

Robert Samuel Langer Jr

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9218673/publications.pdf>

Version: 2024-02-01

367
papers

117,711
citations

293

139
h-index

130

335
g-index

377
all docs

377
docs citations

377
times ranked

92320
citing authors

#	ARTICLE	IF	CITATIONS
1	Tissue engineering. <i>Science</i> , 1993, 260, 920-926.	6.0	9,341
2	Nanocarriers as an emerging platform for cancer therapy. <i>Nature Nanotechnology</i> , 2007, 2, 751-760.	15.6	7,469
3	Hydrogels in Biology and Medicine: From Molecular Principles to Bionanotechnology. <i>Advanced Materials</i> , 2006, 18, 1345-1360.	11.1	3,481
4	Engineering precision nanoparticles for drug delivery. <i>Nature Reviews Drug Discovery</i> , 2021, 20, 101-124.	21.5	3,154
5	Designing materials for biology and medicine. <i>Nature</i> , 2004, 428, 487-492.	13.7	2,876
6	Impact of Nanotechnology on Drug Delivery. <i>ACS Nano</i> , 2009, 3, 16-20.	7.3	2,760
7	Biodegradable long-circulating polymeric nanospheres. <i>Science</i> , 1994, 263, 1600-1603.	6.0	2,705
8	Knocking down barriers: advances in siRNA delivery. <i>Nature Reviews Drug Discovery</i> , 2009, 8, 129-138.	21.5	2,639
9	Transdermal drug delivery. <i>Nature Biotechnology</i> , 2008, 26, 1261-1268.	9.4	2,445
10	Polymeric Systems for Controlled Drug Release. <i>Chemical Reviews</i> , 1999, 99, 3181-3198.	23.0	2,390
11	Biodegradable, Elastic Shape-Memory Polymers for Potential Biomedical Applications. <i>Science</i> , 2002, 296, 1673-1676.	6.0	1,971
12	Light-induced shape-memory polymers. <i>Nature</i> , 2005, 434, 879-882.	13.7	1,808
13	New methods of drug delivery. <i>Science</i> , 1990, 249, 1527-1533.	6.0	1,632
14	Drug delivery and targeting. <i>Nature</i> , 1998, 392, 5-10.	13.7	1,587
15	CRISPR-Cas9 Knockin Mice for Genome Editing and Cancer Modeling. <i>Cell</i> , 2014, 159, 440-455.	13.5	1,566
16	Delivery technologies for cancer immunotherapy. <i>Nature Reviews Drug Discovery</i> , 2019, 18, 175-196.	21.5	1,562
17	Nanoparticle Delivery of Cancer Drugs. <i>Annual Review of Medicine</i> , 2012, 63, 185-198.	5.0	1,347
18	Overcoming the challenges in administering biopharmaceuticals: formulation and delivery strategies. <i>Nature Reviews Drug Discovery</i> , 2014, 13, 655-672.	21.5	1,261

#	ARTICLE	IF	CITATIONS
19	Lipid nanoparticles for mRNA delivery. <i>Nature Reviews Materials</i> , 2021, 6, 1078-1094.	23.3	1,256
20	Supramolecular biomaterials. <i>Nature Materials</i> , 2016, 15, 13-26.	13.3	1,226
21	Small-scale systems for in vivo drug delivery. <i>Nature Biotechnology</i> , 2003, 21, 1184-1191.	9.4	1,225
22	Formulation of functionalized PLGA-PEG nanoparticles for in vivo targeted drug delivery. <i>Biomaterials</i> , 2007, 28, 869-876.	5.7	1,151
23	Current status and future potential of transdermal drug delivery. <i>Nature Reviews Drug Discovery</i> , 2004, 3, 115-124.	21.5	1,121
24	Bioresponsive materials. <i>Nature Reviews Materials</i> , 2017, 2, .	23.3	1,117
25	Polymers for the sustained release of proteins and other macromolecules. <i>Nature</i> , 1976, 263, 797-800.	13.7	1,104
26	Large Porous Particles for Pulmonary Drug Delivery. <i>Science</i> , 1997, 276, 1868-1872.	6.0	1,080
27	A combinatorial library of lipid-like materials for delivery of RNAi therapeutics. <i>Nature Biotechnology</i> , 2008, 26, 561-569.	9.4	1,076
28	Advances in oligonucleotide drug delivery. <i>Nature Reviews Drug Discovery</i> , 2020, 19, 673-694.	21.5	1,036
29	Molecularly self-assembled nucleic acid nanoparticles for targeted in vivo siRNA delivery. <i>Nature Nanotechnology</i> , 2012, 7, 389-393.	15.6	1,015
30	New challenges in biomaterials. <i>Science</i> , 1994, 263, 1715-1720.	6.0	1,013
31	Preclinical Development and Clinical Translation of a PSMA-Targeted Docetaxel Nanoparticle with a Differentiated Pharmacological Profile. <i>Science Translational Medicine</i> , 2012, 4, 128ra39.	5.8	978
32	Targeted delivery of cisplatin to prostate cancer cells by aptamer functionalized Pt(IV) prodrug-PLGA-PEG nanoparticles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 17356-17361.	3.3	904
33	Self-Assembled Lipid-Polymer Hybrid Nanoparticles: A Robust Drug Delivery Platform. <i>ACS Nano</i> , 2008, 2, 1696-1702.	7.3	851
34	A controlled-release microchip. <i>Nature</i> , 1999, 397, 335-338.	13.7	839
35	Lipid-like materials for low-dose, in vivo gene silencing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 1864-1869.	3.3	776
36	Emerging Frontiers in Drug Delivery. <i>Journal of the American Chemical Society</i> , 2016, 138, 704-717.	6.6	776

