Kaye S Morgan

List of Publications by Year
in descending order

74 papers	1,351 citations	331259 21 h-index	377514 34 g-index
76 all docs	76 docs citations	76 times ranked	1218 citing authors

#	Article	IF	Citations
1	X-ray phase imaging with a paper analyzer. Applied Physics Letters, 2012, 100, .	1.5	209
2	Quantitative single-exposure x-ray phase contrast imaging using a single attenuation grid. Optics Express, 2011, 19, 19781.	1.7	84
3	Highâ€resolution visualization of airspace structures in intact mice via synchrotron phaseâ€contrast Xâ€ray imaging (PCXI). Journal of Anatomy, 2008, 213, 217-227.	0.9	54
4	Quantification of heterogeneity in lung disease with image-based pulmonary function testing. Scientific Reports, 2016, 6, 29438.	1.6	50
5	Experimental methods for flow and aerosol measurements in human airways and their replicas. European Journal of Pharmaceutical Sciences, 2018, 113, 95-131.	1.9	46
6	In situ phase contrast X-ray brain CT. Scientific Reports, 2018, 8, 11412.	1.6	39
7	A sensitive x-ray phase contrast technique for rapid imaging using a single phase grid analyzer. Optics Letters, 2013, 38, 4605.	1.7	38
8	Propagation-based Phase-Contrast X-ray Imaging at a Compact Light Source. Scientific Reports, 2017, 7, 4908.	1.6	38
9	Quantitative x-ray phase-contrast imaging using a single grating of comparable pitch to sample feature size. Optics Letters, 2011, 36, 55.	1.7	36
10	In Vivo X-Ray Imaging Reveals Improved Airway Surface Hydration after a Therapy Designed for Cystic Fibrosis. American Journal of Respiratory and Critical Care Medicine, 2014, 190, 469-472.	2.5	31
11	Phase contrast X-ray imaging for the non-invasive detection of airway surfaces and lumen characteristics in mouse models of airway disease. European Journal of Radiology, 2008, 68, S22-S26.	1.2	30
12	The projection approximation and edge contrast for x-ray propagation-based phase contrast imaging of a cylindrical edge. Optics Express, 2010, 18, 9865.	1.7	30
13	X-ray Fokkerâ€“Planck equation for paraxial imaging. Scientific Reports, 2019, 9, 17537.	1.6	30
14	Dynamic <italic>In Vivo</italic> Chest X-ray Dark-Field Imaging in Mice. IEEE Transactions on Medical Imaging, 2019, 38, 649-656.	5.4	29
15	In vivo Dynamic Phase-Contrast X-ray Imaging using a Compact Light Source. Scientific Reports, 2018, 8, 6788.	1.6	28
16	Visualizing treatment delivery and deposition in mouse lungs using in vivo x-ray imaging. Journal of Controlled Release, 2019, 307, 282-291.	4.8	27
17	Non-invasive airway health assessment: Synchrotron imaging reveals effects of rehydrating treatments on mucociliary transit in-vivo. Scientific Reports, 2014, 4, 3689.	1.6	25
18	Live small-animal X-ray lung velocimetry and lung micro-tomography at the Australian Synchrotron Imaging and Medical Beamline. Journal of Synchrotron Radiation, 2015, 22, 1049-1055.	1.0	25

