Franz Pfeiffer

List of Publications by Year in Descending Order

253 papers	10,029 citations	41 h-index	93 g-index
267 ext. papers	12,084 ext. citations	6 avg, IF	6.31 L-index

#	Paper	IF	Citations
253	Qualitative and Quantitative Assessment of Emphysema Using Dark-Field Chest Radiography.. *Radiology*, **2022**, 212025	20.5	3
252	Dark-field computed tomography reaches the human scale.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119,	11.5	5
251	X-ray Dark-field Chest Radiography of Lymphangioleiomyomatosis.. *Radiology*, **2022**, 212490	20.5	0
250	Fabrication of X-ray absorption gratings by centrifugal deposition of bimodal tungsten particles in high aspect ratio silicon templates.. *Scientific Reports*, **2022**, 12, 5405	4.9	0
249	Dark-field chest x-ray imaging: first experience in patients with alpha1-antitrypsin deficiency.. *European Radiology Experimental*, **2022**, 6, 9	4.5	0
248	X-ray Dark-Field CT for Early Detection of Radiation-induced Lung Injury in a Murine Model.. *Radiology*, **2022**, 212332	20.5	0
247	Simultaneous two-color X-ray absorption spectroscopy using Laue crystals at an inverse-compton scattering X-ray facility. *Journal of Synchrotron Radiation*, **2021**, 28, 1874-1880	2.4	
246	On the Mechanism of Catalytic Decarboxylation of Carboxylic Acids on Carbon-Supported Palladium Hydride. *ACS Catalysis*, **2021**, 11, 14625-14634	13.1	2
245	X-ray dark-field chest imaging for detection and quantification of emphysema in patients with chronic obstructive pulmonary disease: a diagnostic accuracy study. *The Lancet Digital Health*, **2021**, 3, e733-e744	14.4	17
244	Quantitative X-ray phase contrast computed tomography with grating interferometry : Biomedical applications of quantitative X-ray grating-based phase contrast computed tomography. *European Journal of Nuclear Medicine and Molecular Imaging*, **2021**, 48, 4171-4188	8.8	2
243	Detection of Bone Marrow Edema in Patients with Osteoid Osteoma Using Three-Material Decomposition with Dual-Layer Spectral CT. *Diagnostics*, **2021**, 11,	3.8	1
242	Direct Differentiation of Pathological Changes in the Human Lung Parenchyma With Grating-Based Spectral X-ray Dark-Field Radiography. *IEEE Transactions on Medical Imaging*, **2021**, 40, 1568-1578	11.7	0
241	Correlation of image quality parameters with tube voltage in X-ray dark-field chest radiography: a phantom study. *Scientific Reports*, **2021**, 11, 14130	4.9	0
240	X-ray dark-field tomography reveals tooth cracks. *Scientific Reports*, **2021**, 11, 14017	4.9	1
239	Opportunistic osteoporosis screening: contrast-enhanced dual-layer spectral CT provides accurate measurements of vertebral bone mineral density. *European Radiology*, **2021**, 31, 3147-3155	8	5
238	Experimental and numerical analysis of void structure in random packed beds of spheres. *Powder Technology*, **2021**, 380, 613-628	5.2	11
237	Early detection of radiation-induced lung damage with X-ray dark-field radiography in mice. *European Radiology*, **2021**, 31, 4175-4183	8	4