#	ARTICLE	IF	CITATIONS
37	Therapeutic genome editing by combined viral and non-viral delivery of CRISPR system components in vivo. <i>Nature Biotechnology</i> , 2016, 34, 328-333.	9.4	732
38	Microfluidic Platform for Controlled Synthesis of Polymeric Nanoparticles. <i>Nano Letters</i> , 2008, 8, 2906-2912.	4.5	728
39	Ultrasound-mediated transdermal protein delivery. <i>Science</i> , 1995, 269, 850-853.	6.0	722
40	The controlled intravenous delivery of drugs using PEG-coated sterically stabilized nanospheres. <i>Advanced Drug Delivery Reviews</i> , 1995, 16, 215-233.	6.6	717
41	Size- and shape-dependent foreign body immune response to materials implanted in rodents and non-human primates. <i>Nature Materials</i> , 2015, 14, 643-651.	13.3	700
42	Therapeutic siRNA silencing in inflammatory monocytes in mice. <i>Nature Biotechnology</i> , 2011, 29, 1005-1010.	9.4	697
43	Biomaterials in Drug Delivery and Tissue Engineering: One Laboratory's Experience. <i>Accounts of Chemical Research</i> , 2000, 33, 94-101.	7.6	662
44	In vitro and ex vivo strategies for intracellular delivery. <i>Nature</i> , 2016, 538, 183-192.	13.7	662
45	Efficiency of siRNA delivery by lipid nanoparticles is limited by endocytic recycling. <i>Nature Biotechnology</i> , 2013, 31, 653-658.	9.4	660
46	Precise engineering of targeted nanoparticles by using self-assembled biointegrated block copolymers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 2586-2591.	3.3	649
47	PLGA-lecithin-PEG core-shell nanoparticles for controlled drug delivery. <i>Biomaterials</i> , 2009, 30, 1627-1634.	5.7	620
48	Present and future applications of biomaterials in controlled drug delivery systems. <i>Biomaterials</i> , 1981, 2, 201-214.	5.7	576
49	A decade of progress in tissue engineering. <i>Nature Protocols</i> , 2016, 11, 1775-1781.	5.5	570
50	Advances in Biomaterials for Drug Delivery. <i>Advanced Materials</i> , 2018, 30, e1705328.	11.1	565
51	Long-term glycemic control using polymer-encapsulated human stem cell-derived beta cells in immune-competent mice. <i>Nature Medicine</i> , 2016, 22, 306-311.	15.2	564
52	Bioplastics for a circular economy. <i>Nature Reviews Materials</i> , 2022, 7, 117-137.	23.3	550
53	DRUG DELIVERY: Drugs on Target. <i>Science</i> , 2001, 293, 58-59.	6.0	549
54	Mechanistic understanding of in vivo protein corona formation on polymeric nanoparticles and impact on pharmacokinetics. <i>Nature Communications</i> , 2017, 8, 777.	5.8	507

