Otmar Schmid

List of Publications by Year
in descending order

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71 papers	5,321 citations	117625 34 h-index	91884 69 g-index
75 all docs	75 docs citations	75 times ranked	6828 citing authors

#	Article	IF	Citations
1	Validation of in vitro models for smoke exposure of primary human bronchial epithelial cells. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2022, 322, L129-L148.	2.9	6
2	Aggregates Associated with Instability of Antibodies during Aerosolization Induce Adverse Immunological Effects. Pharmaceutics, 2022, 14, 671.	4.5	15
3	Aerosolâ€“Cell Exposure System Applied to Semi-Adherent Cells for Aerosolization of Lung Surfactant and Nanoparticles Followed by High Quality RNA Extraction. Nanomaterials, 2022, 12, 1362.	4.1	6
4	Development of a dynamic in vitro stretch model of the alveolar interface with aerosol delivery. Biotechnology and Bioengineering, 2021, 118, 690-702.	3.3	19
5	A Biomimetic, Copolymeric Membrane for Cellâ€Stretch Experiments with Pulmonary Epithelial Cells at the Airâ€Liquid Interface. Advanced Functional Materials, 2021, 31, 2004707.	14.9	28
6	A Bioinspired in vitro Lung Model to Study Particokinetics of Nano-/Microparticles Under Cyclic Stretch and Air-Liquid Interface Conditions. Frontiers in Bioengineering and Biotechnology, 2021, 9, 616830.	4.1	37
7	Gender specific airway gene expression in COPD sub-phenotypes supports a role of mitochondria and of different types of leukocytes. Scientific Reports, 2021, 11, 12848.	3.3	8
8	Calibration of gas flow meters using choked flow and an evacuated vessel. Measurement Science and Technology, 2021, 32, 105105.	2.6	0
9	A drug screen with approved compounds identifies amlexanox as a novel Wnt/Î²â€catenin activator inducing lung epithelial organoid formation. British Journal of Pharmacology, 2021, 178, 4026-4041.	5.4	10
10	Retained particle surface area dose drives inflammation in rat lungs following acute, subacute, and subchronic inhalation of nanomaterials. Particle and Fibre Toxicology, 2021, 18, 29.	6.2	25
11	Anatomical considerations for inhaled aerosol deposition modeling: Methods, applications, challenges and opportunities. Journal of Aerosol Science, 2021, 156, 105786.	3.8	2
12	Flow Structure and Particle Deposition Analyses for Optimization of a Pressurized Metered Dose Inhaler (pMDI) in a Model of Tracheobronchial Airway. European Journal of Pharmaceutical Sciences, 2021, 164, 105911.	4.0	32
13	Pulsatile Bi-Directional Aerosol Flow Affects Aerosol Delivery to the Intranasal Olfactory Region: A Patient-Specific Computational Study. Frontiers in Pharmacology, 2021, 12, 746420.	3.5	11
14	Effects of physicochemical properties of TiO2 nanomaterials for pulmonary inflammation, acute phase response and alveolar proteinosis in intratracheally exposed mice. Toxicology and Applied Pharmacology, 2020, 386, 114830.	2.8	66
15	Pulmonary toxicity of Fe2O3, ZnFe2O4, NiFe2O4 and NiZnFe4O8 nanomaterials: Inflammation and DNA strand breaks. Environmental Toxicology and Pharmacology, 2020, 74, 103303.	4.0	27
16	Prediction of Chronic Inflammation for Inhaled Particles: the Impact of Material Cycling and Quarantining in the Lung Epithelium. Advanced Materials, 2020, 32, e2003913.	21.0	14
17	Large eddy simulations of airflow and particle deposition in pulsating bi-directional nasal drug delivery. Physics of Fluids, 2020, 32, .	4.0	24
18	Quartz crystal microbalances (QCM) are suitable for real-time dosimetry in nanotoxicological studies using VITROCELLÂ®Cloud cell exposure systems. Particle and Fibre Toxicology, 2020, 17, 44.	6.2	41