236	3D-Non-destructive Imaging through Heavy-Metal Eosin Salt Contrast Agents. *Chemistry - A European Journal*, **2021**, 27, 4561-4566	4.8	4
235	Heterogeneity of Graphite Lithiation in State-of-the-Art Cylinder-Type Li-Ion Cells. *Batteries and Supercaps*, **2021**, 4, 327-335	5.6	6
234	Whole-body x-ray dark-field radiography of a human cadaver. *European Radiology Experimental*, **2021**, 5, 6	4.5	3
233	Heterogeneity of Graphite Lithiation in State-of-the-Art Cylinder-Type Li-Ion Cells. *Batteries and Supercaps*, **2021**, 4, 251-251	5.6	2
232	Lung nodule detection in chest X-rays using synthetic ground-truth data comparing CNN-based diagnosis to human performance. *Scientific Reports*, **2021**, 11, 15857	4.9	4
231	Dosimetry on first clinical dark-field chest radiography. *Medical Physics*, **2021**, 48, 6152-6159	4.4	2
230	X-ray Dark-Field Chest Imaging: Qualitative and Quantitative Results in Healthy Humans. *Radiology*, **2021**, 301, 389-395	20.5	7
229	In-vivo X-ray dark-field computed tomography for the detection of radiation-induced lung damage in mice. *Physics and Imaging in Radiation Oncology*, **2021**, 20, 11-16	3.1	0
228	Retrieval of 3D information in X-ray dark-field imaging with a large field of view. *Scientific Reports*, **2021**, 11, 23504	4.9	
227	Energy-Dispersive X-ray Absorption Spectroscopy with an Inverse Compton Source. *Scientific Reports*, **2020**, 10, 8772	4.9	15
226	Nanoscopic X-ray tomography for correlative microscopy of a small meiofaunal sea-cucumber. *Scientific Reports*, **2020**, 10, 3960	4.9	8
225	Qualitative comparison of non-destructive methods for inspection of carbon fiber-reinforced polymer laminates. *Journal of Composite Materials*, **2020**, 54, 4325-4337	2.7	6
224	A high visibility Talbot-Lau neutron grating interferometer to investigate stress-induced magnetic degradation in electrical steel. *Scientific Reports*, **2020**, 10, 1764	4.9	14
223	An approach to construct a three-dimensional isogeometric model from CT scan data with an application to the bridge of a violin. *Computer Aided Geometric Design*, **2020**, 78, 101815	1.2	1
222	Grating-based phase-contrast CT (PCCT): histopathological correlation of human liver cirrhosis and hepatocellular carcinoma specimen. *Journal of Clinical Pathology*, **2020**, 73, 483-487	3.9	2
221	Phase-Vortex Removal for Quantitative X-Ray Nanotomography with Near-Field Ptychography. *Physical Review Applied*, **2020**, 14,	4.3	3
220	Methods for dynamic synchrotron X-ray respiratory imaging in live animals. *Journal of Synchrotron Radiation*, **2020**, 27, 164-175	2.4	11
219	The versatile X-ray beamline of the Munich Compact Light Source: design, instrumentation and applications. *Journal of Synchrotron Radiation*, **2020**, 27, 1395-1414	2.4	17

218	K-edge subtraction imaging for iodine and calcium separation at a compact synchrotron x-ray source. *Journal of Medical Imaging*, **2020**, 7, 023504	2.6	5
217	X-ray phase tomography with near-field speckles for three-dimensional virtual histology. *Optica*, **2020**, 7, 1221	8.6	15
216	Dose and spatial resolution analysis of grating-based phase-contrast mammography using an inverse Compton x-ray source. *Journal of Medical Imaging*, **2020**, 7, 023505	2.6	
215	Advanced X-ray Imaging Technology. *Recent Results in Cancer Research*, **2020**, 216, 3-30	1.5	5
214	Spectroscopic imaging at compact inverse Compton X-ray sources. *Physica Medica*, **2020**, 79, 137-144	2.7	3
213	Spectral-detector based x-ray absorptiometry (SDXA): in-vivo bone mineral density measurements in patients with and without osteoporotic fractures. *Biomedical Physics and Engineering Express*, **2020**, 6, 055021	1.5	3
212	A proof of principle experiment for microbeam radiation therapy at the Munich compact light source. *Radiation and Environmental Biophysics*, **2020**, 59, 111-120	2	9
211	Towards subject-level cerebral infarction classification of CT scans using convolutional networks. *PLoS ONE*, **2020**, 15, e0235765	3.7	1
210	Imaging characteristics of intravascular spherical contrast agents for grating-based x-ray dark-field imaging - effects of concentrations, spherical sizes and applied voltage. *Scientific Reports*, **2020**, 10, 9405	4.9	0
209	Dynamic K-edge Subtraction Fluoroscopy at a Compact Inverse-Compton Synchrotron X-ray Source. *Scientific Reports*, **2020**, 10, 9612	4.9	5
208	A robust convolutional neural network for lung nodule detection in the presence of foreign bodies. *Scientific Reports*, **2020**, 10, 12987	4.9	10
207	A proof-of principal study using phase-contrast imaging for the detection of large airway pathologies after lung transplantation. *Scientific Reports*, **2020**, 10, 18444	4.9	
206	Technical and dosimetric realization of in vivo x-ray microbeam irradiations at the Munich Compact Light Source. *Medical Physics*, **2020**, 47, 5183-5193	4.4	2
205	Grating-based spectral X-ray dark-field imaging for correlation with structural size measures. *Scientific Reports*, **2020**, 10, 13195	4.9	6
204	X-ray Dark-Field Radiography: Potential for Visualization of Monosodium Urate Deposition. *Investigative Radiology*, **2020**, 55, 494-498	10.1	3
203	Photon-counting spectral basis component material decomposition for musculoskeletal radiographs. *Scientific Reports*, **2020**, 10, 13889	4.9	3
202	MCL-1 gains occur with high frequency in lung adenocarcinoma and can be targeted therapeutically. *Nature Communications*, **2020**, 11, 4527	17.4	10
201	Functional morphology of a lobopod: case study of an onychophoran leg. *Royal Society Open Science*, **2019**, 6, 191200	3.3	7