#	ARTICLE	IF	CITATIONS
55	Lipid Nanoparticle Assisted mRNA Delivery for Potent Cancer Immunotherapy. <i>Nano Letters</i> , 2017, 17, 1326-1335.	4.5	506
56	Intracellular Delivery by Membrane Disruption: Mechanisms, Strategies, and Concepts. <i>Chemical Reviews</i> , 2018, 118, 7409-7531.	23.0	490
57	In vivo endothelial siRNA delivery using polymeric nanoparticles with low molecular weight. <i>Nature Nanotechnology</i> , 2014, 9, 648-655.	15.6	466
58	Niche-independent high-purity cultures of Lgr5+ intestinal stem cells and their progeny. <i>Nature Methods</i> , 2014, 11, 106-112.	9.0	466
59	Injectable Self-Healing Glucose-Responsive Hydrogels with pH-Regulated Mechanical Properties. <i>Advanced Materials</i> , 2016, 28, 86-91.	11.1	466
60	Managing diabetes with nanomedicine: challenges and opportunities. <i>Nature Reviews Drug Discovery</i> , 2015, 14, 45-57.	21.5	459
61	Semi-Automated Synthesis and Screening of a Large Library of Degradable Cationic Polymers for Gene Delivery. <i>Angewandte Chemie - International Edition</i> , 2003, 42, 3153-3158.	7.2	445
62	A BioMEMS Review: MEMS Technology for Physiologically Integrated Devices. <i>Proceedings of the IEEE</i> , 2004, 92, 6-21.	16.4	438
63	Degradable lipid nanoparticles with predictable in vivo siRNA delivery activity. <i>Nature Communications</i> , 2014, 5, 4277.	5.8	431
64	Self-assembled hydrogels utilizing polymer-nanoparticle interactions. <i>Nature Communications</i> , 2015, 6, 6295.	5.8	425
65	Combinatorial hydrogel library enables identification of materials that mitigate the foreign body response in primates. <i>Nature Biotechnology</i> , 2016, 34, 345-352.	9.4	417
66	mRNA vaccine delivery using lipid nanoparticles. <i>Therapeutic Delivery</i> , 2016, 7, 319-334.	1.2	414
67	Photoswitchable Nanoparticles for Triggered Tissue Penetration and Drug Delivery. <i>Journal of the American Chemical Society</i> , 2012, 134, 8848-8855.	6.6	413
68	Multi-pulse drug delivery from a resorbable polymeric microchip device. <i>Nature Materials</i> , 2003, 2, 767-772.	13.3	411
69	Delivery of mRNA vaccines with heterocyclic lipids increases anti-tumor efficacy by STING-mediated immune cell activation. <i>Nature Biotechnology</i> , 2019, 37, 1174-1185.	9.4	398
70	Injectable Nano-Network for Glucose-Mediated Insulin Delivery. <i>ACS Nano</i> , 2013, 7, 4194-4201.	7.3	395
71	Lipid-based nanotherapeutics for siRNA delivery. <i>Journal of Internal Medicine</i> , 2010, 267, 9-21.	2.7	394
72	Accelerated Discovery of Synthetic Transfection Vectors: Parallel Synthesis and Screening of a Degradable Polymer Library. <i>Journal of the American Chemical Society</i> , 2001, 123, 8155-8156.	6.6	390

#	ARTICLE	IF	CITATIONS
73	A vector-free microfluidic platform for intracellular delivery. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2082-2087.	3.3	386
74	An ingestible bacterial-electronic system to monitor gastrointestinal health. Science, 2018, 360, 915-918.	6.0	380
75	Structure-guided chemical modification of guide RNA enables potent non-viral in vivo genome editing. Nature Biotechnology, 2017, 35, 1179-1187.	9.4	375
76	Polyanhydrides: an overview. Advanced Drug Delivery Reviews, 2002, 54, 889-910.	6.6	372
77	Lipopeptide nanoparticles for potent and selective siRNA delivery in rodents and nonhuman primates. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3955-3960.	3.3	366
78	Polymeric synthetic nanoparticles for the induction of antigen-specific immunological tolerance. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E156-65.	3.3	364
79	First-in-Human Testing of a Wirelessly Controlled Drug Delivery Microchip. Science Translational Medicine, 2012, 4, 122ra21.	5.8	360
80	Glucose-responsive insulin patch for the regulation of blood glucose in mice and minipigs. Nature Biomedical Engineering, 2020, 4, 499-506.	11.6	353
81	A Magnetically Triggered Composite Membrane for On-Demand Drug Delivery. Nano Letters, 2009, 9, 3651-3657.	4.5	335
82	Combinatorial discovery of polymers resistant to bacterial attachment. Nature Biotechnology, 2012, 30, 868-875.	9.4	328
83	Dendrimer-RNA nanoparticles generate protective immunity against lethal Ebola, H1N1 influenza, and <i>Toxoplasma gondii</i> challenges with a single dose. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E4133-42.	3.3	320
84	Micromolding of shape-controlled, harvestable cell-laden hydrogels. Biomaterials, 2006, 27, 5391-5398.	5.7	318
85	Development of Lipidoid siRNA Formulations for Systemic Delivery to the Liver. Molecular Therapy, 2009, 17, 872-879.	3.7	312
86	Ultrasound-enhanced polymer degradation and release of incorporated substances.. Proceedings of the National Academy of Sciences of the United States of America, 1989, 86, 7663-7666.	3.3	308
87	Advancing the field of drug delivery. Cancer Cell, 2003, 4, 337-341.	7.7	304
88	Enhancing tumor cell response to chemotherapy through nanoparticle-mediated codelivery of siRNA and cisplatin prodrug. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18638-18643.	3.3	302
89	Electrically Controlled Drug Delivery from Biotin-Doped Conductive Polypyrrole. Advanced Materials, 2006, 18, 577-581.	11.1	288
90	An ingestible self-orienting system for oral delivery of macromolecules. Science, 2019, 363, 611-615.	6.0	287

