

# Franz Pfeiffer

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/797037/publications.pdf>

Version: 2024-02-01

256  
papers

13,401  
citations

53794

45  
h-index

26613

107  
g-index

267  
all docs

267  
docs citations

267  
times ranked

7065  
citing authors

#	ARTICLE	IF	CITATIONS
1	Qualitative and Quantitative Assessment of Emphysema Using Dark-Field Chest Radiography. <i>Radiology</i> , 2022, 303, 119-127.	7.3	20
2	Dark-field computed tomography reaches the human scale. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	43
3	X-ray Dark-field Chest Radiography of Lymphangiomyomatosis. <i>Radiology</i> , 2022, 303, 499-500.	7.3	2
4	Fabrication of X-ray absorption gratings by centrifugal deposition of bimodal tungsten particles in high aspect ratio silicon templates. <i>Scientific Reports</i> , 2022, 12, 5405.	3.3	4
5	Dark-field chest x-ray imaging: first experience in patients with alpha1-antitrypsin deficiency. <i>European Radiology Experimental</i> , 2022, 6, 9.	3.4	5
6	X-ray Dark-Field CT for Early Detection of Radiation-induced Lung Injury in a Murine Model. <i>Radiology</i> , 2022, 303, 696-698.	7.3	4
7	Opportunistic osteoporosis screening: contrast-enhanced dual-layer spectral CT provides accurate measurements of vertebral bone mineral density. <i>European Radiology</i> , 2021, 31, 3147-3155.	4.5	15
8	Experimental and numerical analysis of void structure in random packed beds of spheres. <i>Powder Technology</i> , 2021, 380, 613-628.	4.2	31
9	Early detection of radiation-induced lung damage with X-ray dark-field radiography in mice. <i>European Radiology</i> , 2021, 31, 4175-4183.	4.5	7
10	3D Non-destructive Imaging through Heavy-Metal Eosin Salt Contrast Agents. <i>Chemistry - A European Journal</i> , 2021, 27, 4561-4566.	3.3	7
11	Heterogeneity of Graphite Lithiation in State-of-the-Art Cylinder-Type Li-ion Cells. <i>Batteries and Supercaps</i> , 2021, 4, 327-335.	4.7	8
12	Whole-body x-ray dark-field radiography of a human cadaver. <i>European Radiology Experimental</i> , 2021, 5, 6.	3.4	9
13	Heterogeneity of Graphite Lithiation in State-of-the-Art Cylinder-Type Li-ion Cells. <i>Batteries and Supercaps</i> , 2021, 4, 251-251.	4.7	2
14	Quantitative X-ray phase contrast computed tomography with grating interferometry. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2021, 48, 4171-4188.	6.4	17
15	Detection of Bone Marrow Edema in Patients with Osteoid Osteoma Using Three-Material Decomposition with Dual-Layer Spectral CT. <i>Diagnostics</i> , 2021, 11, 953.	2.6	4
16	Direct Differentiation of Pathological Changes in the Human Lung Parenchyma With Grating-Based Spectral X-ray Dark-Field Radiography. <i>IEEE Transactions on Medical Imaging</i> , 2021, 40, 1568-1578.	8.9	4
17	Correlation of image quality parameters with tube voltage in X-ray dark-field chest radiography: a phantom study. <i>Scientific Reports</i> , 2021, 11, 14130.	3.3	4
18	X-ray dark-field tomography reveals tooth cracks. <i>Scientific Reports</i> , 2021, 11, 14017.	3.3	4

#	ARTICLE	IF	CITATIONS
19	Lung nodule detection in chest X-rays using synthetic ground-truth data comparing CNN-based diagnosis to human performance. <i>Scientific Reports</i> , 2021, 11, 15857.	3.3	15
20	Dosimetry on first clinical dark-field chest radiography. <i>Medical Physics</i> , 2021, 48, 6152-6159.	3.0	9
21	X-ray Dark-Field Chest Imaging: Qualitative and Quantitative Results in Healthy Humans. <i>Radiology</i> , 2021, 301, 389-395.	7.3	41
22	In-vivo X-ray dark-field computed tomography for the detection of radiation-induced lung damage in mice. <i>Physics and Imaging in Radiation Oncology</i> , 2021, 20, 11-16.	2.9	10
23	Laboratory-scale <i>in situ</i> X-ray absorption spectroscopy of a palladium catalyst on a compact inverse-Compton scattering X-ray beamline. <i>Journal of Analytical Atomic Spectrometry</i> , 2021, 36, 2649-2659.	3.0	4
24	Signal Retrieval from Non-Sinusoidal Intensity Modulations in X-ray and Neutron Interferometry Using Piecewise-Defined Polynomial Function. <i>Journal of Imaging</i> , 2021, 7, 209.	3.0	1
25	Fabrication of x-ray absorption gratings via deep x-ray lithography using a conventional x-ray tube. <i>Journal of Micro-nanopatterning, Materials, and Metrology</i> , 2021, 20, .	0.8	3
26	X-ray dark-field chest imaging for detection and quantification of emphysema in patients with chronic obstructive pulmonary disease: a diagnostic accuracy study. <i>The Lancet Digital Health</i> , 2021, 3, e733-e744.	12.3	70
27	Comparison of Thermal Neutron and Hard X-ray Dark-Field Tomography. <i>Journal of Imaging</i> , 2021, 7, 1.	3.0	2
28	Simultaneous two-color X-ray absorption spectroscopy using Laue crystals at an inverse-compton scattering X-ray facility. <i>Journal of Synchrotron Radiation</i> , 2021, 28, 1874-1880.	2.4	0
29	On the Mechanism of Catalytic Decarboxylation of Carboxylic Acids on Carbon-Supported Palladium Hydride. <i>ACS Catalysis</i> , 2021, 11, 14625-14634.	11.2	11
30	Retrieval of 3D information in X-ray dark-field imaging with a large field of view. <i>Scientific Reports</i> , 2021, 11, 23504.	3.3	2
31	A proof of principle experiment for microbeam radiation therapy at the Munich compact light source. <i>Radiation and Environmental Biophysics</i> , 2020, 59, 111-120.	1.4	15
32	Towards subject-level cerebral infarction classification of CT scans using convolutional networks. <i>PLoS ONE</i> , 2020, 15, e0235765.	2.5	2
33	Imaging characteristics of intravascular spherical contrast agents for grating-based x-ray dark-field imaging – effects of concentrations, spherical sizes and applied voltage. <i>Scientific Reports</i> , 2020, 10, 9405.	3.3	3
34	Dynamic K-edge Subtraction Fluoroscopy at a Compact Inverse-Compton Synchrotron X-ray Source. <i>Scientific Reports</i> , 2020, 10, 9612.	3.3	7
35	A robust convolutional neural network for lung nodule detection in the presence of foreign bodies. <i>Scientific Reports</i> , 2020, 10, 12987.	3.3	25
36	A proof-of-principal study using phase-contrast imaging for the detection of large airway pathologies after lung transplantation. <i>Scientific Reports</i> , 2020, 10, 18444.	3.3	1