200	Imaging features in post-mortem x-ray dark-field chest radiographs and correlation with conventional x-ray and CT. *European Radiology Experimental*, **2019**, 3, 25	4.5	15
199	K-edge Subtraction Computed Tomography with a Compact Synchrotron X-ray Source. *Scientific Reports*, **2019**, 9, 13332	4.9	8
198	X-ray imaging of a water bear offers a new look at tardigrade internal anatomy. *Zoological Letters*, **2019**, 5, 14	3	6
197	Visualizing treatment delivery and deposition in mouse lungs using in vivo x-ray imaging. *Journal of Controlled Release*, **2019**, 307, 282-291	11.7	16
196	Contrast-to-noise ratios and thickness-normalized, ventilation-dependent signal levels in dark-field and conventional in vivo thorax radiographs of two pigs. *PLoS ONE*, **2019**, 14, e0217858	3.7	8
195	Full-field structured-illumination super-resolution X-ray transmission microscopy. *Nature Communications*, **2019**, 10, 2494	17.4	6
194	Bone mineral density measurements derived from dual-layer spectral CT enable opportunistic screening for osteoporosis. *European Radiology*, **2019**, 29, 6355-6363	8	24
193	Paleometry as a key tool to deal with paleobiological and astrobiological issues: some contributions and reflections on the Brazilian fossil record. *International Journal of Astrobiology*, **2019**, 18, 575-589	1.4	2
192	Perfusion-ventilation CT via three-material differentiation in dual-layer CT: a feasibility study. *Scientific Reports*, **2019**, 9, 5837	4.9	5
191	Metric-guided regularisation parameter selection for statistical iterative reconstruction in computed tomography. *Scientific Reports*, **2019**, 9, 6016	4.9	2
190	A step towards valid detection and quantification of lung cancer volume in experimental mice with contrast agent-based X-ray microtomography. *Scientific Reports*, **2019**, 9, 1325	4.9	8
189	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. *PLoS ONE*, **2019**, 14, e0212106	3.7	4
188	Differentiation between blood and iodine in a bovine brain-Initial experience with Spectral Photon-Counting Computed Tomography (SPCCT). *PLoS ONE*, **2019**, 14, e0212679	3.7	18
187	Quantitative dual-energy micro-CT with a photon-counting detector for material science and non-destructive testing. *PLoS ONE*, **2019**, 14, e0219659	3.7	7
186	Optimization of tube voltage in X-ray dark-field chest radiography. *Scientific Reports*, **2019**, 9, 8699	4.9	19
185	Multimodal Precision Imaging of Pulmonary Nanoparticle Delivery in Mice: Dynamics of Application, Spatial Distribution, and Dosimetry. *Small*, **2019**, 15, e1904112	11	15
184	Optimization of in vivo murine X-ray dark-field computed tomography. *Review of Scientific Instruments*, **2019**, 90, 103103	1.7	1
183	Dynamic Quantitative Iodine Myocardial Perfusion Imaging with Dual-Layer CT using a Porcine Model. *Scientific Reports*, **2019**, 9, 16046	4.9	4