#	ARTICLE	IF	CITATIONS
91	Sustained antigen availability during germinal center initiation enhances antibody responses to vaccination. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E6639-E6648.	3.3	286
92	INVITED REVIEW POLYMERIC DELIVERY SYSTEMS FOR CONTROLLED DRUG RELEASE. <i>Chemical Engineering Communications</i> , 1980, 6, 1-48.	1.5	281
93	MATERIALS SCIENCE: Smart Biomaterials. <i>Science</i> , 2004, 305, 1923-1924.	6.0	281
94	Controlled Structure and Properties of Thermo-responsive Nanoparticle-Hydrogel Composites. <i>Advanced Materials</i> , 2004, 16, 1074-1079.	11.1	278
95	Blocking CXCR4 alleviates desmoplasia, increases T-lymphocyte infiltration, and improves immunotherapy in metastatic breast cancer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 4558-4566.	3.3	274
96	A pH-responsive supramolecular polymer gel as an enteric elastomer for use in gastric devices. <i>Nature Materials</i> , 2015, 14, 1065-1071.	13.3	268
97	AB-polymer networks based on oligo(ϵ -caprolactone) segments showing shape-memory properties. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 842-847.	3.3	267
98	Molecularly engineered poly(ortho ester) microspheres for enhanced delivery of DNA vaccines. <i>Nature Materials</i> , 2004, 3, 190-196.	13.3	261
99	Alginate encapsulation as long-term immune protection of allogeneic pancreatic islet cells transplanted into the omental bursa of macaques. <i>Nature Biomedical Engineering</i> , 2018, 2, 810-821.	11.6	242
100	Polymeric Materials for Gene Delivery and DNA Vaccination. <i>Advanced Materials</i> , 2009, 21, 847-867.	11.1	241
101	Magnetically Triggered Nanocomposite Membranes: A Versatile Platform for Triggered Drug Release. <i>Nano Letters</i> , 2011, 11, 1395-1400.	4.5	241
102	Immunocompatibility properties of lipid-polymer hybrid nanoparticles with heterogeneous surface functional groups. <i>Biomaterials</i> , 2009, 30, 2231-2240.	5.7	240
103	Layer-by-Layer Encapsulation of Probiotics for Delivery to the Microbiome. <i>Advanced Materials</i> , 2016, 28, 9486-9490.	11.1	239
104	Evolution of macromolecular complexity in drug delivery systems. <i>Nature Reviews Chemistry</i> , 2017, 1, .	13.8	233
105	Nanotechnology approaches for global infectious diseases. <i>Nature Nanotechnology</i> , 2021, 16, 369-384.	15.6	232
106	A materials-science perspective on tackling COVID-19. <i>Nature Reviews Materials</i> , 2020, 5, 847-860.	23.3	228
107	Biocompatible Semiconductor Quantum Dots as Cancer Imaging Agents. <i>Advanced Materials</i> , 2018, 30, e1706356.	11.1	227
108	Hyaluronic Acid-Based Microgels and Microgel Networks for Vocal Fold Regeneration. <i>Biomacromolecules</i> , 2006, 7, 3336-3344.	2.6	221

#	ARTICLE	IF	CITATIONS
109	Colony stimulating factor-1 receptor is a central component of the foreign body response to biomaterial implants in rodents and non-human primates. <i>Nature Materials</i> , 2017, 16, 671-680.	13.3	214
110	Restoration of tumour-growth suppression in vivo via systemic nanoparticle-mediated delivery of PTEN mRNA. <i>Nature Biomedical Engineering</i> , 2018, 2, 850-864.	11.6	214
111	Inhaled Nanoformulated mRNA Polyplexes for Protein Production in Lung Epithelium. <i>Advanced Materials</i> , 2019, 31, e1805116.	11.1	212
112	Cytoskeletal filament assembly and the control of cell spreading and function by extracellular matrix. <i>Journal of Cell Science</i> , 1995, 108, 2311-2320.	1.2	211
113	Polyanhydrides. I. Preparation of high molecular weight polyanhydrides. <i>Journal of Polymer Science Part A</i> , 1987, 25, 3373-3386.	2.5	210
114	Small RNA combination therapy for lung cancer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E3553-61.	3.3	210
115	Engineering and physical sciences in oncology: challenges and opportunities. <i>Nature Reviews Cancer</i> , 2017, 17, 659-675.	12.8	204
116	A Novel Mechanism Is Involved in Cationic Lipid-Mediated Functional siRNA Delivery. <i>Molecular Pharmaceutics</i> , 2009, 6, 763-771.	2.3	195
117	Glucose-responsive insulin activity by covalent modification with aliphatic phenylboronic acid conjugates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 2401-2406.	3.3	190
118	Partial DNA-guided Cas9 enables genome editing with reduced off-target activity. <i>Nature Chemical Biology</i> , 2018, 14, 311-316.	3.9	186
119	Barcoded nanoparticles for high throughput in vivo discovery of targeted therapeutics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 2060-2065.	3.3	185
120	Oral, ultra-long-lasting drug delivery: Application toward malaria elimination goals. <i>Science Translational Medicine</i> , 2016, 8, 365ra157.	5.8	181
121	Vascular Catheters with a Nonleaching Poly-Sulfobetaine Surface Modification Reduce Thrombus Formation and Microbial Attachment. <i>Science Translational Medicine</i> , 2012, 4, 153ra132.	5.8	180
122	Development of an oral once-weekly drug delivery system for HIV antiretroviral therapy. <i>Nature Communications</i> , 2018, 9, 2.	5.8	180
123	Near-infrared-actuated devices for remotely controlled drug delivery. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 1349-1354.	3.3	177
124	Rapid, deep and precise profiling of the plasma proteome with multi-nanoparticle protein corona. <i>Nature Communications</i> , 2020, 11, 3662.	5.8	175
125	Synthesis and Biological Evaluation of Ionizable Lipid Materials for the In Vivo Delivery of Messenger RNA to B Lymphocytes. <i>Advanced Materials</i> , 2017, 29, 1606944.	11.1	174
126	Bioinspired Alkenyl Amino Alcohol Ionizable Lipid Materials for Highly Potent In Vivo mRNA Delivery. <i>Advanced Materials</i> , 2016, 28, 2939-2943.	11.1	172

