

Rolf Kaufmann

List of Publications by Year in descending order

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58
papers

1,470
citations

430754

18
h-index

377752

34
g-index

59
all docs

59
docs citations

59
times ranked

1710
citing authors

#	ARTICLE	IF	CITATIONS
1	An all-solid-state optical range camera for 3D real-time imaging with sub-centimeter depth resolution (SwissRanger). , 2004, 5249, 534.		162
2	Noise analysis of grating-based x-ray differential phase contrast imaging. Review of Scientific Instruments, 2010, 81, 073709.	0.6	121
3	High-density electrode array for imaging in vitro electrophysiological activity. Biosensors and Bioelectronics, 2005, 21, 167-174.	5.3	109
4	Ultralow dark current Ge/Si(100) photodiodes with low thermal budget. Applied Physics Letters, 2009, 94, .	1.5	89
5	Sub-pixel porosity revealed by x-ray scatter dark field imaging. Journal of Applied Physics, 2011, 110, .	1.1	84
6	Laminate fibre structure characterisation of carbon fibre-reinforced polymers by X-ray scatter dark field imaging with a grating interferometer. NDT and E International, 2013, 58, 64-71.	1.7	74
7	Biofilms in 3D porous media: Delineating the influence of the pore network geometry, flow and mass transfer on biofilm development. Water Research, 2018, 134, 280-291.	5.3	71
8	Near infrared image sensor with integrated germanium photodiodes.. Journal of Applied Physics, 2011, 110, .	1.1	52
9	X-ray interferometer with bent gratings: Towards larger fields of view. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 648, S302-S305.	0.7	49
10	Comparison of geometrical, momentum and mass transfer characteristics of real foams to Kelvin cell lattices for catalyst applications. International Journal of Heat and Mass Transfer, 2017, 108, 341-350.	2.5	49
11	Orientation-selective X-ray dark field imaging of ordered systems. Journal of Applied Physics, 2012, 112, .	1.1	46
12	Biofilm imaging in porous media by laboratory X-Ray tomography: Combining a non-destructive contrast agent with propagation-based phase-contrast imaging tools. PLoS ONE, 2017, 12, e0180374.	1.1	40
13	Heterojunction photodiodes fabricated from Ge/Si (1â€%0â€%0) layers grown by low-energy plasma-enhanced CVD. Semiconductor Science and Technology, 2007, 22, S26-S28.	1.0	34
14	Novel pixel architecture with inherent background suppression for 3D time-of-flight imaging. , 2005, , .		33
15	Dual energy phase contrast x-ray imaging with Talbot-Lau interferometer. Journal of Applied Physics, 2010, 108, 114906.	1.1	29
16	Effect of aging on thermal conductivity of fiber-reinforced aerogel composites: An X-ray tomography study. Microporous and Mesoporous Materials, 2019, 278, 289-296.	2.2	29
17	Phase contrast X-ray imaging of large samples using an incoherent laboratory source. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 2728-2733.	0.8	28
18	Investigation of the Axial Gap Clearance in a Hydrodynamicâ€%Passive Magnetically Levitated Rotary Blood Pump Using Xâ€%Ray Radiography. Artificial Organs, 2018, 42, 510-515.	1.0	22

#	ARTICLE	IF	CITATIONS
19	A high resolution silicon beam telescope. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 480, 501-507.	0.7	20
20	Sensor development for the CMS pixel detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 485, 89-99.	0.7	20
21	Visualization of water drying in porous materials by X-ray phase contrast imaging. Journal of Microscopy, 2016, 261, 88-104.	0.8	19
22	Predicting the macroscopic response of electrospun membranes based on microstructure and single fibre properties. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 104, 103634.	1.5	19
23	Lorentz-angle in irradiated silicon. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 477, 304-307.	0.7	18
24	Reduction of phase artifacts in differential phase contrast computed tomography. Optics Express, 2011, 19, 13604.	1.7	18
25	Detection of stress whitening in plastics with the help of X-ray dark field imaging. Polymer Testing, 2013, 32, 1094-1098.	2.3	18
26	Structuring hybrid palladium nanoparticles in metallic monolithic reactors for continuous-flow three-phase alkyne hydrogenation. Reaction Chemistry and Engineering, 2016, 1, 454-462.	1.9	18
27	Virtual reading of a large ancient handwritten science book. Microchemical Journal, 2016, 125, 185-189.	2.3	18
28	Demonstration of a novel drift field pixel structure for the demodulation of modulated light waves with application in three-dimensional image capture. , 2004, , .		17
29	A new method for fusion, denoising and enhancement of x-ray images retrieved from Talbot's Lau grating interferometry. Physics in Medicine and Biology, 2014, 59, 1425-1440.	1.6	17
30	Relationship of vibro-mechanical properties and microstructure of wood and varnish interface in string instruments. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	15
31	(Invited) Three-Dimensional Epitaxial Si _{1-x} Ge _x , Ge and SiC Crystals on Deeply Patterned Si Substrates. ECS Transactions, 2014, 64, 631-648.	0.3	14
32	X-ray source downscaling enabled by combining microfabricated electrodes with carbon nanotube cold electron emitters. Microelectronic Engineering, 2014, 122, 13-19.	1.1	12
33	A time-of-flight line sensor: development and application. , 2004, 5459, 192.		10
34	Design and test of pixel sensors for the CMS experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 461, 182-184.	0.7	9
35	X-ray dark-field contrast imaging of water transport during hydration and drying of early-age cement-based materials. Materials Characterization, 2018, 142, 560-576.	1.9	9
36	High-speed and high-sensitive demodulation pixel for 3D imaging. , 2006, , .		8

