Michael Hindle

List of Publications by Year
in descending order

107 papers	3,908 citations	87723 38 h-index	143772 57 g-index
109 all docs	109 docs citations	109 times ranked	1747 citing authors

#	ARTICLE	IF	CITATIONS
1	Near Elimination of In Vitro Predicted Extrathoracic Aerosol Deposition in Children Using a Spray-Dried Antibiotic Formulation and Pediatric Air-Jet DPI. Pharmaceutical Research, 2023, 40, 1193-1207.	1.7	2
2	Validating CFD predictions of nasal spray deposition: Inclusion of cloud motion effects for two spray pump designs. Aerosol Science and Technology, 2022, 56, 305-322.	1.5	14
3	Computational Fluid Dynamics (CFD) Guided Spray Drying Recommendations for Improved Aerosol Performance of a Small-Particle Antibiotic Formulation. Pharmaceutical Research, 2022, 39, 295-316.	1.7	6
4	<i>In Vitro</i>Analysis of Nasal Interface Options for High-Efficiency Aerosol Administration to Preterm Infants. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2022, 35, 196-211.	0.7	8
5	Characterizing the Effects of Nasal Prong Interfaces on Aerosol Deposition in a Preterm Infant Nasal Model. AAPS PharmSciTech, 2022, 23, 114.	1.5	6
6	Anatomically realistic nasal replicas capturing the range of nasal spray drug delivery in adults. International Journal of Pharmaceutics, 2022, 622, 121858.	2.6	2
7	Initial Development of an Air-Jet Dry Powder Inhaler for Rapid Delivery of Pharmaceutical Aerosols to Infants. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2021, 34, 57-70.	0.7	10
8	High-efficiency dry powder aerosol delivery to children: Review and application of new technologies. Journal of Aerosol Science, 2021, 153, 105692.	1.8	21
9	In vitro evaluation of regional nasal drug delivery using multiple anatomical nasal replicas of adult human subjects and two nasal sprays. International Journal of Pharmaceutics, 2021, 593, 120103.	2.6	13
10	Can Pharmacokinetic Studies Assess the Pulmonary Fate of Dry Powder Inhaler Formulations of Fluticasone Propionate?. AAPS Journal, 2021, 23, 48.	2.2	13
11	Performance of Low Air Volume Dry Powder Inhalers (LV-DPI) when Aerosolizing Excipient Enhanced Growth (EEG) Surfactant Powder Formulations. AAPS PharmSciTech, 2021, 22, 135.	1.5	6
12	Development and Characterization of Excipient Enhanced Growth (EEG) Surfactant Powder Formulations for Treating Neonatal Respiratory Distress Syndrome. AAPS PharmSciTech, 2021, 22, 136.	1.5	10
13	Importance of cloud motion and two-way momentum coupling in the transport of pharmaceutical nasal sprays. Journal of Aerosol Science, 2021, 156, 105770.	1.8	11
14	Advancement of the Infant Air-Jet Dry Powder Inhaler (DPI): Evaluation of Different Positive-Pressure Air Sources and Flow Rates. Pharmaceutical Research, 2021, 38, 1615-1632.	1.7	10
15	Development of an Inline Dry Powder Inhaler for Oral or Trans-Nasal Aerosol Administration to Children. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2020, 33, 83-98.	0.7	17
16	Using immersive simulation to engage student learners in a nonsterile compounding skills laboratory course. Currents in Pharmacy Teaching and Learning, 2020, 12, 313-319.	0.4	2
17	CFD Guided Optimization of Nose-to-Lung Aerosol Delivery in Adults: Effects of Inhalation Waveforms and Synchronized Aerosol Delivery. Pharmaceutical Research, 2020, 37, 199.	1.7	18
18	Characterization of excipient enhanced growth (EEG) tobramycin dry powder aerosol formulations. International Journal of Pharmaceutics, 2020, 591, 120027.	2.6	15

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19	Advancement of a Positive-Pressure Dry Powder Inhaler for Children: Use of a Vertical Aerosolization Chamber and Three-Dimensional Rod Array Interface. Pharmaceutical Research, 2020, 37, 177.	1.7	9
20	Excipient Enhanced Growth Aerosol Surfactant Replacement Therapy in an <i>In Vivo</i> Rat Lung Injury Model. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2020, 33, 314-322.	0.7	9