#	ARTICLE	IF	CITATIONS
37	Technical and dosimetric realization of in vivo x-ray microbeam irradiations at the Munich Compact Light Source. <i>Medical Physics</i> , 2020, 47, 5183-5193.	3.0	3
38	Grating-based spectral X-ray dark-field imaging for correlation with structural size measures. <i>Scientific Reports</i> , 2020, 10, 13195.	3.3	14
39	X-ray Dark-Field Radiography. <i>Investigative Radiology</i> , 2020, 55, 494-498.	6.2	9
40	Photon-counting spectral basis component material decomposition for musculoskeletal radiographs. <i>Scientific Reports</i> , 2020, 10, 13889.	3.3	3
41	MCL-1 gains occur with high frequency in lung adenocarcinoma and can be targeted therapeutically. <i>Nature Communications</i> , 2020, 11, 4527.	12.8	32
42	Energy-Dispersive X-ray Absorption Spectroscopy with an Inverse Compton Source. <i>Scientific Reports</i> , 2020, 10, 8772.	3.3	26
43	Nanosopic X-ray tomography for correlative microscopy of a small meiofaunal sea-cucumber. <i>Scientific Reports</i> , 2020, 10, 3960.	3.3	11
44	Qualitative comparison of non-destructive methods for inspection of carbon fiber-reinforced polymer laminates. <i>Journal of Composite Materials</i> , 2020, 54, 4325-4337.	2.4	14
45	A high visibility Talbot-Lau neutron grating interferometer to investigate stress-induced magnetic degradation in electrical steel. <i>Scientific Reports</i> , 2020, 10, 1764.	3.3	23
46	An approach to construct a three-dimensional isogeometric model from $\mu$ CT scan data with an application to the bridge of a violin. <i>Computer Aided Geometric Design</i> , 2020, 78, 101815.	1.2	3
47	Grating-based phase-contrast CT (PCCT): histopathological correlation of human liver cirrhosis and hepatocellular carcinoma specimen. <i>Journal of Clinical Pathology</i> , 2020, 73, 483-487.	2.0	6
48	Advanced X-ray Imaging Technology. <i>Recent Results in Cancer Research</i> , 2020, 216, 3-30.	1.8	16
49	Spectroscopic imaging at compact inverse Compton X-ray sources. <i>Physica Medica</i> , 2020, 79, 137-144.	0.7	6
50	Spectral-detector based x-ray absorptiometry (SDXA): in-vivo bone mineral density measurements in patients with and without osteoporotic fractures. <i>Biomedical Physics and Engineering Express</i> , 2020, 6, 055021.	1.2	4
51	Phase-Vortex Removal for Quantitative X-Ray Nanotomography with Near-Field Ptychography. <i>Physical Review Applied</i> , 2020, 14, .	3.8	3
52	Methods for dynamic synchrotron X-ray respiratory imaging in live animals. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 164-175.	2.4	22
53	The versatile X-ray beamline of the Munich Compact Light Source: design, instrumentation and applications. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 1395-1414.	2.4	34
54	K-edge subtraction imaging for iodine and calcium separation at a compact synchrotron x-ray source. <i>Journal of Medical Imaging</i> , 2020, 7, 1.	1.5	6

