

Clement Kleinstreuer

List of Publications by Year in descending order

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68
papers

3,683
citations

117625

34
h-index

128289

60
g-index

71
all docs

71
docs citations

71
times ranked

2596
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparison of micro- and nano-size particle depositions in a human upper airway model. Journal of Aerosol Science, 2005, 36, 211-233.	3.8	277
2	Airflow and Particle Transport in the Human Respiratory System. Annual Review of Fluid Mechanics, 2010, 42, 301-334.	25.0	275
3	Targeted Drug-Aerosol Delivery in the Human Respiratory System. Annual Review of Biomedical Engineering, 2008, 10, 195-220.	12.3	218
4	Airflow structures and nano-particle deposition in a human upper airway model. Journal of Computational Physics, 2004, 198, 178-210.	3.8	217
5	Computational mechanics of Nitinol stent grafts. Journal of Biomechanics, 2008, 41, 2370-2378.	2.1	216
6	Flow structures and particle deposition patterns in double-bifurcation airway models. Part 1. Air flow fields. Journal of Fluid Mechanics, 2001, 435, 25-54.	3.4	169
7	Transient airflow structures and particle transport in a sequentially branching lung airway model. Physics of Fluids, 2002, 14, 862-880.	4.0	165
8	Rheological effects on pulsatile hemodynamics in a stenosed tube. Computers and Fluids, 2000, 29, 695-724.	2.5	139
9	Modeling airflow and particle transport/deposition in pulmonary airways. Respiratory Physiology and Neurobiology, 2008, 163, 128-138.	1.6	130
10	Analysis and computer program for rupture-risk prediction of abdominal aortic aneurysms. BioMedical Engineering OnLine, 2006, 5, 19.	2.7	81
11	Laminar to turbulent fluid nanoparticle dynamics simulations: Model comparisons and nanoparticle deposition applications. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 1930-1950.	2.1	81
12	Computational analysis of aerosol-dynamics in a human whole-lung airway model. Journal of Aerosol Science, 2017, 114, 301-316.	3.8	79
13	Computer Modeling of Controlled Microsphere Release and Targeting in a Representative Hepatic Artery System. Annals of Biomedical Engineering, 2010, 38, 1862-1879.	2.5	78
14	Computational Analyses of a Pressurized Metered Dose Inhaler and a New Drug Aerosol Targeting Methodology. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2007, 20, 294-309.	1.2	77
15	Flow over a thin circular disk at low to moderate Reynolds numbers. Journal of Fluid Mechanics, 2008, 605, 253-262.	3.4	73
16	Effect of Particle Inlet Distributions on Deposition in a Triple Bifurcation Lung Airway Model. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2001, 14, 13-29.	1.2	70
17	Computational Analysis of Non-Spherical Particle Transport and Deposition in Shear Flow With Application to Lung Aerosol Dynamics A Review. Journal of Biomechanical Engineering, 2013, 135, 021008.	1.3	70
18	Analysis of non-spherical particle transport in complex internal shear flows. Physics of Fluids, 2013, 25, .	4.0	64