21	Dry powder aerosol containing muco-inert particles for excipient enhanced growth pulmonary drug delivery. Nanomedicine: Nanotechnology, Biology, and Medicine, 2020, 29, 102262.	1.7	11
22	Team teaching with pharmacy practice and pharmaceutics faculty in a nonsterile compounding laboratory course to increase student problem-solving skills. Currents in Pharmacy Teaching and Learning, 2020, 12, 320-325.	0.4	6
23	Computational Fluid Dynamics (CFD) Simulations of Spray Drying: Linking Drying Parameters with Experimental Aerosolization Performance. Pharmaceutical Research, 2020, 37, 101.	1.7	17
24	Devices for Improved Delivery of Nebulized Pharmaceutical Aerosols to the Lungs. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2019, 32, 317-339.	0.7	31
25	Use of Computational Fluid Dynamics (CFD) Dispersion Parameters in the Development of a New DPI Actuated with Low Air Volumes. Pharmaceutical Research, 2019, 36, 110.	1.7	21
26	Development of a High-Flow Nasal Cannula and Pharmaceutical Aerosol Combination Device. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2019, 32, 224-241.	0.7	14
27	High-Efficiency Nose-to-Lung Aerosol Delivery in an Infant: Development of a Validated Computational Fluid Dynamics Method. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2019, 32, 132-148.	0.7	30
28	Use of computational fluid dynamics deposition modeling in respiratory drug delivery. Expert Opinion on Drug Delivery, 2019, 16, 7-26.	2.4	77
29	Development of an Inline Dry Powder Inhaler That Requires Low Air Volume. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2018, 31, 255-265.	0.7	22
30	Application of an inline dry powder inhaler to deliver high dose pharmaceutical aerosols during low flow nasal cannula therapy. International Journal of Pharmaceutics, 2018, 546, 1-9.	2.6	24
31	Efficient Nose-to-Lung Aerosol Delivery with an Inline DPI Requiring Low Actuation Air Volume. Pharmaceutical Research, 2018, 35, 194.	1.7	21
32	<i>In Vitro</i> Tests for Aerosol Deposition. VI: Realistic Testing with Different Mouthâ€“Throat Models and <i>In Vitroâ€”In Vivo</i> Correlations for a Dry Powder Inhaler, Metered Dose Inhaler, and Soft Mist Inhaler. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2018, 31, 358-371.	0.7	47
33	The Development and Validation of anIn VitroAirway Model to Assess Realistic Airway Deposition and Drug Permeation Behavior of Orally Inhaled Products Across Synthetic Membranes. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2018, 31, 103-108.	0.7	3
34	Aerosol Drug Delivery During Noninvasive Positive Pressure Ventilation: Effects of Intersubject Variability and Excipient Enhanced Growth. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2017, 30, 190-205.	0.7	23
35	In vitro assessment of small charged pharmaceutical aerosols in a model of a ventilated neonate. Journal of Aerosol Science, 2017, 110, 25-35.	1.8	1
36	In Vitro Tests for Aerosol Deposition. V: Using Realistic Testing to Estimate Variations in Aerosol Properties at the Trachea. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2017, 30, 339-348.	0.7	16

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37	Small Airway Absorption and Microdosimetry of Inhaled Corticosteroid Particles after Deposition. Pharmaceutical Research, 2017, 34, 2049-2065.	1.7	13
38	Linking Suspension Nasal Spray Drug Deposition Patterns toÂPharmacokinetic Profiles: A Proof-of-Concept Study Using Computational Fluid Dynamics. Journal of Pharmaceutical Sciences, 2016, 105, 1995-2004.	1.6	34
39	Validating Whole-Airway CFD Predictions of DPI Aerosol Deposition at Multiple Flow Rates. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2016, 29, 461-481.	0.7	65
40	Absorption and Clearance of Pharmaceutical Aerosols in the Human Nose: Effects of Nasal Spray Suspension Particle Size and Properties. Pharmaceutical Research, 2016, 33, 909-921.	1.7	26
41	Generating charged pharmaceutical aerosols intended to improve targeted drug delivery in ventilated infants. Journal of Aerosol Science, 2015, 88, 35-47.	1.8	9