182	Device for source position stabilization and beam parameter monitoring at inverse Compton X-ray sources. *Journal of Synchrotron Radiation*, **2019**, 26, 1546-1553	2.4	8
181	Quality and parameter control of X-ray absorption gratings by angular X-ray transmission. *Optics Express*, **2019**, 27, 15943-15955	3.3	3
180	DXA-equivalent quantification of bone mineral density using dual-layer spectral CT scout scans. *European Radiology*, **2019**, 29, 4624-4634	8	12
179	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. *PLoS ONE*, **2019**, 14, e0210291	3.7	7
178	Three-dimensional virtual histology enabled through cytoplasm-specific X-ray stain for microscopic and nanoscopic computed tomography. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 2293-2298	11.5	55
177	Experimental feasibility of spectral photon-counting computed tomography with two contrast agents for the detection of endoleaks following endovascular aortic repair. *European Radiology*, **2018**, 28, 3318-3325	8	47
176	Propagation-based phase-contrast x-ray tomography of cochlea using a compact synchrotron source. *Scientific Reports*, **2018**, 8, 4922	4.9	13
175	Depiction of pneumothoraces in a large animal model using x-ray dark-field radiography. *Scientific Reports*, **2018**, 8, 2602	4.9	24
174	Incorporating a Noise Reduction Technique Into X-Ray Tensor Tomography. *IEEE Transactions on Computational Imaging*, **2018**, 4, 137-146	4.5	2
173	Dual-energy CT: a phantom comparison of different platforms for abdominal imaging. *European Radiology*, **2018**, 28, 2745-2755	8	65
172	X-Ray Dark-field Imaging to Depict Acute Lung Inflammation in Mice. *Scientific Reports*, **2018**, 8, 2096	4.9	18
171	Assessment of quantification accuracy and image quality of a full-body dual-layer spectral CT system. *Journal of Applied Clinical Medical Physics*, **2018**, 19, 204-217	2.3	48
170	X-ray ptychography. *Nature Photonics*, **2018**, 12, 9-17	33.9	252
169	Tilted grating phase-contrast computed tomography using statistical iterative reconstruction. *Scientific Reports*, **2018**, 8, 6608	4.9	3
168	Qualitative and Quantitative Evaluation of Structural Myocardial Alterations by Grating-Based Phase-Contrast Computed Tomography. *Investigative Radiology*, **2018**, 53, 26-34	10.1	7
167	Analysis and correction of bias induced by phase stepping jitter in grating-based X-ray phase-contrast imaging. *Optics Express*, **2018**, 26, 12707-12722	3.3	12
166	Accurate effective atomic number determination with polychromatic grating-based phase-contrast computed tomography. *Optics Express*, **2018**, 26, 15153-15166	3.3	20
165	Electron Density of Adipose Tissues Determined by Phase-Contrast Computed Tomography Provides a Measure for Mitochondrial Density and Fat Content. *Frontiers in Physiology*, **2018**, 9, 707	4.6	6