#	ARTICLE	IF	CITATIONS
55	X-ray phase tomography with near-field speckles for three-dimensional virtual histology. <i>Optica</i> , 2020, 7, 1221.	9.3	37
56	Dose and spatial resolution analysis of grating-based phase-contrast mammography using an inverse Compton x-ray source. <i>Journal of Medical Imaging</i> , 2020, 7, 1.	1.5	0
57	Quantitative dual-energy micro-CT with a photon-counting detector for material science and non-destructive testing. <i>PLoS ONE</i> , 2019, 14, e0219659.	2.5	15
58	Optimization of tube voltage in X-ray dark-field chest radiography. <i>Scientific Reports</i> , 2019, 9, 8699.	3.3	28
59	Multimodal Precision Imaging of Pulmonary Nanoparticle Delivery in Mice: Dynamics of Application, Spatial Distribution, and Dosimetry. <i>Small</i> , 2019, 15, e1904112.	10.0	21
60	Optimization of in vivo murine X-ray dark-field computed tomography. <i>Review of Scientific Instruments</i> , 2019, 90, 103103.	1.3	3
61	Dynamic Quantitative Iodine Myocardial Perfusion Imaging with Dual-Layer CT using a Porcine Model. <i>Scientific Reports</i> , 2019, 9, 16046.	3.3	5
62	3D Imaging of Soft-Tissue Samples using an X-ray Specific Staining Method and Nanoscopic Computed Tomography. <i>Journal of Visualized Experiments</i> , 2019, , .	0.3	2
63	Functional morphology of a lobopod: case study of an onychophoran leg. <i>Royal Society Open Science</i> , 2019, 6, 191200.	2.4	10
64	Imaging features in post-mortem x-ray dark-field chest radiographs and correlation with conventional x-ray and CT. <i>European Radiology Experimental</i> , 2019, 3, 25.	3.4	21
65	K-edge Subtraction Computed Tomography with a Compact Synchrotron X-ray Source. <i>Scientific Reports</i> , 2019, 9, 13332.	3.3	16
66	X-ray imaging of a water bear offers a new look at tardigrade internal anatomy. <i>Zoological Letters</i> , 2019, 5, 14.	1.3	19
67	Visualizing treatment delivery and deposition in mouse lungs using in vivo x-ray imaging. <i>Journal of Controlled Release</i> , 2019, 307, 282-291.	9.9	27
68	Contrast-to-noise ratios and thickness-normalized, ventilation-dependent signal levels in dark-field and conventional in vivo thorax radiographs of two pigs. <i>PLoS ONE</i> , 2019, 14, e0217858.	2.5	11
69	Full-field structured-illumination super-resolution X-ray transmission microscopy. <i>Nature Communications</i> , 2019, 10, 2494.	12.8	11
70	Bone mineral density measurements derived from dual-layer spectral CT enable opportunistic screening for osteoporosis. <i>European Radiology</i> , 2019, 29, 6355-6363.	4.5	46
71	Paleometry as a key tool to deal with paleobiological and astrobiological issues: some contributions and reflections on the Brazilian fossil record. <i>International Journal of Astrobiology</i> , 2019, 18, 575-589.	1.6	5
72	Perfusion-ventilation CT via three-material differentiation in dual-layer CT: a feasibility study. <i>Scientific Reports</i> , 2019, 9, 5837.	3.3	8

#	ARTICLE	IF	CITATIONS
73	Metric-guided regularisation parameter selection for statistical iterative reconstruction in computed tomography. <i>Scientific Reports</i> , 2019, 9, 6016.	3.3	5
74	A step towards valid detection and quantification of lung cancer volume in experimental mice with contrast agent-based X-ray microtomography. <i>Scientific Reports</i> , 2019, 9, 1325.	3.3	17
75	3D grating-based X-ray phase-contrast computed tomography for high-resolution quantitative assessment of cartilage: An experimental feasibility study with 3T MRI, 7T MRI and biomechanical correlation. <i>PLoS ONE</i> , 2019, 14, e0212106.	2.5	9
76	Differentiation between blood and iodine in a bovine brain—Initial experience with Spectral Photon-Counting Computed Tomography (SPCCT). <i>PLoS ONE</i> , 2019, 14, e0212679.	2.5	26
77	DXA-equivalent quantification of bone mineral density using dual-layer spectral CT scout scans. <i>European Radiology</i> , 2019, 29, 4624-4634.	4.5	18
78	Assessment of intraductal carcinoma in situ (DCIS) using grating-based X-ray phase-contrast CT at conventional X-ray sources: An experimental ex-vivo study. <i>PLoS ONE</i> , 2019, 14, e0210291.	2.5	18
79	Device for source position stabilization and beam parameter monitoring at inverse Compton X-ray sources. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 1546-1553.	2.4	11
80	Quality and parameter control of X-ray absorption gratings by angular X-ray transmission. <i>Optics Express</i> , 2019, 27, 15943.	3.4	9
81	Three-dimensional virtual histology enabled through cytoplasm-specific X-ray stain for microscopic and nanoscopic computed tomography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 2293-2298.	7.1	85
82	Experimental feasibility of spectral photon-counting computed tomography with two contrast agents for the detection of endoleaks following endovascular aortic repair. <i>European Radiology</i> , 2018, 28, 3318-3325.	4.5	79
83	Propagation-based phase-contrast x-ray tomography of cochlea using a compact synchrotron source. <i>Scientific Reports</i> , 2018, 8, 4922.	3.3	21
84	Depiction of pneumothoraces in a large animal model using x-ray dark-field radiography. <i>Scientific Reports</i> , 2018, 8, 2602.	3.3	31
85	Incorporating a Noise Reduction Technique Into X-Ray Tensor Tomography. <i>IEEE Transactions on Computational Imaging</i> , 2018, 4, 137-146.	4.4	3
86	Dual-energy CT: a phantom comparison of different platforms for abdominal imaging. <i>European Radiology</i> , 2018, 28, 2745-2755.	4.5	114
87	X-Ray Dark-field Imaging to Depict Acute Lung Inflammation in Mice. <i>Scientific Reports</i> , 2018, 8, 2096.	3.3	25
88	Assessment of quantification accuracy and image quality of a full-body dual-layer spectral CT system. <i>Journal of Applied Clinical Medical Physics</i> , 2018, 19, 204-217.	1.9	65
89	X-ray ptychography. <i>Nature Photonics</i> , 2018, 12, 9-17.	31.4	424
90	Tilted grating phase-contrast computed tomography using statistical iterative reconstruction. <i>Scientific Reports</i> , 2018, 8, 6608.	3.3	4