#	ARTICLE	IF	CITATIONS
127	Probing nanoparticle translocation across the permeable endothelium in experimental atherosclerosis. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 1078-1083.	3.3	171
128	RNAi targeting multiple cell adhesion molecules reduces immune cell recruitment and vascular inflammation after myocardial infarction. Science Translational Medicine, 2016, 8, 342ra80.	5.8	169
129	A luminal unfolding microneedle injector for oral delivery of macromolecules. Nature Medicine, 2019, 25, 1512-1518.	15.2	167
130	Fabrication of fillable microparticles and other complex 3D microstructures. Science, 2017, 357, 1138-1142.	6.0	163
131	Silencing or Stimulation? siRNA Delivery and the Immune System. Annual Review of Chemical and Biomolecular Engineering, 2011, 2, 77-96.	3.3	161
132	Exhaled aerosol increases with COVID-19 infection, age, and obesity. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	161
133	High-throughput nuclear delivery and rapid expression of DNA via mechanical and electrical cell-membrane disruption. Nature Biomedical Engineering, 2017, 1, .	11.6	158
134	Regulation of drug release from polymer matrices by oscillating magnetic fields. Journal of Biomedical Materials Research Part B, 1985, 19, 67-83.	3.0	151
135	Combinatorial Modification of Degradable Polymers Enables Transfection of Human Cells Comparable to Adenovirus. Advanced Materials, 2007, 19, 2836-2842.	11.1	151
136	An implantable microdevice to perform high-throughput in vivo drug sensitivity testing in tumors. Science Translational Medicine, 2015, 7, 284ra57.	5.8	150
137	Reduction of measurement noise in a continuous glucose monitor by coating the sensor with a zwitterionic polymer. Nature Biomedical Engineering, 2018, 2, 894-906.	11.6	150
138	Reprogramming the microenvironment with tumor-selective angiotensin blockers enhances cancer immunotherapy. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10674-10680.	3.3	150
139	Magnetically enhanced insulin release in diabetic rats. Journal of Biomedical Materials Research Part B, 1987, 21, 1367-1373.	3.0	148
140	Controlled delivery systems for proteins using polyanhydride microspheres. Pharmaceutical Research, 1993, 10, 487-496.	1.7	148
141	Prolonged energy harvesting for ingestible devices. Nature Biomedical Engineering, 2017, 1, .	11.6	148
142	Ingestible electronics for diagnostics and therapy. Nature Reviews Materials, 2019, 4, 83-98.	23.3	146
143	Adjuvant-carrying synthetic vaccine particles augment the immune response to encapsulated antigen and exhibit strong local immune activation without inducing systemic cytokine release. Vaccine, 2014, 32, 2882-2895.	1.7	144
144	Smart Biomaterials: Recent Advances and Future Directions. ACS Biomaterials Science and Engineering, 2018, 4, 3809-3817.	2.6	135