164	CT scanning of membrane feed spacers Impact of spacer model accuracy on hydrodynamic and solute transport modeling in membrane feed channels. *Journal of Membrane Science*, **2018**, 564, 133-145	9.6	13
163	Simultaneous wood and metal particle detection on dark-field radiography. *European Radiology Experimental*, **2018**, 2, 1	4.5	8
162	In vivo Dynamic Phase-Contrast X-ray Imaging using a Compact Light Source. *Scientific Reports*, **2018**, 8, 6788	4.9	15
161	The Munich Compact Light Source: Biomedical Research At a Laboratory-Scale Inverse-Compton Synchrotron X-ray Source. *Microscopy and Microanalysis*, **2018**, 24, 984-985	0.5	4
160	Propagation-based phase-contrast tomography of a guinea pig inner ear with cochlear implant using a model-based iterative reconstruction algorithm. *Biomedical Optics Express*, **2018**, 9, 5330-5339	3.5	2
159	Laboratory-based X-ray NanoCT Explores Morphology of a Zebrafish Embryo. *Microscopy and Microanalysis*, **2018**, 24, 184-185	0.5	2
158	The Munich Compact Light Source: Flux Doubling and Source Position Stabilization At a Compact Inverse-Compton Synchrotron X-ray Source.. *Microscopy and Microanalysis*, **2018**, 24, 316-317	0.5	2
157	Nucleus-specific X-ray stain for 3D virtual histology. *Scientific Reports*, **2018**, 8, 17855	4.9	16
156	Bismuth-Oxo-Clusters for Soft-Tissue Staining. *Microscopy and Microanalysis*, **2018**, 24, 368-369	0.5	
155	Dual-layer spectral computed tomography: measuring relative electron density. *European Radiology Experimental*, **2018**, 2, 20	4.5	16
154	K-edge subtraction imaging for coronary angiography with a compact synchrotron X-ray source. *PLoS ONE*, **2018**, 13, e0208446	3.7	19
153	Evaluation of a preclinical photon-counting CT prototype for pulmonary imaging. *Scientific Reports*, **2018**, 8, 17386	4.9	21
152	Direct quantitative material decomposition employing grating-based X-ray phase-contrast CT. *Scientific Reports*, **2018**, 8, 16394	4.9	21
151	Brain Connectivity Exposed by Anisotropic X-ray Dark-field Tomography. *Scientific Reports*, **2018**, 8, 14345	4.9	9
150	X-ray dark-field imaging of the human lung-A feasibility study on a deceased body. *PLoS ONE*, **2018**, 13, e0204565	3.7	46
149	GPU Accelerated Image Processing in CCD-Based Neutron Imaging. *Journal of Imaging*, **2018**, 4, 104	3.1	0
148	Dose-compatible grating-based phase-contrast mammography on mastectomy specimens using a compact synchrotron source. *Scientific Reports*, **2018**, 8, 15700	4.9	10
147	High resolution laboratory grating-based X-ray phase-contrast CT. *Scientific Reports*, **2018**, 8, 15884	4.9	19

146	Spectral Angiography Material Decomposition Using an Empirical Forward Model and a Dictionary-Based Regularization. *IEEE Transactions on Medical Imaging*, **2018**, 37, 2298-2309	11.7	9
145	Dual-layer spectral computed tomography: Virtual non-contrast in comparison to true non-contrast images. *European Journal of Radiology*, **2018**, 104, 108-114	4.7	45
144	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	3.9	6
143	Large field-of-view tiled grating structures for X-ray phase-contrast imaging. *Review of Scientific Instruments*, **2017**, 88, 015104	1.7	30
142	Fourier domain image fusion for differential X-ray phase-contrast breast imaging. *European Journal of Radiology*, **2017**, 89, 27-32	4.7	3
141	Mono-Energy Coronary Angiography with a Compact Synchrotron Source. *Scientific Reports*, **2017**, 7, 42211	4.9	20
140	Large-area full field x-ray differential phase-contrast imaging using 2D tiled gratings. *Journal Physics D: Applied Physics*, **2017**, 50, 225401	3	14
139	Grating-based X-ray dark-field computed tomography for the characterization of friction stir welds: A feasibility study. *Materials Characterization*, **2017**, 129, 143-148	3.9	8
138	Ex Vivo Assessment of Coronary Atherosclerotic Plaque by Grating-Based Phase-Contrast Computed Tomography: Correlation With Optical Coherence Tomography. *Investigative Radiology*, **2017**, 52, 223-231	10.1	5
137	Disorientation angle distribution of primary particles in potash alum aggregates. *Journal of Crystal Growth*, **2017**, 467, 93-106	1.6	9
136	X-ray Dark-field Radiography - In-Vivo Diagnosis of Lung Cancer in Mice. *Scientific Reports*, **2017**, 7, 402	4.9	42
135	Spectral Photon-counting CT: Initial Experience with Dual-Contrast Agent K-Edge Colonography. *Radiology*, **2017**, 283, 723-728	20.5	83
134	Ex vivo characterization of pathologic fluids with quantitative phase-contrast computed tomography. *European Journal of Radiology*, **2017**, 86, 99-104	4.7	2
133	Advanced Non-Destructive Ocular Visualization Methods by Improved X-Ray Imaging Techniques. *PLoS ONE*, **2017**, 12, e0170633	3.7	3
132	Revising the lower statistical limit of x-ray grating-based phase-contrast computed tomography. *PLoS ONE*, **2017**, 12, e0184217	3.7	2
131	Increased cell survival and cytogenetic integrity by spatial dose redistribution at a compact synchrotron X-ray source. *PLoS ONE*, **2017**, 12, e0186005	3.7	11
130	Simultaneous dual-contrast multi-phase liver imaging using spectral photon-counting computed tomography: a proof-of-concept study. *European Radiology Experimental*, **2017**, 1, 25	4.5	40
129	Dark-field imaging in coronary atherosclerosis. *European Journal of Radiology*, **2017**, 94, 38-45	4.7	6