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19	Applying the Fokkerâ€“Planck equation to grating-based x-ray phase and dark-field imaging. Scientific Reports, 2019, 9, 17465.	1.6	25
20	Tracking extended mucociliary transport activity ofÂindividual deposited particles: longitudinal synchrotron X-ray imaging in live mice. Journal of Synchrotron Radiation, 2014, 21, 768-773.	1.0	23
21	Methods for dynamic synchrotron X-ray respiratory imaging in live animals. Journal of Synchrotron Radiation, 2020, 27, 164-175.	1.0	22
22	Measuring Airway Surface Liquid Depth in Ex Vivo Mouse Airways by X-Ray Imaging for the Assessment of Cystic Fibrosis Airway Therapies. PLoS ONE, 2013, 8, e55822.	1.1	21
23	High-resolution mucociliary transport measurement in live excised large animal trachea using synchrotron X-ray imaging. Respiratory Research, 2017, 18, 95.	1.4	21
24	Multimodal Precision Imaging of Pulmonary Nanoparticle Delivery in Mice: Dynamics of Application, Spatial Distribution, and Dosimetry. Small, 2019, 15, e1904112.	5.2	21
25	Ring artifact suppression in X-ray computed tomography using a simple, pixel-wise response correction. Optics Express, 2019, 27, 14231.	1.7	21
26	Real-time in vivo imaging of regional lung function in a mouse model of cystic fibrosis on a laboratory X-ray source. Scientific Reports, 2020, 10, 447.	1.6	20
27	Real-time non-invasive detection of inhalable particulates delivered into live mouse airways. Journal of Synchrotron Radiation, 2009, 16, 553-561.	1.0	17
28	Feasibility study of propagation-based phase-contrast X-ray lung imaging on the Imaging and Medical beamline at the Australian Synchrotron. Journal of Synchrotron Radiation, 2014, 21, 430-445.	1.0	16
29	Measurement of hard X-ray coherence in the presence of a rotating random-phase-screen diffuser. Optics Communications, 2010, 283, 216-225.	1.0	14
30	Dry deposition of pollutant and marker particles onto live mouse airway surfaces enhances monitoringÂof individual particle mucociliary transitÂbehaviour. Journal of Synchrotron Radiation, 2012, 19, 551-558.	1.0	14
31	Live-pig-airway surface imaging and whole-pig CT at the Australian Synchrotron Imaging and Medical Beamline. Journal of Synchrotron Radiation, 2019, 26, 175-183.	1.0	14
32	Exploring experimental parameter choice for rapid speckle-tracking phase-contrast X-ray imaging with a paper analyzer. Journal of Synchrotron Radiation, 2015, 22, 1279-1288.	1.0	14
33	Variability of In Vivo Fluid Dose Distribution in Mouse Airways Is Visualized by High-Speed Synchrotron X-Ray Imaging. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2013, 26, 307-316.	0.7	13
34	A new technique to examine individual pollutant particle and fibre deposition and transit behaviour in live mouse trachea. Journal of Synchrotron Radiation, 2010, 17, 719-729.	1.0	12
35	Animals In Synchrotrons: Overcoming Challenges For High-Resolution, Live, Small-Animal Imaging. , 2010, , .		12
36	Assessment of the use of a diffuser in propagation-based x-ray phase contrast imaging. Optics Express, 2010, 18, 13478.	1.7	12

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37	Nonlinear statistical iterative reconstruction for propagation-based phase-contrast tomography. APL Bioengineering, 2018, 2, 016105.	3.3	12
38	Photon-counting, energy-resolving and super-resolution phase contrast X-ray imaging using an integrating detector.. Optics Express, 2020, 28, 7080.	1.7	12
39	Directional dark-field implicit x-ray speckle tracking using an anisotropic-diffusion Fokker-Planck equation. Physical Review A, 2021, 104, .	1.0	11
40	Deterministic Bragg Coherent Diffraction Imaging. Scientific Reports, 2017, 7, 1132.	1.6	10
41	Material Decomposition Using Spectral Propagation-Based Phase-Contrast X-Ray Imaging. IEEE Transactions on Medical Imaging, 2020, 39, 3891-3899.	5.4	10
42	Capturing and visualizing transient X-ray wavefront topological features by single-grid phase imaging. Optics Express, 2016, 24, 24435.	1.7	9
43	Phase contrast x-ray velocimetry of small animal lungs: optimising imaging rates. Biomedical Optics Express, 2016, 7, 79.	1.5	9
44	The projection approximation versus an exact solution for X-ray phase contrast imaging, with a plane wave scattered by a dielectric cylinder. Optics Communications, 2010, 283, 4601-4608.	1.0	8
45	Quantifying the x-ray dark-field signal in single-grid imaging. Optics Express, 2022, 30, 10899.	1.7	8
46	Non-invasive airway health measurement using synchrotron x-ray microscopy of high refractive index glass microbeads. AIP Conference Proceedings, 2016, , .	0.3	6
47	Model-Based Iterative Reconstruction for Propagation-Based Phase-Contrast X-Ray CT including Models for the Source and the Detector. IEEE Transactions on Medical Imaging, 2020, 39, 1975-1987.	5.4	6
48	Spectral x-ray imaging: Conditions under which propagation-based phase-contrast is beneficial. Physics in Medicine and Biology, 2020, 65, 205006.	1.6	6
49	Material decomposition from a single x-ray projection via single-grid phase contrast imaging. Optics Letters, 2020, 45, 4076.	1.7	6
50	Particle coating alters mucociliary transit in excised rat trachea: A synchrotron X-ray imaging study. Scientific Reports, 2019, 9, 10983.	1.6	5
51	Quantification of muco-obstructive lung disease variability in mice via laboratory X-ray velocimetry. Scientific Reports, 2020, 10, 10859.	1.6	5
52	Tomographic phase and attenuation extraction for a sample composed of unknown materials using x-ray propagation-based phase-contrast imaging. Optics Letters, 2022, 47, 1945.	1.7	5
53	Dark-field tomography of an attenuating object using intrinsic x-ray speckle tracking. Journal of Medical Imaging, 2022, 9, 031502.	0.8	5
54	Dual scanning and full-field hard x-ray microscopy with a laboratory source. Optics Express, 2014, 22, 15437.	1.7	4

