Akira Tsuda

List of Publications by Year
in descending order

58 papers	2,433 citations	361413 20 h-index	223800 46 g-index
58 all docs	58 docs citations	58 times ranked	3181 citing authors

#	Article	IF	Citations
1	Rapid translocation of nanoparticles from the lung airspaces to the body. Nature Biotechnology, 2010, 28, 1300-1303.	17.5	546
2	Lung Inflammation Induced by Concentrated Ambient Air Particles Is Related to Particle Composition. American Journal of Respiratory and Critical Care Medicine, 2002, 165, 1610-1617.	5.6	247
3	Evidence for Adult Lung Growth in Humans. New England Journal of Medicine, 2012, 367, 244-247.	27.0	237
4	Particle Transport and Deposition: Basic Physics of Particle Kinetics. , 2013, 3, 1437-1471.		192
5	Chaotic mixing deep in the lung. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 10173-10178.	7.1	112
6	Respiratory Flow Phenomena and Gravitational Deposition in a Three-Dimensional Space-Filling Model of the Pulmonary Acinar Tree. Journal of Biomechanical Engineering, 2009, 131, 031010.	1.3	101
7	Spatial dependence of alveolar angiogenesis in post-pneumonectomy lung growth. Angiogenesis, 2012, 15, 23-32.	7.2	72
8	Gas and aerosol mixing in the acinus. Respiratory Physiology and Neurobiology, 2008, 163, 139-149.	1.6	68
9	The role of natural processes and surface energy of inhaled engineered nanoparticles on aggregation and corona formation. NanoImpact, 2016, 2, 38-44.	4.5	68
10	Nanoparticle delivery in infant lungs. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5092-5097.	7.1	58
11	Low Reynolds Number Viscous Flow in an Alveolated Duct. Journal of Biomechanical Engineering, 2004, 126, 420-429.	1.3	52
12	Acinar flow irreversibility caused by perturbations in reversible alveolar wall motion. Journal of Applied Physiology, 1999, 86, 977-984.	2.5	45
13	Dynamic determination of oxygenation and lung compliance in murine pneumonectomy. Experimental Lung Research, 2011, 37, 301-309.	1.2	41
14	CD34⁺ Progenitor to Endothelial Cell Transition in Post-Pneumonectomy Angiogenesis. American Journal of Respiratory Cell and Molecular Biology, 2012, 46, 283-289.	2.9	40
15	Alveolar Cell Stretching in the Presence of Fibrous Particles Induces Interleukin-8 Responses. American Journal of Respiratory Cell and Molecular Biology, 1999, 21, 455-462.	2.9	39
16	Synchrotron x-ray imaging of pulmonary alveoli in respiration in live intact mice. Scientific Reports, 2015, 5, 8760.	3.3	36
17	Structural Heteropolysaccharide Adhesion to the Glycocalyx of Visceral Mesothelium. Tissue Engineering - Part A, 2018, 24, 199-206.	3.1	36
18	Postnatal lung function in the developing rat. Journal of Applied Physiology, 2008, 104, 1167-1176.	2.5	33

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19	Age-Dependent Translocation of Gold Nanoparticles across the Airâ€“Blood Barrier. ACS Nano, 2019, 13, 10095-10102.	14.6	31
20	Why chaotic mixing of particles is inevitable in the deep lung. Journal of Theoretical Biology, 2011, 286, 57-66.	1.7	29
21	Propagation and Breakup of Liquid Menisci and Aerosol Generation in Small Airways. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2009, 22, 341-353.	1.4	28
22	Remodeling of alveolar septa after murine pneumonectomy. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2015, 308, L1237-L1244.	2.9	21
23	Stretch-induced intussuceptive and sprouting angiogenesis in the chick chorioallantoic membrane. Microvascular Research, 2014, 95, 60-67.	2.5	20
24	Elastin Cables Define the Axial Connective Tissue System in the Murine Lung. Anatomical Record, 2015, 298, 1960-1968.	1.4	20
25	Functional Mechanics of a Pectin-Based Pleural Sealant after Lung Injury. Tissue Engineering - Part A, 2018, 24, 695-702.	3.1	19
26	Evidence for pleural epithelial-mesenchymal transition in murine compensatory lung growth. PLoS ONE, 2017, 12, e0177921.	2.5	19
27	Deformation-induced transitional myofibroblasts contribute to compensatory lung growth. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2017, 312, L79-L88.	2.9	18
28	Structural heteropolysaccharides as airâ€tight sealants of the human pleura. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 799-806.	3.4	18
29	Bimodal Oscillation Frequencies of Blood Flow in the Inflammatory Colon Microcirculation. Anatomical Record, 2009, 292, 65-72.	1.4	17
30	Pectin biopolymer mechanics and microstructure associated with polysaccharide phase transitions. Journal of Biomedical Materials Research - Part A, 2020, 108, 246-253.	4.0	17
31	Logistic trajectory maps and aerosol mixing due to asynchronous flow at airway bifurcations. Respiratory Physiology and Neurobiology, 2005, 148, 195-206.	1.6	16
32	Distribution and Quantity of Contractile Tissue in Postnatal Development of Rat Alveolar Interstitium. Anatomical Record, 2008, 291, 83-93.	1.4	16
33	Pleural mechanics and the pathophysiology of air leaks. Journal of Thoracic and Cardiovascular Surgery, 2018, 155, 2182-2189.	0.8	16
34	Transport of Gases between the Environment and Alveoliâ€”Theoretical Foundations. , 2011, 1, 1301-1316.		15
35	Onset of alveolar recirculation in the developing lungs and its consequence on nanoparticle deposition in the pulmonary acinus. Journal of Applied Physiology, 2016, 120, 38-54.	2.5	14
36	Tracking the pathway of diesel exhaust particles from the nose to the brain by X-ray florescence analysis. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2009, 64, 796-801.	2.9	11

