i>Journal of Synchrotron Radiation</i> , 2010, 17, 289-294.	1.0	56
183	Comparative study of multilayers used in monochromators for synchrotron-based coherent hard X-ray imaging. <i>Journal of Synchrotron Radiation</i> , 2010, 17, 496-510.	1.0	73
184	A novel epitaxially grown LSO-based thin-film scintillator for micro-imaging using hard synchrotron radiation. <i>Journal of Synchrotron Radiation</i> , 2010, 17, 571-583.	1.0	61
185	Direct observation of particle flow in semi-solid alloys by synchrotron X-ray micro-radioscopy. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2010, 207, 718-723.	0.8	19
186	On the possibilities of hard X-ray imaging with high spatio-temporal resolution using polychromatic synchrotron radiation. <i>Journal of X-Ray Science and Technology</i> , 2010, 18, 429-441.	0.7	53
187	Quantitative studies on inner interfaces in conical metal joints using hard x-ray inline phase contrast radiography. <i>Review of Scientific Instruments</i> , 2010, 81, 103703.	0.6	10
188	Ex vivo and in vitro synchrotron-based micro-imaging of biocompatible materials applied in dental surgery. <i>Proceedings of SPIE</i> , 2010, , .	0.8	0
189	Diffraction and Transmission Synchrotron Imaging at the German Light Source ANKAâ€‘Potential Industrial Applications. , 2009, , .		1
190	Quantitative Evaluation of Histomorphometry. <i>Imaging & Microscopy</i> , 2009, 11, 32-34.	0.1	1
191	Synchrotron-based radioscopy employing spatio-temporal micro-resolution for studying fast phenomena in liquid metal foams. <i>Journal of Synchrotron Radiation</i> , 2009, 16, 432-434.	1.0	51
192	The micro-imaging station of the TopoTomo beamline at the ANKA synchrotron light source. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2009, 267, 1978-1988.	0.6	92
193	Early pore formation in aluminium foams studied by synchrotron-based microtomography and 3-D image analysis. <i>Acta Materialia</i> , 2009, 57, 4809-4821.	3.8	62
194	Studies of LSO:Tb radio-luminescence properties using white beam hard X-ray synchrotron irradiation. <i>Radiation Effects and Defects in Solids</i> , 2009, 164, 517-522.	0.4	12
195	Quantification of bone tissue regeneration employing β^2 -tricalcium phosphate by three-dimensional non-invasive synchrotron micro-tomography â€‘ A comparative examination with histomorphometry. <i>Bone</i> , 2009, 44, 619-628.	1.4	40
196	The synchrotron-based imaging station for micro-radiography and-tomography at the BAMline (BESSY). <i>Journal of Physics: Conference Series</i> , 2009, 186, 012047.	0.3	4
197	LSO-Based Single Crystal Film Scintillator for Synchrotron-Based Hard X-Ray Micro-Imaging. <i>IEEE Transactions on Nuclear Science</i> , 2009, 56, 1412-1418.	1.2	103
198	Effect of β^2 -tricalcium phosphate particles with varying porosity on osteogenesis after sinus floor augmentation in humans. <i>Biomaterials</i> , 2008, 29, 2249-2258.	5.7	88

#	ARTICLE	IF	CITATIONS
199	White beam topography of 300Åmm Si wafers. <i>Journal of Materials Science: Materials in Electronics</i> , 2008, 19, 269-272.	1.1	12
200	High resolution synchrotron-based radiography and tomography using hard X-rays at the BAMline (BESSY II). <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008, 586, 327-344.	0.7	165
201	White beam synchrotron topography using a high resolution digital X-ray imaging detector. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2008, 266, 2035-2040.	0.6	35
202	The high-resolution synchrotron-based imaging stations at the BAM line (BESSY) and TopoTomo (ANKA). , 2008, , .		7
203	Analysis of spatial crossâ€correlations in multiâ€constituent volume data. <i>Journal of Microscopy</i> , 2008, 232, 282-292.	0.8	16
204	High-resolution tomography of cracks, voids and micro-structure in greywacke and limestone. <i>Journal of Structural Geology</i> , 2008, 30, 876-887.	1.0	65
205	High-Speed X-ray Cineradiography for Analyzing Complex Kinematics in Living Insects. <i>Synchrotron Radiation News</i> , 2008, 21, 34-38.	0.2	15
206	Synchrotron-based radioscopy with spatio-temporal micro-resolution using hard X-rays. , 2008, , .		2
207	Fast processes in liquid metal foams investigated by high-speed synchrotron x-ray microradioscopy. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	53
208	In situ investigation of the discharge of alkaline Znâ€MnO ₂ batteries with synchrotron x-ray and neutron tomographies. <i>Applied Physics Letters</i> , 2007, 90, 214102.	1.5	84
209	A Comparative Study of the Biodegradability of Calcium-Alkali-Orthophosphate Ceramics in Vitro and in Vivo. <i>Key Engineering Materials</i> , 2007, 330-332, 63-66.	0.4	6
210	Synchrotron microtomography and 3D image analysis for studying the degradability of biocompatible ceramics within biopsies sampled after sinus floor augmentation. , 2007, , .		2
211	Coarsening of grain-refined semi-solid Alâ€Ge ₃₂ alloy: X-ray microtomography and in situ radiography. <i>Acta Materialia</i> , 2007, 55, 5045-5055.	3.8	31
212	Synchrotronâ€radiation computed laminography for highâ€resolution threeâ€dimensional imaging of flat devices. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2007, 204, 2760-2765.	0.8	59
213	Why are metal foams stable?. <i>Applied Physics Letters</i> , 2006, 89, 154102.	1.5	71
214	Dynamical bistability in quantum-dot structures: Role of Auger processes. <i>Physical Review B</i> , 2002, 66, .	1.1	12
215	Effect of a Rapidly Resorbable Calcium Alkali Phosphate Bone Grafting Material on Osteogenesis after Sinus Floor Augmentation in Humans. <i>Key Engineering Materials</i> , 0, 758, 239-244.	0.4	4