#	ARTICLE	IF	CITATIONS
19	Drug-targeting methodologies with applications: A review. <i>World Journal of Clinical Cases</i> , 2014, 2, 742.	0.8	64
20	An Adjustable Triple-Bifurcation Unit Model for Air-Particle Flow Simulations in Human Tracheobronchial Airways. <i>Journal of Biomechanical Engineering</i> , 2009, 131, 021007.	1.3	60
21	Targeted Drug Aerosol Deposition Analysis for a Four-Generation Lung Airway Model With Hemispherical Tumors. <i>Journal of Biomechanical Engineering</i> , 2003, 125, 197-206.	1.3	56
22	Flow Input Waveform Effects on the Temporal and Spatial Wall Shear Stress Gradients in a Femoral Graft-Artery Connector. <i>Journal of Biomechanical Engineering</i> , 1996, 118, 506-510.	1.3	53
23	Water Vapor Transport and Its Effects on the Deposition of Hygroscopic Droplets in a Human Upper Airway Model. <i>Aerosol Science and Technology</i> , 2006, 40, 1-16.	3.1	53
24	Computationally efficient analysis of particle transport and deposition in a human whole-lung-airway model. Part I: Theory and model validation. <i>Computers in Biology and Medicine</i> , 2016, 79, 193-204.	7.0	50
25	Dilute suspension flow with nanoparticle deposition in a representative nasal airway model. <i>Physics of Fluids</i> , 2008, 20, .	4.0	49
26	Computational Models for Simulating Multicomponent Aerosol Evaporation in the Upper Respiratory Airways. <i>Aerosol Science and Technology</i> , 2005, 39, 124-138.	3.1	48
27	Fluid-Structure Interaction Analyses of Stented Abdominal Aortic Aneurysms. <i>Annual Review of Biomedical Engineering</i> , 2007, 9, 169-204.	12.3	46
28	Lung Deposition Analyses of Inhaled Toxic Aerosols in Conventional and Less Harmful Cigarette Smoke: A Review. <i>International Journal of Environmental Research and Public Health</i> , 2013, 10, 4454-4485.	2.6	46
29	Computationally efficient analysis of particle transport and deposition in a human whole-lung-airway model. Part II: Dry powder inhaler application. <i>Computers in Biology and Medicine</i> , 2017, 84, 247-253.	7.0	43
30	Hemodynamics Analysis of a Stenosed Carotid Bifurcation and its Plaque-Mitigating Design. <i>Journal of Biomechanical Engineering</i> , 1991, 113, 330-335.	1.3	41
31	A New Catheter for Tumor Targeting With Radioactive Microspheres in Representative Hepatic Artery Systems. Part I: Impact of Catheter Presence on Local Blood Flow and Microsphere Delivery. <i>Journal of Biomechanical Engineering</i> , 2012, 134, 051004.	1.3	40
32	Mathematical Modeling and Computer Simulations of Nanofluid Flow with Applications to Cooling and Lubrication. <i>Fluids</i> , 2016, 1, 16.	1.7	39
33	Nanoparticle Mass Transfer From Lung Airways to Systemic Regions—Part I: Whole-Lung Aerosol Dynamics. <i>Journal of Biomechanical Engineering</i> , 2013, 135, 121003.	1.3	38
34	Experimental Microsphere Targeting in a Representative Hepatic Artery System. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 198-204.	4.2	35
35	Mice-to-men comparison of inhaled drug-aerosol deposition and clearance. <i>Respiratory Physiology and Neurobiology</i> , 2019, 260, 82-94.	1.6	28
36	Forced-Convection Cooling of a Linear Array of Blocks in Open and Porous Matrix Channels. <i>Heat Transfer Engineering</i> , 1991, 12, 40-47.	1.9	27

