Catherine A Fromen

List of Publications by Year
in descending order

37 papers	1,097 citations	516710 16 h-index	434195 31 g-index
39 all docs	39 docs citations	39 times ranked	1742 citing authors

#	Article	IF	Citations
1	Controlled analysis of nanoparticle charge on mucosal and systemic antibody responses following pulmonary immunization. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 488-493.	7.1	124
2	Nanoparticle surface charge impacts distribution, uptake and lymph node trafficking by pulmonary antigen-presenting cells. Nanomedicine: Nanotechnology, Biology, and Medicine, 2016, 12, 677-687.	3.3	119
3	Evaluating UiO-66 Metalâ€“Organic Framework Nanoparticles as Acid-Sensitive Carriers for Pulmonary Drug Delivery Applications. ACS Applied Materials & Interfaces, 2020, 12, 38989-39004.	8.0	102
4	Neutrophilâ€“Particle Interactions in Blood Circulation Drive Particle Clearance and Alter Neutrophil Responses in Acute Inflammation. ACS Nano, 2017, 11, 10797-10807.	14.6	71
5	PEGylation of model drug carriers enhances phagocytosis by primary human neutrophils. Acta Biomaterialia, 2018, 79, 283-293.	8.3	65
6	Microfabricated Engineered Particle Systems for Respiratory Drug Delivery and Other Pharmaceutical Applications. Journal of Drug Delivery, 2012, 2012, 1-10.	2.5	52
7	Emergence and Utility of Nonspherical Particles in Biomedicine. Industrial & Engineering Chemistry Research, 2015, 54, 4043-4059.	3.7	52
8	Tumor Presence Induces Global Immune Changes and Enhances Nanoparticle Clearance. ACS Nano, 2016, 10, 861-870.	14.6	51
9	Degradation profiles of poly(ethylene glycol)diacrylate (PEGDA)-based hydrogel nanoparticles. Polymer Chemistry, 2020, 11, 568-580.	3.9	46
10	Exploring deformable particles in vascular-targeted drug delivery: Softer is only sometimes better. Biomaterials, 2017, 124, 169-179.	11.4	45
11	Controlling Size, Defectiveness, and Fluorescence in Nanoparticle UiO-66 through Water and Ligand Modulation. Chemistry of Materials, 2019, 31, 4831-4839.	6.7	41
12	Generation of a Library of Particles Having Controlled Sizes and Shapes via the Mechanical Elongation of Master Templates. Langmuir, 2011, 27, 524-528.	3.5	36
13	Distribution and Cellular Uptake of PEGylated Polymeric Particles in the Lung Towards Cell-Specific Targeted Delivery. Pharmaceutical Research, 2015, 32, 3248-3260.	3.5	36
14	Glottis motion effects on the particle transport and deposition in a subject-specific mouth-to-trachea model: A CFPD study. Computers in Biology and Medicine, 2020, 116, 103532.	7.0	31
15	Deformable microparticles for shuttling nanoparticles to the vascular wall. Science Advances, 2021, 7, .	10.3	28
16	Evaluation of receptorâ€ligand mechanisms of dualâ€targeted particles to an inflamed endothelium. Bioengineering and Translational Medicine, 2016, 1, 103-115.	7.1	23
17	Polymeric Nanoparticles. , 2020, , 303-324.		23
18	Biomaterials-Based Opportunities to Engineer the Pulmonary Host Immune Response in COVID-19. ACS Biomaterials Science and Engineering, 2021, 7, 1742-1764.	5.2	16

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19	Pulmonary Delivery of Butyrylcholinesterase as a Model Protein to the Lung. Molecular Pharmaceutics, 2016, 13, 1626-1635.	4.6	15
20	Check the gap: Facemask performance and exhaled aerosol distributions around the wearer. PLoS ONE, 2020, 15, e0243885.	2.5	15
21	Realizing Lobe-Specific Aerosol Targeting in a 3D-Printed In Vitro Lung Model. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2021, 34, 42-56.	1.4	14
22	Drug carrier interaction with blood: a critical aspect for high-efficient vascular-targeted drug delivery systems. Therapeutic Delivery, 2015, 6, 915-934.	2.2	13
23	Scalable<scp>3D</scp>â€printed lattices for pressure control in fluid applications. AICHE Journal, 2021, 67, e17452.	3.6	12
24	Synthesis and characterization of monodisperse uniformly shaped respirable aerosols. AICHE Journal, 2013, 59, 3184-3194.	3.6	11
25	Inhalable mRNA vaccines for respiratory diseases: a roadmap. Current Opinion in Biotechnology, 2022, 74, 104-109.	6.6	10
26	Model Particulate Drug Carriers Modulate Leukocyte Adhesion in Human Blood Flows. ACS Biomaterials Science and Engineering, 2019, 5, 6530-6540.	5.2	9
27	Potent Immune Stimulation from Nanoparticle Carriers Relies on the Interplay of Adjuvant Surface Density and Adjuvant Mass Distribution. ACS Biomaterials Science and Engineering, 2017, 3, 560-571.	5.2	8
28	Scalable, process-oriented beam lattices: Generation, characterization, and compensation for open cellular structures. Additive Manufacturing, 2021, 48, 102386.	3.0	7
29	Hydrogel nanoparticle degradation influences the activation and survival of primary macrophages. Journal of Materials Chemistry B, 2021, 9, 7246-7257.	5.8	6
30	Significant Unresolved Questions and Opportunities for Bioengineering in Understanding and Treating COVID-19 Disease Progression. Cellular and Molecular Bioengineering, 2020, 13, 259-284.	2.1	5
31	Nanoparticle Internalization Promotes the Survival of Primary Macrophages. Advanced NanoBiomed Research, 2022, 2, .	3.6	5
32	Modeling the effects of microencapsulation on the electro-optic behavior of polymer cholesteric liquid crystal flakes. Journal of Applied Physics, 2009, 106, 124911.	2.5	3
33	Evaluating Regional Pulmonary Deposition using Patient-Specific 3D Printed Lung Models. Journal of Visualized Experiments, 2020, , .	0.3	1
34	Biomedical Nanopreparations with Controlled Geometry. Frontiers in Nanobiomedical Research, 2014, , 349-400.	0.1	0
35	Geometric model to predict improvement after lingual frenulectomy for ankyloglossia. International Journal of Pediatric Otorhinolaryngology, 2020, 134, 110063.	1.0	0
36	The HensNest: Mass Manufacturing a General Use Face Mask Here in Delaware. Delaware Journal of Public Health, 2020, 6, 36-38.	0.3	0

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37	Engineering Preclinical Tools and Therapeutics to Understand and Treat COVID-19. Delaware Journal of Public Health, 2020, 6, 32-35.	0.3	0