128	X-ray dark-field radiography facilitates the diagnosis of pulmonary fibrosis in a mouse model. *Scientific Reports*, **2017**, 7, 340	4.9	17
127	Propagation-based Phase-Contrast X-ray Imaging at a Compact Light Source. *Scientific Reports*, **2017**, 7, 4908	4.9	32
126	Grating-based phase-contrast and dark-field computed tomography: a single-shot method. *Scientific Reports*, **2017**, 7, 7476	4.9	20
125	Bone mineral density measurements in vertebral specimens and phantoms using dual-layer spectral computed tomography. *Scientific Reports*, **2017**, 7, 17519	4.9	25
124	Trabecular bone anisotropy imaging with a compact laser-undulator synchrotron x-ray source. *Scientific Reports*, **2017**, 7, 14477	4.9	20
123	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	11.5	41
122	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	8	36
121	In-vivo X-ray Dark-Field Chest Radiography of a Pig. *Scientific Reports*, **2017**, 7, 4807	4.9	69
120	Non-iterative Directional Dark-field Tomography. *Scientific Reports*, **2017**, 7, 3307	4.9	9
119	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	4.9	11
118	Dual-energy micro-CT with a dual-layer, dual-color, single-crystal scintillator. *Optics Express*, **2017**, 25, 6924-6935	3.3	7
117	The Munich Compact Light Source: initial performance measures. *Journal of Synchrotron Radiation*, **2016**, 23, 1137-42	2.4	102
116	Hydrophobic Properties of Biofilm-Enriched Hybrid Mortar. *Advanced Materials*, **2016**, 28, 8138-8143	24	27
115	Biofilms: Hydrophobic Properties of Biofilm-Enriched Hybrid Mortar (Adv. Mater. 37/2016). *Advanced Materials*, **2016**, 28, 8315-8315	24	
114	Shape Identification of Primary Particles in Potash Alum Aggregates Using Three-Dimensional Tomography Data. *Crystal Growth and Design*, **2016**, 16, 2685-2699	3.5	12
113	Penalized maximum likelihood reconstruction for x-ray differential phase-contrast tomography. *Medical Physics*, **2016**, 43, 188	4.4	23
112	Quantitative Three-Dimensional Imaging of Lipid, Protein, and Water Contents via X-Ray Phase-Contrast Tomography. *PLoS ONE*, **2016**, 11, e0151889	3.7	13
111	Mass Density Measurement of Mineralized Tissue with Grating-Based X-Ray Phase Tomography. *PLoS ONE*, **2016**, 11, e0167797	3.7	12

110	Low-dose, phase-contrast mammography with high signal-to-noise ratio. *Biomedical Optics Express*, **2016**, 7, 381-91	3.5	14
109	X-ray deconvolution microscopy. *Biomedical Optics Express*, **2016**, 7, 1227-39	3.5	7
108	Facilitated Diagnosis of Pneumothoraces in Newborn Mice Using X-ray Dark-Field Radiography. *Investigative Radiology*, **2016**, 51, 597-601	10.1	31
107	Improved Diagnostics by Assessing the Micromorphology of Breast Calcifications via X-Ray Dark-Field Radiography. *Scientific Reports*, **2016**, 6, 36991	4.9	17
106	Hard X-ray phase-contrast tomography of non-homogeneous specimens: grating interferometry versus propagation-based imaging. *Journal of Synchrotron Radiation*, **2016**, 23, 1202-9	2.4	10
105	Visualization of neonatal lung injury associated with mechanical ventilation using x-ray dark-field radiography. *Scientific Reports*, **2016**, 6, 24269	4.9	28
104	Novelty detection of foreign objects in food using multi-modal X-ray imaging. *Food Control*, **2016**, 67, 39-47	6.2	27
103	AHA classification of coronary and carotid atherosclerotic plaques by grating-based phase-contrast computed tomography. *European Radiology*, **2016**, 26, 3223-33	8	24
102	Dentinal tubules revealed with X-ray tensor tomography. *Dental Materials*, **2016**, 32, 1189-95	5.7	14
101	Statistical iterative reconstruction algorithm for X-ray phase-contrast CT. *Scientific Reports*, **2015**, 5, 10452	4.9	35
100	X-ray phase-contrast tomography with a compact laser-driven synchrotron source. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 5567-72	11.5	77
99	Speckle-based x-ray phase-contrast imaging with a laboratory source and the scanning technique. *Optics Letters*, **2015**, 40, 2822-5	3	35
98	Detection of sub-pixel fractures in X-ray dark-field tomography. *Applied Physics A: Materials Science and Processing*, **2015**, 121, 1243-1250	2.6	13
97	Quantitative imaging using high-energy X-ray phase-contrast CT with a 70 kVp polychromatic X-ray spectrum. *Optics Express*, **2015**, 23, 523-35	3.3	27
96	X-ray nanotomography using near-field ptychography. *Optics Express*, **2015**, 23, 12720-31	3.3	28
95	Characterization of near-field ptychography. *Optics Express*, **2015**, 23, 19728-42	3.3	18
94	X-ray computed tomography using curvelet sparse regularization. *Medical Physics*, **2015**, 42, 1555-65	4.4	11
93	Multi-contrast 3D X-ray imaging of porous and composite materials. *Applied Physics Letters*, **2015**, 106, 154102	3.4	23