#	ARTICLE	IF	CITATIONS
145	Applications of ethylene vinyl acetate copolymers (EVA) in drug delivery systems. Journal of Controlled Release, 2017, 262, 284-295.	4.8	134
146	Microneedles for Drug Delivery via the Gastrointestinal Tract. Journal of Pharmaceutical Sciences, 2015, 104, 362-367.	1.6	133
147	Multiparametric approach for the evaluation of lipid nanoparticles for siRNA delivery. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12881-12886.	3.3	131
148	Design and Synthesis of Waterborne Polyurethanes. Advanced Materials, 2018, 30, e1706237.	11.1	131
149	Stimuli-responsive transdermal microneedle patches. Materials Today, 2021, 47, 206-222.	8.3	129
150	Characterization of Mechanically Matched Hydrogel Coatings to Improve the Biocompatibility of Neural Implants. Scientific Reports, 2017, 7, 1952.	1.6	126
151	The surface topography of silicone breast implants mediates the foreign body response in mice, rabbits and humans. Nature Biomedical Engineering, 2021, 5, 1115-1130.	11.6	126
152	Ly6Clo monocytes drive immunosuppression and confer resistance to anti-VEGFR2 cancer therapy. Journal of Clinical Investigation, 2017, 127, 3039-3051.	3.9	124
153	In vivo release from a drug delivery MEMS device. Journal of Controlled Release, 2004, 100, 211-219.	4.8	123
154	Nucleic acid delivery for therapeutic applications. Advanced Drug Delivery Reviews, 2021, 178, 113834.	6.6	122
155	Direct Patterning of Protein- and Cell-Resistant Polymeric Monolayers and Microstructures. Advanced Materials, 2003, 15, 1995-2000.	11.1	120
156	Genetic and hypoxic alterations of the micro RNA μ 210 μ ISCU 1/2 axis promote iron-sulfur deficiency and pulmonary hypertension. EMBO Molecular Medicine, 2015, 7, 695-713.	3.3	120
157	Chiral Supraparticles for Controllable Nanomedicine. Advanced Materials, 2020, 32, e1903878.	11.1	118
158	Engineered PLGA microparticles for long-term, pulsatile release of STING agonist for cancer immunotherapy. Science Translational Medicine, 2020, 12, .	5.8	117
159	Promoting Convergence in Biomedical Science. Science, 2011, 333, 527-527.	6.0	116
160	Long-term implant fibrosis prevention in rodents and non-human primates using crystallized drug formulations. Nature Materials, 2019, 18, 892-904.	13.3	114
161	Dendrimer-Inspired Nanomaterials for the <i>In Vivo</i> Delivery of siRNA to Lung Vasculature. Nano Letters, 2015, 15, 3008-3016.	4.5	113
162	Glucose-Responsive Nanoparticles for Rapid and Extended Self-Regulated Insulin Delivery. ACS Nano, 2020, 14, 488-497.	7.3	113

#	ARTICLE	IF	CITATIONS
163	Systemic RNAi-mediated Gene Silencing in Nonhuman Primate and Rodent Myeloid Cells. <i>Molecular Therapy - Nucleic Acids</i> , 2012, 1, e4.	2.3	112
164	The development of bioresorbable composite polymeric implants with high mechanical strength. <i>Nature Materials</i> , 2018, 17, 96-103.	13.3	112
165	Stabilization of tetanus and diphtheria toxoids against moisture-induced aggregation.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1995, 92, 11234-11238.	3.3	110
166	Magnetic modulation of release of macromolecules from polymers.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1981, 78, 1863-1867.	3.3	108
167	Nanoparticles for Immune Cytokine TRAIL-Based Cancer Therapy. <i>ACS Nano</i> , 2018, 12, 912-931.	7.3	107
168	Temporal study of the activity of matrix metalloproteinases and their endogenous inhibitors during wound healing. , 1996, 60, 379-386.		106
169	Glucose-responsive insulin by molecular and physical design. <i>Nature Chemistry</i> , 2017, 9, 937-944.	6.6	106
170	Triggerable tough hydrogels for gastric resident dosage forms. <i>Nature Communications</i> , 2017, 8, 124.	5.8	106
171	Progress in the Tissue Engineering and Stem Cell Industry –Are we there yet?–. <i>Tissue Engineering - Part B: Reviews</i> , 2012, 18, 155-166.	2.5	105
172	Size and temperature effects on poly(lactic-co-glycolic acid) degradation and microreservoir device performance. <i>Biomaterials</i> , 2005, 26, 2137-2145.	5.7	104
173	Synthesis of Polymer–Lipid Nanoparticles for Image-Guided Delivery of Dual Modality Therapy. <i>Bioconjugate Chemistry</i> , 2013, 24, 1429-1434.	1.8	104
174	Multiplexed RNAi therapy against brain tumor-initiating cells via lipopolymeric nanoparticle infusion delays glioblastoma progression. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E6147-E6156.	3.3	102
175	Actuation of untethered pneumatic artificial muscles and soft robots using magnetically induced liquid-to-gas phase transitions. <i>Science Robotics</i> , 2020, 5, .	9.9	101
176	Repeatable and adjustable on-demand sciatic nerve block with phototriggerable liposomes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 15719-15724.	3.3	97
177	Exploiting Electrostatic Interactions in Polymer–Nanoparticle Hydrogels. <i>ACS Macro Letters</i> , 2015, 4, 848-852.	2.3	95
178	Nanoparticles with photoinduced precipitation for the extraction of pollutants from water and soil. <i>Nature Communications</i> , 2015, 6, 7765.	5.8	95
179	Ultrasound-mediated gastrointestinal drug delivery. <i>Science Translational Medicine</i> , 2015, 7, 310ra168.	5.8	95
180	Ionizable Amino–Polyesters Synthesized via Ring Opening Polymerization of Tertiary Amino–Alcohols for Tissue Selective mRNA Delivery. <i>Advanced Materials</i> , 2018, 30, e1801151.	11.1	95