#	ARTICLE	IF	CITATIONS
91	Qualitative and Quantitative Evaluation of Structural Myocardial Alterations by Grating-Based Phase-Contrast Computed Tomography. <i>Investigative Radiology</i> , 2018, 53, 26-34.	6.2	11
92	Laboratory-based X-ray NanoCT Explores Morphology of a Zebrafish Embryo. <i>Microscopy and Microanalysis</i> , 2018, 24, 184-185.	0.4	4
93	The Munich Compact Light Source: Flux Doubling and Source Position Stabilization At a Compact Inverse-Compton Synchrotron X-ray Source.. <i>Microscopy and Microanalysis</i> , 2018, 24, 316-317.	0.4	4
94	Nucleus-specific X-ray stain for 3D virtual histology. <i>Scientific Reports</i> , 2018, 8, 17855.	3.3	36
95	Bismuth-Oxo-Clusters for Soft-Tissue Staining. <i>Microscopy and Microanalysis</i> , 2018, 24, 368-369.	0.4	0
96	Dual-layer spectral computed tomography: measuring relative electron density. <i>European Radiology Experimental</i> , 2018, 2, 20.	3.4	21
97	K-edge subtraction imaging for coronary angiography with a compact synchrotron X-ray source. <i>PLoS ONE</i> , 2018, 13, e0208446.	2.5	28
98	Evaluation of a preclinical photon-counting CT prototype for pulmonary imaging. <i>Scientific Reports</i> , 2018, 8, 17386.	3.3	53
99	Direct quantitative material decomposition employing grating-based X-ray phase-contrast CT. <i>Scientific Reports</i> , 2018, 8, 16394.	3.3	30
100	Brain Connectivity Exposed by Anisotropic X-ray Dark-field Tomography. <i>Scientific Reports</i> , 2018, 8, 14345.	3.3	17
101	X-ray dark-field imaging of the human lung – A feasibility study on a deceased body. <i>PLoS ONE</i> , 2018, 13, e0204565.	2.5	76
102	GPU Accelerated Image Processing in CCD-Based Neutron Imaging. <i>Journal of Imaging</i> , 2018, 4, 104.	3.0	1
103	Dose-compatible grating-based phase-contrast mammography on mastectomy specimens using a compact synchrotron source. <i>Scientific Reports</i> , 2018, 8, 15700.	3.3	16
104	High resolution laboratory grating-based X-ray phase-contrast CT. <i>Scientific Reports</i> , 2018, 8, 15884.	3.3	25
105	Spectral Angiography Material Decomposition Using an Empirical Forward Model and a Dictionary-Based Regularization. <i>IEEE Transactions on Medical Imaging</i> , 2018, 37, 2298-2309.	8.9	16
106	Dual-layer spectral computed tomography: Virtual non-contrast in comparison to true non-contrast images. <i>European Journal of Radiology</i> , 2018, 104, 108-114.	2.6	83
107	X-ray dark-field contrast imaging of water transport during hydration and drying of early-age cement-based materials. <i>Materials Characterization</i> , 2018, 142, 560-576.	4.4	9
108	Analysis and correction of bias induced by phase stepping jitter in grating-based X-ray phase-contrast imaging. <i>Optics Express</i> , 2018, 26, 12707.	3.4	23

#	ARTICLE	IF	CITATIONS
109	Accurate effective atomic number determination with polychromatic grating-based phase-contrast computed tomography. <i>Optics Express</i> , 2018, 26, 15153.	3.4	25
110	Electron Density of Adipose Tissues Determined by Phase-Contrast Computed Tomography Provides a Measure for Mitochondrial Density and Fat Content. <i>Frontiers in Physiology</i> , 2018, 9, 707.	2.8	13
111	CT scanning of membrane feed spacers – Impact of spacer model accuracy on hydrodynamic and solute transport modeling in membrane feed channels. <i>Journal of Membrane Science</i> , 2018, 564, 133-145.	8.2	21
112	Simultaneous wood and metal particle detection on dark-field radiography. <i>European Radiology Experimental</i> , 2018, 2, 1.	3.4	35
113	In vivo Dynamic Phase-Contrast X-ray Imaging using a Compact Light Source. <i>Scientific Reports</i> , 2018, 8, 6788.	3.3	28
114	The Munich Compact Light Source: Biomedical Research At a Laboratory-Scale Inverse-Compton Synchrotron X-ray Source. <i>Microscopy and Microanalysis</i> , 2018, 24, 984-985.	0.4	4
115	Propagation-based phase-contrast tomography of a guinea pig inner ear with cochlear implant using a model-based iterative reconstruction algorithm. <i>Biomedical Optics Express</i> , 2018, 9, 5330.	2.9	2
116	Large field-of-view tiled grating structures for X-ray phase-contrast imaging. <i>Review of Scientific Instruments</i> , 2017, 88, 015104.	1.3	38
117	Fourier domain image fusion for differential X-ray phase-contrast breast imaging. <i>European Journal of Radiology</i> , 2017, 89, 27-32.	2.6	7
118	Mono-Energy Coronary Angiography with a Compact Synchrotron Source. <i>Scientific Reports</i> , 2017, 7, 42211.	3.3	25
119	Large-area full field x-ray differential phase-contrast imaging using 2D tiled gratings. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 225401.	2.8	15
120	Grating-based X-ray dark-field computed tomography for the characterization of friction stir welds: A feasibility study. <i>Materials Characterization</i> , 2017, 129, 143-148.	4.4	11
121	Ex Vivo Assessment of Coronary Atherosclerotic Plaque by Grating-Based Phase-Contrast Computed Tomography. <i>Investigative Radiology</i> , 2017, 52, 223-231.	6.2	8
122	Disorientation angle distribution of primary particles in potash alum aggregates. <i>Journal of Crystal Growth</i> , 2017, 467, 93-106.	1.5	10
123	X-ray Dark-field Radiography - In-Vivo Diagnosis of Lung Cancer in Mice. <i>Scientific Reports</i> , 2017, 7, 402.	3.3	63
124	Spectral Photon-counting CT: Initial Experience with Dual-Contrast Agent K-Edge Colonography. <i>Radiology</i> , 2017, 283, 723-728.	7.3	111
125	Ex vivo characterization of pathologic fluids with quantitative phase-contrast computed tomography. <i>European Journal of Radiology</i> , 2017, 86, 99-104.	2.6	2
126	Dark-field imaging in coronary atherosclerosis. <i>European Journal of Radiology</i> , 2017, 94, 38-45.	2.6	6