42	Production of Highly Charged Pharmaceutical Aerosols Using a New Aerosol Induction Charger. Pharmaceutical Research, 2015, 32, 3007-3017.	1.7	11
43	Characterization of a New High-Dose Dry Powder Inhaler (DPI) Based on a Fluidized Bed Design. Annals of Biomedical Engineering, 2015, 43, 2804-2815.	1.3	30
44	Validating CFD Predictions of Pharmaceutical Aerosol Deposition with In Vivo Data. Pharmaceutical Research, 2015, 32, 3170-3187.	1.7	93
45	Efficient Nose-to-Lung (N2L) Aerosol Delivery with a Dry Powder Inhaler. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2015, 28, 189-201.	0.7	36
46	Targeted Lung Delivery of Nasally Administered Aerosols. Aerosol Science and Technology, 2014, 48, 434-449.	1.5	33
47	Development of a High Efficiency Dry Powder Inhaler: Effects of Capsule Chamber Design and Inhaler Surface Modifications. Pharmaceutical Research, 2014, 31, 360-372.	1.7	32
48	Development of high efficiency ventilation bag actuated dry powder inhalers. International Journal of Pharmaceutics, 2014, 465, 52-62.	2.6	18
49	Development and Comparison of New High-Efficiency Dry Powder Inhalers for Carrier-Free Formulations. Journal of Pharmaceutical Sciences, 2014, 103, 465-477.	1.6	32
50	Development of a Transient Flow Aerosol Mixer-Heater System for Lung Delivery of Nasally Administered Aerosols Using a Nasal Cannula. Aerosol Science and Technology, 2014, 48, 1009-1021.	1.5	13
51	Variability in nose-to-lung aerosol delivery. Journal of Aerosol Science, 2014, 78, 11-29.	1.8	33
52	Improving Aerosol Drug Delivery During Invasive Mechanical Ventilation With Redesigned Components. Respiratory Care, 2014, 59, 686-698.	0.8	18
53	Optimal Delivery of Aerosols to Infants During Mechanical Ventilation. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2014, 27, 371-385.	0.7	17
54	Intermittent Aerosol Delivery to the Lungs During High-Flow Nasal Cannula Therapy. Respiratory Care, 2014, 59, 1476-1486.	0.8	41

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55	Evaluation and modification of commercial dry powder inhalers for the aerosolization of a submicrometer excipient enhanced growth (EEG) formulation. European Journal of Pharmaceutical Sciences, 2013, 49, 390-399.	1.9	58
56	Improving Pharmaceutical Aerosol Delivery During Noninvasive Ventilation: Effects of Streamlined Components. Annals of Biomedical Engineering, 2013, 41, 1217-1232.	1.3	44
57	High-Efficiency Generation and Delivery of Aerosols Through Nasal Cannula During Noninvasive Ventilation. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2013, 26, 266-279.	0.7	48
58	<i>In Vitro</i> Tests for Aerosol Deposition. III: Effect of Inhaler Insertion Angle on Aerosol Deposition. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2013, 26, 145-156.	0.7	45
59	Quantitative Analysis and Design of a Spray Aerosol Inhaler. Part 2: Improvements in Mouthpiece Performance. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2013, 26, 237-247.	0.7	15
60	Aerodynamic Factors Responsible for the Deaggregation of Carrier-Free Drug Powders to Form Micrometer and Submicrometer Aerosols. Pharmaceutical Research, 2013, 30, 1608-1627.	1.7	55
61	Aerosolization characteristics of dry powder inhaler formulations for the excipient enhanced growth (EEG) application: Effect of spray drying process conditions on aerosol performance. International Journal of Pharmaceutics, 2013, 443, 137-145.	2.6	86
62	<i>In Vitro</i>Tests for Aerosol Deposition II: IVIVCs for Different Dry Powder Inhalers in Normal Adults. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2013, 26, 138-144.	0.7	81
63	Targeting Aerosol Deposition to and Within the Lung Airways Using Excipient Enhanced Growth. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2013, 26, 248-265.	0.7	70
64	The Use of Condensational Growth Methods for Efficient Drug Delivery to the Lungs during Noninvasive Ventilation High Flow Therapy. Pharmaceutical Research, 2013, 30, 2917-2930.	1.7	55