92	X-ray microtomography using correlation of near-field speckles for material characterization. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 12569-73	11.5	26
91	Six-dimensional real and reciprocal space small-angle X-ray scattering tomography. *Nature*, **2015**, 527, 353-6	50.4	114
90	Monitoring moisture distribution in textile materials using grating interferometry and ptychographic X-ray imaging. *Textile Reseach Journal*, **2015**, 85, 80-90	1.7	2
89	Absorption and Phase Contrast X-Ray Imaging in Paleontology Using Laboratory and Synchrotron Sources. *Microscopy and Microanalysis*, **2015**, 21, 1288-95	0.5	3
88	Constrained X-ray tensor tomography reconstruction. *Optics Express*, **2015**, 23, 15134-51	3.3	21
87	Lens-term- and edge-effect in X-ray grating interferometry. *Biomedical Optics Express*, **2015**, 6, 4812-24	3.5	11
86	Contrast-to-noise ratio optimization for a prototype phase-contrast computed tomography scanner. *Review of Scientific Instruments*, **2015**, 86, 123705	1.7	4
85	Improved In vivo Assessment of Pulmonary Fibrosis in Mice using X-Ray Dark-Field Radiography. *Scientific Reports*, **2015**, 5, 17492	4.9	51
84	Simulations of x-ray speckle-based dark-field and phase-contrast imaging with a polychromatic beam. *Journal of Applied Physics*, **2015**, 118, 113105	2.5	27
83	Details aus dem Inneren eines Zahns. *Stomatologie*, **2015**, 112, 323-324		
82	X-ray dark-field vector radiography-a novel technique for osteoporosis imaging. *Journal of Computer Assisted Tomography*, **2015**, 39, 286-9	2.2	10
81	X-ray phase-contrast computed tomography of human coronary arteries. *Investigative Radiology*, **2015**, 50, 686-94	10.1	13
80	In Vivo Dark-Field Radiography for Early Diagnosis and Staging of Pulmonary Emphysema. *Investigative Radiology*, **2015**, 50, 430-5	10.1	55
79	3D algebraic iterative reconstruction for cone-beam x-ray differential phase-contrast computed tomography. *PLoS ONE*, **2015**, 10, e0117502	3.7	12
78	Reduction of metal artifact in single photon-counting computed tomography by spectral-driven iterative reconstruction technique. *PLoS ONE*, **2015**, 10, e0124831	3.7	20
77	Phase-Contrast Hounsfield Units of Fixated and Non-Fixated Soft-Tissue Samples. *PLoS ONE*, **2015**, 10, e0137016	3.7	20
76	Ex Vivo Perfusion-Simulation Measurements of Microbubbles as a Scattering Contrast Agent for Grating-Based X-Ray Dark-Field Imaging. *PLoS ONE*, **2015**, 10, e0129512	3.7	11
75	Toward Clinically Compatible Phase-Contrast Mammography. *PLoS ONE*, **2015**, 10, e0130776	3.7	37

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