#	ARTICLE	IF	CITATIONS
127	X-ray dark-field radiography facilitates the diagnosis of pulmonary fibrosis in a mouse model. Scientific Reports, 2017, 7, 340.	3.3	25
128	Propagation-based Phase-Contrast X-ray Imaging at a Compact Light Source. Scientific Reports, 2017, 7, 4908.	3.3	38
129	Grating-based phase-contrast and dark-field computed tomography: a single-shot method. Scientific Reports, 2017, 7, 7476.	3.3	30
130	Bone mineral density measurements in vertebral specimens and phantoms using dual-layer spectral computed tomography. Scientific Reports, 2017, 7, 17519.	3.3	32
131	Trabecular bone anisotropy imaging with a compact laser-undulator synchrotron x-ray source. Scientific Reports, 2017, 7, 14477.	3.3	26
132	Myoanatomy of the velvet worm leg revealed by laboratory-based nanofocus X-ray source tomography. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12378-12383.	7.1	52
133	Is multidetector CT-based bone mineral density and quantitative bone microstructure assessment at the spine still feasible using ultra-low tube current and sparse sampling?. European Radiology, 2017, 27, 5261-5271.	4.5	47
134	In-vivo X-ray Dark-Field Chest Radiography of a Pig. Scientific Reports, 2017, 7, 4807.	3.3	83
135	Non-iterative Directional Dark-field Tomography. Scientific Reports, 2017, 7, 3307.	3.3	19
136	Dual-energy micro-CT for quantifying the time-course and staining characteristics of ex-vivo animal organs treated with iodine- and gadolinium-based contrast agents. Scientific Reports, 2017, 7, 17387.	3.3	14
137	Dual-energy micro-CT with a dual-layer, dual-color, single-crystal scintillator. Optics Express, 2017, 25, 6924.	3.4	8
138	Advanced Non-Destructive Ocular Visualization Methods by Improved X-Ray Imaging Techniques. PLoS ONE, 2017, 12, e0170633.	2.5	8
139	Revising the lower statistical limit of x-ray grating-based phase-contrast computed tomography. PLoS ONE, 2017, 12, e0184217.	2.5	4
140	Increased cell survival and cytogenetic integrity by spatial dose redistribution at a compact synchrotron X-ray source. PLoS ONE, 2017, 12, e0186005.	2.5	12
141	Simultaneous dual-contrast multi-phase liver imaging using spectral photon-counting computed tomography: a proof-of-concept study. European Radiology Experimental, 2017, 1, 25.	3.4	61
142	Low-dose, phase-contrast mammography with high signal-to-noise ratio. Biomedical Optics Express, 2016, 7, 381.	2.9	18
143	X-ray deconvolution microscopy. Biomedical Optics Express, 2016, 7, 1227.	2.9	10
144	Facilitated Diagnosis of Pneumothoraces in Newborn Mice Using X-ray Dark-Field Radiography. Investigative Radiology, 2016, 51, 597-601.	6.2	40

#	ARTICLE	IF	CITATIONS
145	Improved Diagnostics by Assessing the Micromorphology of Breast Calcifications via X-Ray Dark-Field Radiography. <i>Scientific Reports</i> , 2016, 6, 36991.	3.3	28
146	Hard X-ray phase-contrast tomography of non-homogeneous specimens: grating interferometry versus propagation-based imaging. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 1202-1209.	2.4	14
147	Visualization of neonatal lung injury associated with mechanical ventilation using x-ray dark-field radiography. <i>Scientific Reports</i> , 2016, 6, 24269.	3.3	38
148	Novelty detection of foreign objects in food using multi-modal X-ray imaging. <i>Food Control</i> , 2016, 67, 39-47.	5.5	53
149	AHA classification of coronary and carotid atherosclerotic plaques by grating-based phase-contrast computed tomography. <i>European Radiology</i> , 2016, 26, 3223-3233.	4.5	38
150	Dentinal tubules revealed with X-ray tensor tomography. <i>Dental Materials</i> , 2016, 32, 1189-1195.	3.5	27
151	The Munich Compact Light Source: initial performance measures. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 1137-1142.	2.4	131
152	Hydrophobic Properties of Biofilm-Enriched Hybrid Mortar. <i>Advanced Materials</i> , 2016, 28, 8138-8143.	21.0	38
153	Biofilms: Hydrophobic Properties of Biofilm-Enriched Hybrid Mortar ( <i>Adv. Mater.</i> 37/2016). <i>Advanced Materials</i> , 2016, 28, 8315-8315.	21.0	0
154	Shape Identification of Primary Particles in Potash Alum Aggregates Using Three-Dimensional Tomography Data. <i>Crystal Growth and Design</i> , 2016, 16, 2685-2699.	3.0	13
155	Quantitative Three-Dimensional Imaging of Lipid, Protein, and Water Contents via X-Ray Phase-Contrast Tomography. <i>PLoS ONE</i> , 2016, 11, e0151889.	2.5	17
156	Mass Density Measurement of Mineralized Tissue with Grating-Based X-Ray Phase Tomography. <i>PLoS ONE</i> , 2016, 11, e0167797.	2.5	20
157	Absorption and Phase Contrast X-Ray Imaging in Paleontology Using Laboratory and Synchrotron Sources. <i>Microscopy and Microanalysis</i> , 2015, 21, 1288-1295.	0.4	4
158	Constrained X-ray tensor tomography reconstruction. <i>Optics Express</i> , 2015, 23, 15134.	3.4	30
159	Lens-term- and edge-effect in X-ray grating interferometry. <i>Biomedical Optics Express</i> , 2015, 6, 4812.	2.9	13
160	Contrast-to-noise ratio optimization for a prototype phase-contrast computed tomography scanner. <i>Review of Scientific Instruments</i> , 2015, 86, 123705.	1.3	5
161	Improved In vivo Assessment of Pulmonary Fibrosis in Mice using X-Ray Dark-Field Radiography. <i>Scientific Reports</i> , 2015, 5, 17492.	3.3	72
162	Simulations of x-ray speckle-based dark-field and phase-contrast imaging with a polychromatic beam. <i>Journal of Applied Physics</i> , 2015, 118, .	2.5	32