#	ARTICLE	IF	CITATIONS
181	Biocompatible near-infrared quantum dots delivered to the skin by microneedle patches record vaccination. <i>Science Translational Medicine</i> , 2019, 11, .	5.8	95
182	Coated alginate microspheres: Factors influencing the controlled delivery of macromolecules. <i>Journal of Applied Polymer Science</i> , 1991, 43, 2123-2135.	1.3	94
183	Live-cell protein labelling with nanometre precision by cell squeezing. <i>Nature Communications</i> , 2016, 7, 10372.	5.8	94
184	Biofilm-Inspired Encapsulation of Probiotics for the Treatment of Complex Infections. <i>Advanced Materials</i> , 2018, 30, e1803925.	11.1	93
185	Combinatorial Material Mechanics: High-Throughput Polymer Synthesis and Nanomechanical Screening. <i>Advanced Materials</i> , 2005, 17, 2599-2604.	11.1	92
186	Discovery of Novel Materials with Broad Resistance to Bacterial Attachment Using Combinatorial Polymer Microarrays. <i>Advanced Materials</i> , 2013, 25, 2542-2547.	11.1	92
187	Wireless on-demand drug delivery. <i>Nature Electronics</i> , 2021, 4, 464-477.	13.1	91
188	A retrievable implant for the long-term encapsulation and survival of therapeutic xenogeneic cells. <i>Nature Biomedical Engineering</i> , 2020, 4, 814-826.	11.6	90
189	Microfluidic squeezing for intracellular antigen loading in polyclonal B-cells as cellular vaccines. <i>Scientific Reports</i> , 2015, 5, 10276.	1.6	88
190	Endothelial siRNA delivery in nonhuman primates using ionizable low-molecular weight polymeric nanoparticles. <i>Science Advances</i> , 2018, 4, eaar8409.	4.7	81
191	Nonendocytic Delivery of Functional Engineered Nanoparticles into the Cytoplasm of Live Cells Using a Novel, High-Throughput Microfluidic Device. <i>Nano Letters</i> , 2012, 12, 6322-6327.	4.5	80
192	Ionizable Amphiphilic Dendrimer-Based Nanomaterials with Alkyl-Substituted Amines for Tunable siRNA Delivery to the Liver Endothelium In Vivo. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 14397-14401.	7.2	80
193	Single-injection vaccines: Progress, challenges, and opportunities. <i>Journal of Controlled Release</i> , 2015, 219, 596-609.	4.8	80
194	Long-term dopamine neurochemical monitoring in primates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 13260-13265.	3.3	80
195	Nanoparticle-encapsulated siRNAs for gene silencing in the haematopoietic stem-cell niche. <i>Nature Biomedical Engineering</i> , 2020, 4, 1076-1089.	11.6	80
196	Soft Lithographic Patterning of Hyaluronic Acid on Hydrophilic Substrates Using Molding and Printing. <i>Advanced Materials</i> , 2004, 16, 584-588.	11.1	76
197	Photothermally Targeted Thermosensitive Polymer-Masked Nanoparticles. <i>Nano Letters</i> , 2014, 14, 3697-3701.	4.5	75
198	Implantable controlled release systems. , 1983, 21, 35-51.		72

#	ARTICLE	IF	CITATIONS
199	3D-Printed Gastric Resident Electronics. <i>Advanced Materials Technologies</i> , 2019, 4, 1800490.	3.0	72
200	Miniaturized neural system for chronic, local intracerebral drug delivery. <i>Science Translational Medicine</i> , 2018, 10, .	5.8	71
201	Light-degradable hydrogels as dynamic triggers for gastrointestinal applications. <i>Science Advances</i> , 2020, 6, eaay0065.	4.7	71
202	High Throughput Surface Characterisation of a Combinatorial Material Library. <i>Advanced Materials</i> , 2007, 19, 2486-2491.	11.1	70
203	A microneedle platform for buccal macromolecule delivery. <i>Science Advances</i> , 2021, 7, .	4.7	70
204	Delivery of Tissue-Targeted Scalpels: Opportunities and Challenges for <i>In Vivo</i> CRISPR/Cas-Based Genome Editing. <i>ACS Nano</i> , 2020, 14, 9243-9262.	7.3	69
205	Mapping the Interactions among Biomaterials, Adsorbed Proteins, and Human Embryonic Stem Cells. <i>Advanced Materials</i> , 2009, 21, 2781-2786.	11.1	67
206	BBB pathophysiology-independent delivery of siRNA in traumatic brain injury. <i>Science Advances</i> , 2021, 7, .	4.7	67
207	Enzymatic regeneration of ATP. I. Alternative routes. <i>AIChE Journal</i> , 1976, 22, 1079-1090.	1.8	66
208	Quantitative study of molecular transport due to electroporation: uptake of bovine serum albumin by erythrocyte ghosts. <i>Biophysical Journal</i> , 1994, 66, 1522-1530.	0.2	66
209	Computationally guided high-throughput design of self-assembling drug nanoparticles. <i>Nature Nanotechnology</i> , 2021, 16, 725-733.	15.6	64
210	Oral delivery of systemic monoclonal antibodies, peptides and small molecules using gastric auto-injectors. <i>Nature Biotechnology</i> , 2022, 40, 103-109.	9.4	64
211	Bacterial Attachment to Polymeric Materials Correlates with Molecular Flexibility and Hydrophilicity. <i>Advanced Healthcare Materials</i> , 2015, 4, 695-701.	3.9	62
212	Plasma membrane recovery kinetics of a microfluidic intracellular delivery platform. <i>Integrative Biology (United Kingdom)</i> , 2014, 6, 470-475.	0.6	61
213	Biomaterials: Status, challenges, and perspectives. <i>AIChE Journal</i> , 2000, 46, 1286-1289.	1.8	60
214	Ultrasound-enhanced transdermal delivery: recent advances and future challenges. <i>Therapeutic Delivery</i> , 2014, 5, 843-857.	1.2	60
215	Dendrimeric siRNA for Efficient Gene Silencing. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 6740-6744.	7.2	59
216	Perspective: Special delivery for the gut. <i>Nature</i> , 2015, 519, S19-S19.	13.7	59