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37	Phase Contrast Cone Beam Tomography with an X-Ray Grating Interferometer. AIP Conference Proceedings, 2010, , .	0.3	8
38	Applications of Laboratory-Based Phase-Contrast Imaging Using Speckle Tracking Technique towards High Energy X-Rays. Journal of Imaging, 2018, 4, 69.	1.7	8
39	Bone mineral density, mechanical properties, and trabecular orientation of cancellous bone within humeral heads affected by advanced shoulder arthropathy. Journal of Orthopaedic Research, 2020, 38, 1914-1919.	1.2	7
40	Ge/Si (100) heterojunction photodiodes fabricated from material grown by low-energy plasma-enhanced chemical vapour deposition. Thin Solid Films, 2008, 517, 380-382.	0.8	6
41	A novel approach to increase robustness, precision and high-throughput capacity of single cell gel electrophoresis. ALTEX: Alternatives To Animal Experimentation, 2020, 1, 95-109.	0.9	6
42	PHASE SENSITIVE X-RAY IMAGING: TOWARDS ITS INTERDISCIPLINARY APPLICATIONS. , 2010, , .		5
43	Recent developments on X-ray phase contrast imaging technology at CSEM. AIP Conference Proceedings, 2012, , .	0.3	5
44	Epitaxial Ge-crystal arrays for X-ray detection. Journal of Instrumentation, 2014, 9, C03019-C03019.	0.5	5
45	High aspect ratio, Large area silicon-based gratings for X-ray phase contrast imaging. , 2014, , .		4
46	Differentiation of dental restorative materials combining energy-dispersive X-ray fluorescence spectroscopy and post-mortem CT. Forensic Science, Medicine, and Pathology, 2018, 14, 163-173.	0.6	4
47	Individual heterojunctions of ^{30}D germanium crystals on silicon CMOS for monolithically integrated X-ray detector. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 131-135.	0.8	3
48	Advancing the visualization of pure water transport in porous materials by fast, talbot interferometry-based multi-contrast x-ray micro-tomography. , 2016, , .		3
49	Sensing small angle scattering with an X-ray grating interferometer. , 2010, , .		2
50	Application-Oriented X-ray Grating Interferometer. , 2010, , .		1
51	X-ray phase contrast imaging of soft tissue specimens. , 2011, , .		1
52	Three dimensional heteroepitaxy: A new path for monolithically integrating mismatched materials with silicon. , 2012, , .		1
53	Comment on "A new method for fusion, denoising and enhancement of x-ray images retrieved from Talbot-Lau grating interferometry". Physics in Medicine and Biology, 2015, 60, 925-928.	1.6	1
54	Transient Current Behavior of Vertically Integrated Amorphous Silicon Diodes. Materials Research Society Symposia Proceedings, 2007, 989, 3.	0.1	0

#	ARTICLE	IF	CITATIONS
55	High speed Ge photodetector integrated on silicon-on-insulator operating at very low bias voltage. , 2008, , .		0
56	8 Gb/s 0.5 V integrated Ge-on-SOI photodetector. , 2009, , .		0
57	Phase sensitive X-ray imaging: Towards medical applications. , 2010, , .		0
58	Comparison of different phase retrieval algorithms. , 2017, , .		0