#	ARTICLE	IF	CITATIONS
163	Penalized maximum likelihood reconstruction for x-ray differential phase-contrast tomography. <i>Medical Physics</i> , 2015, 43, 188-194.	3.0	28
164	X-ray Dark-Field Vector Radiography—A Novel Technique for Osteoporosis Imaging. <i>Journal of Computer Assisted Tomography</i> , 2015, 39, 286-289.	0.9	13
165	X-ray Phase-Contrast Computed Tomography of Human Coronary Arteries. <i>Investigative Radiology</i> , 2015, 50, 686-694.	6.2	21
166	In Vivo Dark-Field Radiography for Early Diagnosis and Staging of Pulmonary Emphysema. <i>Investigative Radiology</i> , 2015, 50, 430-435.	6.2	77
167	3D Algebraic Iterative Reconstruction for Cone-Beam X-Ray Differential Phase-Contrast Computed Tomography. <i>PLoS ONE</i> , 2015, 10, e0117502.	2.5	15
168	Reduction of Metal Artifact in Single Photon-Counting Computed Tomography by Spectral-Driven Iterative Reconstruction Technique. <i>PLoS ONE</i> , 2015, 10, e0124831.	2.5	33
169	Phase-Contrast Hounsfield Units of Fixated and Non-Fixated Soft-Tissue Samples. <i>PLoS ONE</i> , 2015, 10, e0137016.	2.5	25
170	Ex Vivo Perfusion-Simulation Measurements of Microbubbles as a Scattering Contrast Agent for Grating-Based X-Ray Dark-Field Imaging. <i>PLoS ONE</i> , 2015, 10, e0129512.	2.5	13
171	Toward Clinically Compatible Phase-Contrast Mammography. <i>PLoS ONE</i> , 2015, 10, e0130776.	2.5	41
172	Improved visualization of breast cancer features in multifocal carcinoma using phase-contrast and dark-field mammography: an ex vivo study. <i>European Radiology</i> , 2015, 25, 3659-3668.	4.5	41
173	Prediction of Vertebral Failure Load by Using X-Ray Vector Radiographic Imaging. <i>Radiology</i> , 2015, 275, 553-561.	7.3	10
174	Insights into the Skeletonization, Lifestyle, and Affinity of the Unusual Ediacaran Fossil <i>Corumbella</i> . <i>PLoS ONE</i> , 2015, 10, e0114219.	2.5	47
175	Statistical iterative reconstruction algorithm for X-ray phase-contrast CT. <i>Scientific Reports</i> , 2015, 5, 10452.	3.3	43
176	X-ray phase-contrast tomography with a compact laser-driven synchrotron source. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 5567-5572.	7.1	103
177	Speckle-based x-ray phase-contrast imaging with a laboratory source and the scanning technique. <i>Optics Letters</i> , 2015, 40, 2822.	3.3	42
178	Detection of sub-pixel fractures in X-ray dark-field tomography. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 121, 1243-1250.	2.3	15
179	Quantitative imaging using high-energy X-ray phase-contrast CT with a 70 kVp polychromatic X-ray spectrum. <i>Optics Express</i> , 2015, 23, 523.	3.4	35
180	X-ray nanotomography using near-field ptychography. <i>Optics Express</i> , 2015, 23, 12720.	3.4	34