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19	Organâ€Restricted Vascular Delivery of Nanoparticles for Lung Cancer Therapy. Advanced Therapeutics, 2020, 3, 2000017.	3.2	7
20	Innovative preclinical models for pulmonary drug delivery research. Expert Opinion on Drug Delivery, 2020, 17, 463-478.	5.0	45
21	Simulation of patient-specific bi-directional pulsating nasal aerosol dispersion and deposition with clockwise 45Â° and 90Â° nosepieces. Computers in Biology and Medicine, 2020, 123, 103816.	7.0	22
22	Disease Prediction: Prediction of Chronic Inflammation for Inhaled Particles: the Impact of Material Cycling and Quarantining in the Lung Epithelium (Adv. Mater. 47/2020). Advanced Materials, 2020, 32, .	21.0	0
23	Evolution of Bioengineered Lung Models: Recent Advances and Challenges in Tissue Mimicry for Studying the Role of Mechanical Forces in Cell Biology. Advanced Functional Materials, 2019, 29, 1903114.	14.9	40
24	Multimodal Precision Imaging of Pulmonary Nanoparticle Delivery in Mice: Dynamics of Application, Spatial Distribution, and Dosimetry. Small, 2019, 15, e1904112.	10.0	21
25	Visualizing treatment delivery and deposition in mouse lungs using in vivo x-ray imaging. Journal of Controlled Release, 2019, 307, 282-291.	9.9	27
26	Ranking of nanomaterial potency to induce pathway perturbations associated with lung responses. NanoImpact, 2019, 14, 100158.	4.5	30
27	Three-Dimensional Quantitative Co-Mapping of Pulmonary Morphology and Nanoparticle Distribution with Cellular Resolution in Nondissected Murine Lungs. ACS Nano, 2019, 13, 1029-1041.	14.6	42
28	In vivo x-ray imaging of the respiratory system using synchrotron sources and a compact light source. , 2019, , .		0
29	In vivo Dynamic Phase-Contrast X-ray Imaging using a Compact Light Source. Scientific Reports, 2018, 8, 6788.	3.3	28
30	Nasal high flow reduces dead space. Journal of Applied Physiology, 2017, 122, 191-197.	2.5	168
31	A comprehensive screening platform for aerosolizable protein formulations for intranasal and pulmonary drug delivery. International Journal of Pharmaceutics, 2017, 532, 537-546.	5.2	50
32	Biokinetics of Aerosolized Liposomal Ciclosporin A in Human Lung Cells In Vitro Using an Air-Liquid Cell Interface Exposure System. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2017, 30, 411-424.	1.4	18
33	Early pulmonary response is critical for extra-pulmonary carbon nanoparticle mediated effects: comparison of inhalation versus intra-arterial infusion exposures in mice. Particle and Fibre Toxicology, 2017, 14, 19.	6.2	38
34	On the pivotal role of dose for particle toxicology and risk assessment: exposure is a poor surrogate for delivered dose. Particle and Fibre Toxicology, 2017, 14, 52.	6.2	51
35	Surface area is the biologically most effective dose metric for acute nanoparticle toxicity in the lung. Journal of Aerosol Science, 2016, 99, 133-143.	3.8	283
36	Bridging the Gap Between Science and Clinical Efficacy: Physiology, Imaging, and Modeling of Aerosols in the Lung. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2016, 29, 107-126.	1.4	70

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37	Nasal high flow clears anatomical dead space in upper airway models. Journal of Applied Physiology, 2015, 118, 1525-1532.	2.5	216
38	Quantitative detection of drug dose and spatial distribution in the lung revealed by Cryoslicing Imaging. Journal of Pharmaceutical and Biomedical Analysis, 2015, 102, 129-136.	2.8	14
39	An in vitro testing strategy towards mimicking the inhalation of high aspect ratio nanoparticles. Particle and Fibre Toxicology, 2014, 11, 40.	6.2	91
40	The composition of cigarette smoke determines inflammatory cell recruitment to the lung in COPD mouse models. Clinical Science, 2014, 126, 207-221.	4.3	76
41	Drug Delivery to Paranasal Sinuses Using Pulsating Aerosols. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2014, 27, 255-263.	1.4	37
42	Effects of ultrafine particles on the allergic inflammation in the lung of asthmatics: results of a double-blinded randomized cross-over clinical pilot study. Particle and Fibre Toxicology, 2014, 11, 39.	6.2	26
43	Efficient Bioactive Delivery of Aerosolized Drugs to Human Pulmonary Epithelial Cells Cultured in Airâ€“Liquid Interface Conditions. American Journal of Respiratory Cell and Molecular Biology, 2014, 51, 526-535.	2.9	92
44	Measurement Techniques for Respiratory Tract Deposition of Airborne Nanoparticles: A Critical Review. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2014, 27, 229-254.	1.4	111
45	Exposure of silver-nanoparticles and silver-ions to lung cells in vitro at the air-liquid interface. Particle and Fibre Toxicology, 2013, 10, 11.	6.2	118
46	Gold nanoparticle aerosols for rodent inhalation and translocation studies. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	14
47	Inflammatory and Oxidative Stress Responses of an Alveolar Epithelial Cell Line to Airborne Zinc Oxide Nanoparticles at the Air-Liquid Interface: A Comparison with Conventional, Submerged Cell-Culture Conditions. BioMed Research International, 2013, 2013, 1-12.	1.9	118
48	Efficient internalization and intracellular translocation of inhaled gold nanoparticles in rat alveolar macrophages. Nanomedicine, 2012, 7, 855-865.	3.3	35
49	In-vitro cell exposure studies for the assessment of nanoparticle toxicity in the lungâ€”A dialog between aerosol science and biology. Journal of Aerosol Science, 2011, 42, 668-692.	3.8	264
50	Generation and characterization of stable, highly concentrated titanium dioxide nanoparticle aerosols for rodent inhalation studies. Journal of Nanoparticle Research, 2011, 13, 511-524.	1.9	26
51	Occupational and consumer risk estimates for nanoparticles emitted by laser printers. Journal of Nanoparticle Research, 2010, 12, 91-99.	1.9	28
52	Effects and uptake of gold nanoparticles deposited at the airâ€“liquid interface of a human epithelial airway model. Toxicology and Applied Pharmacology, 2010, 242, 56-65.	2.8	167
53	Quantitative Evaluation of Cellular Uptake and Trafficking of Plain and Polyethylene Glycolâ€Coated Gold Nanoparticles. Small, 2010, 6, 1669-1678.	10.0	313
54	Deducing in Vivo Toxicity of Combustion-Derived Nanoparticles from a Cell-Free Oxidative Potency Assay and Metabolic Activation of Organic Compounds. Environmental Health Perspectives, 2009, 117, 54-60.	6.0	97