65	Condensational growth of combination drug-excipient submicrometer particles for targeted high-efficiency pulmonary delivery: evaluation of formulation and delivery device. Journal of Pharmacy and Pharmacology, 2012, 64, 1254-1263.	1.2	62
66	Performance of Combination Drug and Hygroscopic Excipient Submicrometer Particles from a Softmist Inhaler in a Characteristic Model of the Airways. Annals of Biomedical Engineering, 2012, 40, 2596-2610.	1.3	47
67	Production of inhalable submicrometer aerosols from conventional mesh nebulizers for improved respiratory drug delivery. Journal of Aerosol Science, 2012, 51, 66-80.	1.8	34
68	Dynamic affinity chromatography in the separation of sulfated lignins binding to thrombin. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2012, 908, 45-51.	1.2	2
69	Development of a Stochastic Individual Path (SIP) Model for Predicting the Deposition of Pharmaceutical Aerosols: Effects of Turbulence, Polydisperse Aerosol Size, and Evaluation of Multiple Lung Lobes. Aerosol Science and Technology, 2012, 46, 1271-1285.	1.5	53
70	Comparing MDI and DPI Aerosol Deposition Using In Vitro Experiments and a New Stochastic Individual Path (SIP) Model of the Conducting Airways. Pharmaceutical Research, 2012, 29, 1670-1688.	1.7	142
71	Condensational Growth of Combination Drug-Excipient Submicrometer Particles for Targeted High Efficiency Pulmonary Delivery: Comparison of CFD Predictions with Experimental Results. Pharmaceutical Research, 2012, 29, 707-721.	1.7	59
72	Numerical Model to Characterize the Size Increase of Combination Drug and Hygroscopic Excipient Nanoparticle Aerosols. Aerosol Science and Technology, 2011, 45, 884-899.	1.5	72

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73	Development of a stochastic individual path (SIP) model for predicting the tracheobronchial deposition of pharmaceutical aerosols: Effects of transient inhalation and sampling the airways. Journal of Aerosol Science, 2011, 42, 781-799.	1.8	88
74	Characterization of Respiratory Drug Delivery with Enhanced Condensational Growth using an Individual Path Model of the Entire Tracheobronchial Airways. Annals of Biomedical Engineering, 2011, 39, 1136-1153.	1.3	79
75	A rapid and simple chemiluminescence method for screening levels of inosine and hypoxanthine in nonâ€traumatic chest pain patients. Luminescence, 2011, 26, 65-75.	1.5	15
76	Improving the Lung Delivery of Nasally Administered Aerosols During Noninvasive Ventilationâ€”An Application of Enhanced Condensational Growth (ECG). Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2011, 24, 103-118.	0.7	55
77	Evaluation of Enhanced Condensational Growth (ECG) for Controlled Respiratory Drug Delivery in a Mouth-Throat and Upper Tracheobronchial Model. Pharmaceutical Research, 2010, 27, 1800-1811.	1.7	62
78	Characterization of Nanoaerosol Size Change During Enhanced Condensational Growth. Aerosol Science and Technology, 2010, 44, 473-483.	1.5	43
79	<i>In Vivoâ€“In Vitro</i>Correlations: Predicting Pulmonary Drug Deposition from Pharmaceutical Aerosols. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2010, 23, S-59-S-69.	0.7	93
80	CFD simulations of enhanced condensational growth (ECG) applied to respiratory drug delivery with comparisons to in vitro data. Journal of Aerosol Science, 2010, 41, 805-820.	1.8	60
81	First steps in the direction of synthetic, allosteric, direct inhibitors of thrombin and factor Xa. Bioorganic and Medicinal Chemistry Letters, 2009, 19, 4126-4129.	1.0	36
82	Quantitative Analysis and Design of a Spray Aerosol Inhaler. Part 1: Effects of Dilution Air Inlets and Flow Paths. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2009, 22, 271-283.	0.7	35
83	Evaluation of the Respimat Soft Mist Inhaler using a Concurrent CFD and <i>In Vitro</i> Approach. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2009, 22, 99-112.	0.7	95