#	ARTICLE	IF	CITATIONS
181	Characterization of near-field ptychography. <i>Optics Express</i> , 2015, 23, 19728.	3.4	24
182	X-ray computed tomography using curvelet sparse regularization. <i>Medical Physics</i> , 2015, 42, 1555-1565.	3.0	13
183	Multi-contrast 3D X-ray imaging of porous and composite materials. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	31
184	X-ray microtomography using correlation of near-field speckles for material characterization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 12569-12573.	7.1	33
185	Six-dimensional real and reciprocal space small-angle X-ray scattering tomography. <i>Nature</i> , 2015, 527, 353-356.	27.8	149
186	Monitoring moisture distribution in textile materials using grating interferometry and ptychographic X-ray imaging. <i>Textile Research Journal</i> , 2015, 85, 80-90.	2.2	3
187	Optimization of propagation-based phase-contrast imaging at a laboratory setup. <i>Optics Express</i> , 2015, 23, 30000.	3.4	0
188	Imaging Liver Lesions Using Grating-Based Phase-Contrast Computed Tomography with Bi-Lateral Filter Post-Processing. <i>PLoS ONE</i> , 2014, 9, e83369.	2.5	31
189	Visualizing Typical Features of Breast Fibroadenomas Using Phase-Contrast CT: An Ex-Vivo Study. <i>PLoS ONE</i> , 2014, 9, e97101.	2.5	29
190	X-Ray Phase-Contrast Tomography of Renal Ischemia-Reperfusion Damage. <i>PLoS ONE</i> , 2014, 9, e109562.	2.5	28
191	Regularized iterative integration combined with non-linear diffusion filtering for phase-contrast x-ray computed tomography. <i>Optics Express</i> , 2014, 22, 32107.	3.4	5
192	Simulated Cystic Renal Lesions: Quantitative X-ray Phase-Contrast CT—An in Vitro Phantom Study. <i>Radiology</i> , 2014, 272, 739-748.	7.3	15
193	Improved Diagnosis of Pulmonary Emphysema Using In Vivo Dark-Field Radiography. <i>Investigative Radiology</i> , 2014, 49, 653-658.	6.2	52
194	X-ray phase-contrast tomosynthesis for improved breast tissue discrimination. <i>European Journal of Radiology</i> , 2014, 83, 531-536.	2.6	19
195	Emerging Research on Bone Health Using High-Resolution CT and MRI. <i>Current Radiology Reports</i> , 2014, 2, 1.	1.4	3
196	Lung tumors on multimodal radiographs derived from grating-based X-ray imaging — A feasibility study. <i>Physica Medica</i> , 2014, 30, 352-357.	0.7	23
197	FMT-PCCT: Hybrid Fluorescence Molecular Tomography—X-Ray Phase-Contrast CT Imaging of Mouse Models. <i>IEEE Transactions on Medical Imaging</i> , 2014, 33, 1434-1446.	8.9	29
198	Fast one-dimensional wave-front propagation for x-ray differential phase-contrast imaging. <i>Biomedical Optics Express</i> , 2014, 5, 3739.	2.9	9

#	ARTICLE	IF	CITATIONS
199	Non-binary phase gratings for x-ray imaging with a compact Talbot interferometer. <i>Optics Express</i> , 2014, 22, 547.	3.4	27
200	Phase-Contrast CT: Qualitative and Quantitative Evaluation of Atherosclerotic Carotid Artery Plaque. <i>Radiology</i> , 2014, 271, 870-878.	7.3	62
201	Helical differential X-ray phase-contrast computed tomography. <i>Physica Medica</i> , 2014, 30, 374-379.	0.7	19
202	Correlation of X-Ray Vector Radiography to Bone Micro-Architecture. <i>Scientific Reports</i> , 2014, 4, 3695.	3.3	29
203	Bi-Directional X-Ray Phase-Contrast Mammography. <i>PLoS ONE</i> , 2014, 9, e93502.	2.5	34
204	An algebraic iterative reconstruction technique for differential X-ray phase-contrast computed tomography. <i>Zeitschrift Fur Medizinische Physik</i> , 2013, 23, 186-193.	1.5	25
205	Grating-based X-ray phase-contrast tomography of atherosclerotic plaque at high photon energies. <i>Zeitschrift Fur Medizinische Physik</i> , 2013, 23, 194-203.	1.5	23
206	Comparison of Contrast-to-Noise Ratios of Transmission and Dark-Field Signal in Grating-Based X-ray Imaging for Healthy Murine Lung Tissue. <i>Zeitschrift Fur Medizinische Physik</i> , 2013, 23, 236-242.	1.5	24
207	Quantitative X-ray phase-contrast computed tomography at 82 keV. <i>Optics Express</i> , 2013, 21, 4155.	3.4	59
208	X-ray grating-based phase tomography for 3D histology. <i>RSC Advances</i> , 2013, 3, 19816.	3.6	22
209	Assessment of grating-based X-ray phase-contrast CT for differentiation of invasive ductal carcinoma and ductal carcinoma in situ in an experimental ex vivo set-up. <i>European Radiology</i> , 2013, 23, 381-387.	4.5	45
210	Evaluation of the potential of phase-contrast computed tomography for improved visualization of cancerous human liver tissue. <i>Zeitschrift Fur Medizinische Physik</i> , 2013, 23, 204-211.	1.5	13
211	Evaluation of phase-contrast CT of breast tissue at conventional X-ray sources – presentation of selected findings. <i>Zeitschrift Fur Medizinische Physik</i> , 2013, 23, 212-221.	1.5	36
212	Grating-based X-ray phase contrast for biomedical imaging applications. <i>Zeitschrift Fur Medizinische Physik</i> , 2013, 23, 176-185.	1.5	78
213	Phase retrieval from one partial derivative. <i>Optics Letters</i> , 2013, 38, 4813.	3.3	21
214	Pulmonary Emphysema Diagnosis with a Preclinical Small-Animal X-ray Dark-Field Scatter-Contrast Scanner. <i>Radiology</i> , 2013, 269, 427-433.	7.3	109
215	Coherent Superposition in Grating-Based Directional Dark-Field Imaging. <i>PLoS ONE</i> , 2013, 8, e61268.	2.5	24
216	Translation of Atherosclerotic Plaque Phase-Contrast CT Imaging from Synchrotron Radiation to a Conventional Lab-Based X-Ray Source. <i>PLoS ONE</i> , 2013, 8, e73513.	2.5	25