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55	Performance Evaluation of a Fast Mobility-Based Particle Spectrometer for Aircraft Exhaust. Journal of Propulsion and Power, 2009, 25, 628-634.	2.2	15
56	A dose-controlled system for air-liquid interface cell exposure and application to zinc oxide nanoparticles. Particle and Fibre Toxicology, 2009, 6, 32.	6.2	199
57	Derivation of the Density and Refractive Index of Organic Matter and Elemental Carbon from Closure between Physical and Chemical Aerosol Properties. Environmental Science & Technology, 2009, 43, 1166-1172.	10.0	25
58	Optical properties and chemical composition of the atmospheric aerosol in urban Guangzhou, China. Atmospheric Environment, 2008, 42, 6335-6350.	4.1	248
59	Quality control and quality assurance for particle size distribution measurements at an urban monitoring station in Augsburg, Germany. Journal of Environmental Monitoring, 2008, 10, 1017.	2.1	38
60	Seasonal and Diurnal Variation of PM_{2.5} Apparent Particle Density in Urban Air in Augsburg, Germany. Environmental Science & Technology, 2008, 42, 5087-5093.	10.0	81
61	Model for the Deposition of Aerosol Particles in the Respiratory Tract of the Rat. I. Nonhygroscopic Particle Deposition. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2008, 21, 291-308.	1.4	37
62	Aerosol optical properties in a rural environment near the mega-city Guangzhou, China: implications for regional air pollution, radiative forcing and remote sensing. Atmospheric Chemistry and Physics, 2008, 8, 5161-5186.	4.9	150
63	On the effective density of non-spherical particles as derived from combined measurements of aerodynamic and mobility equivalent size. Journal of Aerosol Science, 2007, 38, 431-443.	3.8	66
64	Chemical Investigation of Eight Different Types of Carbonaceous Particles Using Thermoanalytical Techniques. Environmental Science & Technology, 2007, 41, 8406-8411.	10.0	23
65	Inflammatory Response to TiO 2 and Carbonaceous Particles Scales Best with BET Surface Area. Environmental Health Perspectives, 2007, 115, A290-1; author reply A291-2.	6.0	44
66	Comparison of three methods of fractal analysis applied to soot aggregates from wood combustion. Journal of Aerosol Science, 2006, 37, 820-838.	3.8	89
67	Spectral light absorption by ambient aerosols influenced by biomass burning in the Amazon Basin. I: Comparison and field calibration of absorption measurement techniques. Atmospheric Chemistry and Physics, 2006, 6, 3443-3462.	4.9	285
68	Optical properties of humic-like substances (HULIS) in biomass-burning aerosols. Atmospheric Chemistry and Physics, 2006, 6, 3563-3570.	4.9	566
69	Mass spectrometric analysis and aerodynamic properties of various types of combustion-related aerosol particles. International Journal of Mass Spectrometry, 2006, 258, 37-49.	1.5	260
70	Methodology for Particle Characterization in the Exhaust Flows of Gas Turbine Engines. Aerosol Science and Technology, 2004, 38, 1108-1122.	3.1	16
71	Investigation of Volatility Method for Measuring Aqueous Sulfuric Acid on Mixed Aerosols. Aerosol Science and Technology, 2002, 36, 877-889.	3.1	17