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37	Effects of thermal airflow and mucus-layer interaction on hygroscopic droplet deposition in a simple mouth-throat model. <i>Aerosol Science and Technology</i> , 2018, 52, 900-912.	3.1	26
38	Modeling Airflow and Particle Deposition in a Human Acinar Region. <i>Computational and Mathematical Methods in Medicine</i> , 2019, 2019, 1-13.	1.3	24
39	Nanoparticle Mass Transfer From Lung Airways to Systemic Regions Part II: Multi-Compartmental Modeling. <i>Journal of Biomechanical Engineering</i> , 2013, 135, 121004.	1.3	23
40	Analysis of a Porous-Medium Solar Collector. <i>Heat Transfer Engineering</i> , 1990, 11, 45-55.	1.9	22
41	Influence of aspect ratio on the dynamics of a freely moving circular disk. <i>Journal of Fluid Mechanics</i> , 2010, 653, 463-487.	3.4	21
42	Computationally Efficient Particle Release Map Determination for Direct Tumor-Targeting in a Representative Hepatic Artery System. <i>Journal of Biomechanical Engineering</i> , 2014, 136, 011012.	1.3	21
43	Impact of Fluid-Structure Interaction on Direct Tumor-Targeting in a Representative Hepatic Artery System. <i>Annals of Biomedical Engineering</i> , 2014, 42, 461-474.	2.5	21
44	A Numerical Investigation of Laminar Flow Past Nonspherical Solids and Droplets. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 1995, 117, 170-175.	1.5	20
45	Analysis of Multi-Layer Immiscible Fluid Flow in a Microchannel. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2011, 133, .	1.5	20
46	Solid Tumor Embolotherapy in Hepatic Arteries with an Anti-reflux Catheter System. <i>Annals of Biomedical Engineering</i> , 2016, 44, 1036-1046.	2.5	18
47	Nanomedicine for Treatment of Acute Lung Injury and Acute Respiratory Distress Syndrome. <i>Biomedicine Hub</i> , 2017, 2, 1-12.	1.2	18
48	Computational Analysis of Interacting Vaporizing Fuel Droplets on a One-Dimensional Trajectory. <i>Combustion Science and Technology</i> , 1992, 86, 289-309.	2.3	16
49	Direct nanodrug delivery for tumor targeting subject to shear-augmented diffusion in blood flow. <i>Medical and Biological Engineering and Computing</i> , 2018, 56, 1949-1958.	2.8	15
50	Helical fluid-particle flow dynamics for controlling micron-particle deposition in a representative human upper lung-airway model. <i>Journal of Aerosol Science</i> , 2021, 151, 105656.	3.8	13
51	Comparison of micron- and nano-particle transport in the human nasal cavity with a focus on the olfactory region. <i>Computers in Biology and Medicine</i> , 2021, 128, 104103.	7.0	13
52	Similarity Solution of Combined Convection Heat Transfer From a Rotating Cone or Disk to Non-Newtonian Fluids. <i>Journal of Heat Transfer</i> , 1990, 112, 939-944.	2.1	12
53	Hemodynamic Parameters and Early Intimal Thickening in Branching Blood Vessels. <i>Critical Reviews in Biomedical Engineering</i> , 2017, 45, 319-382.	0.9	12
54	Potential Use of Multifunctional Nanoparticles for the Treatment of Cardiovascular Diseases. <i>Journal of Cardiology and Cardiovascular Sciences</i> , 2018, 2, 30-36.	0.4	12

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55	MIXED CONVECTION FROM A ROTATING CONE WITH VARIABLE SURFACE TEMPERATURE. Numerical Heat Transfer; Part A: Applications, 1994, 25, 75-83.	2.1	10
56	Computationally Efficient Fluid-Particle Dynamics Simulations of Arterial Systems. Communications in Computational Physics, 2015, 17, 401-423.	1.7	10
57	A New Near-wall Residence Time Model Applied to Three Arterio-venous Graft End-to-side Anastomoses. Computer Methods in Biomechanics and Biomedical Engineering, 2001, 4, 379-397.	1.6	9
58	Mixed Thermal Convection of Power-Law Fluids Past Bodies With Uniform Fluid Injection or Suction. Journal of Heat Transfer, 1990, 112, 151-156.	2.1	7
59	FREE CONVECTION HEAT TRANSFER BETWEEN A PERMEABLE VERTICAL WALL AND A POWER-LAW FLUID. Numerical Heat Transfer, 1987, 12, 367-379.	0.5	6
60	Heterogeneous blood flow in microvessels with applications to nanodrug transport and mass transfer into tumor tissue. Biomechanics and Modeling in Mechanobiology, 2019, 18, 99-110.	2.8	6
61	Laminar Flow Past Colinear Spheres With Fluid Injection. Journal of Fluids Engineering, Transactions of the ASME, 1991, 113, 176-182.	1.5	5
62	Computational Thermodynamics Analysis of Vaporizing Fuel Droplets in the Human Upper Airways. JSME International Journal Series B, 2003, 46, 563-571.	0.3	3
63	Analysis of improved oral drug delivery with different helical stream inhalation modes. Computers in Biology and Medicine, 2022, 141, 105132.	7.0	2
64	Computer simulation of aerosol transport and deposition in multi-generation airway models. , 0, , .		1
65	Analytical Solution to Flux Enhancement in Laminar Concentrically Stratified Pipe Flow of Bingham and Newtonian Fluids. Journal of Fluids Engineering, Transactions of the ASME, 1998, 120, 629-631.	1.5	0
66	Virtual prototyping of branching blood vessels. , 0, , .		0
67	Improving Pulmonary Nano-Therapeutics Using Helical Aerosol Streams - An In-Silico Study. Journal of Biomechanical Engineering, 2021, 143, .	1.3	0
68	Numerical Analysis of Enhanced Nano-Drug Delivery to the Olfactory Bulb. Aerosol Science and Technology, 0, , 1-15.	3.1	0