#	ARTICLE	IF	CITATIONS
217	Imaging of Metastatic Lymph Nodes by X-ray Phase-Contrast Micro-Tomography. PLoS ONE, 2013, 8, e54047.	2.5	13
218	X-Ray Phase-Contrast CT of a Pancreatic Ductal Adenocarcinoma Mouse Model. PLoS ONE, 2013, 8, e58439.	2.5	28
219	Diagnosing and Mapping Pulmonary Emphysema on X-Ray Projection Images: Incremental Value of Grating-Based X-Ray Dark-Field Imaging. PLoS ONE, 2013, 8, e59526.	2.5	44
220	Aligned hemozoin crystals in curved clusters in malarial red blood cells revealed by nanoprobe X-ray Fe fluorescence and diffraction. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 11184-11187.	7.1	44
221	Numerical comparison of X-ray differential phase contrast and attenuation contrast. Biomedical Optics Express, 2012, 3, 1141.	2.9	13
222	A reconstruction method for cone-beam differential x-ray phase-contrast computed tomography. Optics Express, 2012, 20, 21512.	3.4	19
223	Emphysema diagnosis using X-ray dark-field imaging at a laser-driven compact synchrotron light source. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 17880-17885.	7.1	167
224	Experimental results from a preclinical X-ray phase-contrast CT scanner. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15691-15696.	7.1	136
225	Multimodal hard X-ray imaging of a mammography phantom at a compact synchrotron light source. Journal of Synchrotron Radiation, 2012, 19, 525-529.	2.4	33
226	Beam hardening effects in grating-based x-ray phase-contrast imaging. Medical Physics, 2011, 38, 1189-1195.	3.0	48
227	A tilted grating interferometer for full vector field differential x-ray phase contrast tomography. Optics Express, 2011, 19, 24890.	3.4	20
228	X-ray phase-contrast tomography of porcine fat and rind. Meat Science, 2011, 88, 379-383.	5.5	33
229	X-ray grating interferometer for materials-science imaging at a low-coherent wiggler source. Review of Scientific Instruments, 2011, 82, 113711.	1.3	23
230	Development of a prototype gantry system for preclinical x-ray phase-contrast computed tomography. Medical Physics, 2011, 38, 5910-5915.	3.0	44
231	Toward Clinical X-ray Phase-Contrast CT. Investigative Radiology, 2010, 45, 445-452.	6.2	152
232	Directional x-ray dark-field imaging of strongly ordered systems. Physical Review B, 2010, 82, .	3.2	83
233	Ptychographic characterization of the wavefield in the focus of reflective hard X-ray optics. Ultramicroscopy, 2010, 110, 325-329.	1.9	117
234	Advanced contrast modalities for X-ray radiology: Phase-contrast and dark-field imaging using a grating interferometer. Zeitschrift Fur Medizinische Physik, 2010, 20, 7-16.	1.5	60

#	ARTICLE	IF	CITATIONS
235	Coherence and wavefront characterization of Si-111 monochromators using double-grating interferometry. <i>Journal of Synchrotron Radiation</i> , 2010, 17, 299-307.	2.4	38
236	Ptychographic X-ray computed tomography at the nanoscale. <i>Nature</i> , 2010, 467, 436-439.	27.8	766
237	High-resolution tomographic imaging of a human cerebellum: comparison of absorption and grating-based phase contrast. <i>Journal of the Royal Society Interface</i> , 2010, 7, 1665-1676.	3.4	149
238	Quantitative biological imaging by ptychographic x-ray diffraction microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 529-534.	7.1	242
239	Probe retrieval in ptychographic coherent diffractive imaging. <i>Ultramicroscopy</i> , 2009, 109, 338-343.	1.9	556
240	Hard X-ray phase-contrast imaging with the Compact Light Source based on inverse Compton X-rays. <i>Journal of Synchrotron Radiation</i> , 2009, 16, 43-47.	2.4	128
241	Advanced phase-contrast imaging using a grating interferometer. <i>Journal of Synchrotron Radiation</i> , 2009, 16, 562-572.	2.4	102
242	Quantitative phase-contrast tomography of a liquid phantom using a conventional x-ray tube source. <i>Optics Express</i> , 2009, 17, 10010.	3.4	95
243	Influence of the overlap parameter on the convergence of the ptychographical iterative engine. <i>Ultramicroscopy</i> , 2008, 108, 481-487.	1.9	243
244	High-Resolution Scanning X-ray Diffraction Microscopy. <i>Science</i> , 2008, 321, 379-382.	12.6	1,152
245	X-ray phase radiography and tomography of soft tissue using grating interferometry. <i>European Journal of Radiology</i> , 2008, 68, S13-S17.	2.6	70
246	High-resolution differential phase contrast imaging using a magnifying projection geometry with a microfocus x-ray source. <i>Applied Physics Letters</i> , 2007, 90, 224101.	3.3	112
247	X-ray phase contrast imaging using a grating interferometer. <i>Europhysics News</i> , 2006, 37, 13-15.	0.3	8
248	Phase retrieval and differential phase-contrast imaging with low-brilliance X-ray sources. <i>Nature Physics</i> , 2006, 2, 258-261.	16.7	1,654
249	Substrate morphology repetition in $\alpha$ -polymer films. <i>Physica B: Condensed Matter</i> , 2005, 357, 136-140.	2.7	2
250	X-ray beam-position monitoring in the sub-micrometre and sub-second regime. <i>Journal of Synchrotron Radiation</i> , 2005, 12, 795-799.	2.4	15
251	X-ray phase imaging with a grating interferometer. <i>Optics Express</i> , 2005, 13, 6296.	3.4	1,135
252	Coherent grazing exit x-ray scattering geometry for probing the structure of thin films. <i>Applied Physics Letters</i> , 2004, 84, 1847-1849.	3.3	18

#	ARTICLE	IF	CITATIONS
253	Coherent x-ray scattering. <i>Journal of Physics Condensed Matter</i> , 2004, 16, 5003-5030.	1.8	101
254	Enhancement of coherent X-ray diffraction from nanocrystals by introduction of X-ray optics. <i>Optics Express</i> , 2003, 11, 2329.	3.4	28
255	Reflection of waveguided X-rays in two-dimensional nanostructures. <i>Journal of Applied Crystallography</i> , 2002, 35, 430-433.	4.5	25
256	X-ray Stain Localization with Near-Field Ptychographic Computed Tomography. <i>Advanced Science</i> , 0, , 2201723.	11.2	2