84	Effects of Generation Time on Spray Aerosol Transport and Deposition in Models of the Mouthâ€“Throat Geometry. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2009, 22, 67-84.	0.7	43
85	Comparison of ambient and spray aerosol deposition in a standard induction port and more realistic mouthâ€“throat geometry. Journal of Aerosol Science, 2008, 39, 572-591.	1.8	103
86	Numerical Simulations of Capillary Aerosol Generation: CFD Model Development and Comparisons with Experimental Data. Aerosol Science and Technology, 2007, 41, 952-973.	1.5	86
87	Rapid and efficient microwave-assisted synthesis of highly sulfated organic scaffolds. Tetrahedron Letters, 2007, 48, 6754-6758.	0.7	69
88	Novel chemo-enzymatic oligomers of cinnamic acids as direct and indirect inhibitors of coagulation proteinases. Bioorganic and Medicinal Chemistry, 2006, 14, 7988-7998.	1.4	59
89	Evaluation of Basic Compounding Skills of Pharmacy Students. American Journal of Pharmaceutical Education, 2005, 69, 69.	0.7	23
90	Chromatographic and mass spectral characterization of budesonide and a series of structurally related corticosteroids using LCâ€“MS. Journal of Pharmaceutical and Biomedical Analysis, 2005, 39, 196-205.	1.4	22

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91	Stability and characterization of perphenazine aerosols generated using the capillary aerosol generator. International Journal of Pharmaceutics, 2005, 303, 113-124.	2.6	13
92	Structural Characterization of a Serendipitously Discovered Bioactive Macromolecule, Lignin Sulfate. Biomacromolecules, 2005, 6, 2822-2832.	2.6	25
93	Aerodynamic sizing of metered dose inhalers: An evaluation of the andersen and next generation pharmaceutical impactors and their USP methods. Journal of Pharmaceutical Sciences, 2004, 93, 1828-1837.	1.6	31
94	Effect of energy on propylene glycol aerosols using the capillary aerosol generator. International Journal of Pharmaceutics, 2004, 275, 249-258.	2.6	23
95	Response to key issues raised in the Post-14 mathematics inquiry. International Journal of Mathematical Education in Science and Technology, 2004, 35, 633-660.	0.8	1
96	Investigation of a Novel Condensation Aerosol Generator: Solute and Solvent Effects. Aerosol Science and Technology, 2003, 37, 672-681.	1.5	29
97	Control of Particle Size by Coagulation of Novel Condensation Aerosols in Reservoir Chambers. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2002, 15, 359-368.	1.2	11
98	A stability-indicating HPLC assay method for budesonide. Journal of Pharmaceutical and Biomedical Analysis, 2001, 24, 371-380.	1.4	35
99	Water Vapor Sorption Studies on the Physical Stability of a Series of Spray-Dried Protein/Sugar Powders for Inhalation. Journal of Pharmaceutical Sciences, 1998, 87, 1316-1321.	1.6	45
100	Relative bioavailability of salbutamol to the lung following inhalation via a novel dry powder inhaler and a standard metered dose inhaler. British Journal of Clinical Pharmacology, 1997, 43, 336-338.	1.1	15
101	Cascade impaction methods for dry powder inhalers using the high flowrate Marple-Miller impactor. International Journal of Pharmaceutics, 1996, 134, 137-146.	2.6	17
102	Dry Powder Inhalers Are Bioequivalent to Metered-Dose Inhalers. Chest, 1995, 107, 629-633.	0.4	46
103	Dose emissions from marketed dry powder inhalers. International Journal of Pharmaceutics, 1995, 116, 169-177.	2.6	97
104	Relative bioavailability of salbutamol to the lung following inhalation using metered dose inhalation methods and spacer devices.. Thorax, 1994, 49, 549-553.	2.7	70
105	Investigations of an optimal inhaler technique with the use of urinary salbutamol excretion as a measure of relative bioavailability to the lung.. Thorax, 1993, 48, 607-610.	2.7	86
106	Determination of the relative bioavailability of salbutamol to the lung following inhalation [see comments]. British Journal of Clinical Pharmacology, 1992, 34, 311-315.	1.1	148
107	Aerosol Drug Delivery. , 0, , 683-727.		1