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55	Comparison of different numerical treatments for x-ray phase tomography of soft tissue from differential phase projections. Physics in Medicine and Biology, 2015, 60, 3065-3080.	1.6	4
56	The Munich Compact Light Source: Biomedical Research At a Laboratory-Scale Inverse-Compton Synchrotron X-ray Source. Microscopy and Microanalysis, 2018, 24, 984-985.	0.2	4
57	Towards automated in vivo tracheal mucociliary transport measurement: Detecting and tracking particle movement in synchrotron phase-contrast x-ray images. Physics in Medicine and Biology, 2020, 65, 145012.	1.6	4
58	Quantitative material decomposition using linear iterative near-field phase retrieval dual-energy x-ray imaging. Physics in Medicine and Biology, 2020, 65, 185014.	1.6	4
59	Single grating x-ray imaging for dynamic biological systems. , 2012, , .		3
60	Singularimetry of local phase gradients using vortex lattices and in-line holography. Optics Express, 2016, 24, 2259.	1.7	3
61	Requirements for dynamical differential phase contrast x-ray imaging with a laboratory source. Physics in Medicine and Biology, 2016, 61, 8720-8735.	1.6	3
62	Non-absorptive clearance from airways. , 2021, , 197-223.		3
63	Deterministic X-ray Bragg coherent diffraction imaging as a seed for subsequent iterative reconstruction. Journal of Physics Communications, 2018, 2, 085027.	0.5	2
64	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.	1.5	2
65	Optimising Coherence Properties for Phase Contrast X-Ray Imaging (PCXI) to Reveal Airway Surface Liquid (ASL) as an Airway Health Measure. IFMBE Proceedings, 2009, , 135-138.	0.2	1
66	Improved in-vivo airway gene transfer via magnetic-guidance, with protocol development informed by synchrotron imaging. Scientific Reports, 2022, 12, .	1.6	1
67	Mucociliary Transit Assessment Using Automatic Tracking in Phase Contrast X-Ray Images of Live Mouse Nasal Airways. Journal of Medical and Biological Engineering, 2022, 42, 545-554.	1.0	1
68	Imaging the Brain In Situ with Phase Contrast CT. Microscopy and Microanalysis, 2018, 24, 354-355.	0.2	0
69	Dynamic X-ray Imaging at the Munich Compact Light Source. Microscopy and Microanalysis, 2018, 24, 352-353.	0.2	0
70	Spectral propagation-based x-ray phase-contrast imaging. , 2021, , .		0
71	Speckle-based x-ray dark-field tomography of an attenuating object. , 2021, , .		0
72	10.1063/1.3694918.1. , 2012, , .		0

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73	In vivo x-ray imaging of the respiratory system using synchrotron sources and a compact light source. , 2019, , .		0
74	Spectral propagation-based x-ray phase-contrast computed tomography. Journal of Medical Imaging, 2022, 9, 031506.	0.8	0