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37	Stress integration procedures for a biaxial isotropic material model of biological membranes and for hysteretic models of muscle fibres and surfactant. International Journal for Numerical Methods in Engineering, 2006, 68, 893-909.	2.8	9
38	Extracellular Assembly of the Elastin Cable Line Element in the Developing Lung. Anatomical Record, 2017, 300, 1670-1679.	1.4	7
39	Analysis of pectin biopolymer phase states using acoustic emissions. Carbohydrate Polymers, 2020, 227, 115282.	10.2	7
40	Multimodal imaging for the detection of sub-micron particles in the gas-exchange region of the mammalian lung. Journal of Physics: Conference Series, 2009, 186, 012040.	0.4	6
41	Deep pulmonary lymphatics in immature lungs. Journal of Applied Physiology, 2009, 107, 859-863.	2.5	6
42	Pressure-decay testing of pleural air leaks in intact murine lungs: evidence for peripheral airway regulation. Physiological Reports, 2018, 6, e13712.	1.7	6
43	Is Current Social Distancing Enough?. Annals of Biomedical Engineering, 2021, 49, 1973-1974.	2.5	5
44	Structural and functional evidence for the scaffolding effect of alveolar blood vessels. Experimental Lung Research, 2017, 43, 337-346.	1.2	4
45	Single-Cell Transcriptional Profiling of Cells Derived From Regenerating Alveolar Ducts. Frontiers in Medicine, 2020, 7, 112.	2.6	4
46	Image Segmentation of the Pulmonary Acinus Imaged by Synchrotron X-Ray Tomography. , 2019, , .		3
47	Interstitial fluid flow of alveolar primary septa after pneumonectomy. Journal of Theoretical Biology, 2016, 400, 118-128.	1.7	2
48	Alveolar septal patterning during compensatory lung growth: Part II the effect of parenchymal pressure gradients. Journal of Theoretical Biology, 2017, 421, 168-178.	1.7	2
49	Comment on â€œMicroflow in a rhythmically expanding alveolar chip with dynamic similarityâ€•by H. Lv, J. Dong, Y. Qiu, Y. Yang and Y. Zhu, Lab Chip, 2020, 20, 2394. Lab on A Chip, 2021, 21, 1429-1430.	6.0	2
50	Acceleration of image filtering algorithms for 3D visualization of murine lungs using dataflow engines. , 2015, , .		1
51	Why do myofibroblasts preferentially accumulate on the convex surface of the remodeling lung after pneumonectomy?. Journal of Theoretical Biology, 2019, 479, 90-96.	1.7	1
52	Big Data and machine learning: new frontier in lung cancer care. Shanghai Chest, 2019, 3, 51-51.	0.3	0
53	Deposition of Submicron Particles by Chaotic Mixing in the Pulmonary Acinus. Advances in Systems Analysis, Software Engineering, and High Performance Computing Book Series, 2021, , 145-161.	0.5	0
54	Intravascular flow fields shape intussusceptive pillars in the chick chorioallantoic membrane. FASEB Journal, 2010, 24, 172.3.	0.5	0

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55	Structural contribution of intravascular blood distension to lung mechanics. FASEB Journal, 2013, 27, 747.4.	0.5	0
56	Sequence of vascular patterning and gene transcription in the chick chorioallantoic membrane (15.1). FASEB Journal, 2014, 28, 15.1.	0.5	0
57	Multidimensional Clustering of Regenerative Alveolar Duct Cells after Murine Pneumonectomy. FASEB Journal, 2018, 32, 867.5.	0.5	0
58	Chaotic mixing and its role in enhancing particle deposition in the pulmonary acinus: A review. , 2022, , 169-185.		0