#	ARTICLE	IF	CITATIONS
217	Injectable Polymer- α -Nanoparticle Hydrogels for Local Immune Cell Recruitment. <i>Biomacromolecules</i> , 2019, 20, 4430-4436.	2.6	58
218	The synthesis of poly(hydroxamic acid) from poly(acrylamide). <i>Journal of Polymer Science Part A</i> , 1988, 26, 2623-2630.	2.5	57
219	Millisecond measurement of transport during and after an electroporation pulse. <i>Biophysical Journal</i> , 1995, 68, 1864-1870.	0.2	56
220	Nanotechnology. <i>JAMA - Journal of the American Medical Association</i> , 2015, 313, 135.	3.8	54
221	Living Biomaterials. <i>Accounts of Chemical Research</i> , 2017, 50, 508-513.	7.6	54
222	Dynamic omnidirectional adhesive microneedle system for oral macromolecular drug delivery. <i>Science Advances</i> , 2022, 8, eabk1792.	4.7	54
223	Cellular-scale probes enable stable chronic subsecond monitoring of dopamine neurochemicals in a rodent model. <i>Communications Biology</i> , 2018, 1, 144.	2.0	52
224	Dry solution to a sticky problem. <i>Nature</i> , 2011, 477, 42-43.	13.7	51
225	Subcellular probes for neurochemical recording from multiple brain sites. <i>Lab on A Chip</i> , 2017, 17, 1104-1115.	3.1	51
226	Temperature-responsive biometamaterials for gastrointestinal applications. <i>Science Translational Medicine</i> , 2019, 11, .	5.8	51
227	A Nanoprimer To Improve the Systemic Delivery of siRNA and mRNA. <i>Nano Letters</i> , 2020, 20, 4264-4269.	4.5	51
228	Modelling and Prediction of Bacterial Attachment to Polymers. <i>Advanced Functional Materials</i> , 2014, 24, 2085-2093.	7.8	48
229	Thermostabilization of inactivated polio vaccine in PLGA-based microspheres for pulsatile release. <i>Journal of Controlled Release</i> , 2016, 233, 101-113.	4.8	48
230	Facts and Figures on Materials Science and Nanotechnology Progress and Investment. <i>ACS Nano</i> , 2021, 15, 15940-15952.	7.3	48
231	Oral mRNA delivery using capsule-mediated gastrointestinal tissue injections. <i>Matter</i> , 2022, 5, 975-987.	5.0	48
232	Ex Vivo Cytosolic Delivery of Functional Macromolecules to Immune Cells. <i>PLoS ONE</i> , 2015, 10, e0118803.	1.1	47
233	Surface tension-assisted additive manufacturing. <i>Nature Communications</i> , 2018, 9, 1184.	5.8	47
234	Nanomaterial Interactions with Human Neutrophils. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 4255-4265.	2.6	47

#	ARTICLE	IF	CITATIONS
235	Single compartment drug delivery. <i>Journal of Controlled Release</i> , 2014, 190, 157-171.	4.8	46
236	Ultrasound-Mediated Delivery of RNA to Colonic Mucosa of Live Mice. <i>Gastroenterology</i> , 2017, 152, 1151-1160.	0.6	46
237	Formulation and Delivery of Proteins and Peptides. <i>ACS Symposium Series</i> , 1994, , 1-19.	0.5	45
238	Wireless Power Transfer to Millimeter-Sized Gastrointestinal Electronics Validated in a Swine Model. <i>Scientific Reports</i> , 2017, 7, 46745.	1.6	45
239	Stabilized single-injection inactivated polio vaccine elicits a strong neutralizing immune response. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E5269-E5278.	3.3	44
240	Rational Design of a Biomimetic Cell Penetrating Peptide Library. <i>ACS Nano</i> , 2013, 7, 8616-8626.	7.3	43
241	Prediction of Broad-Spectrum Pathogen Attachment to Coating Materials for Biomedical Devices. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 139-149.	4.0	43
242	In vitro degradation characteristics of poly(anhydride-imides) containing trimellitylimidoglycine. <i>Journal of Applied Polymer Science</i> , 1997, 63, 1401-1411.	1.3	42
243	Modelling human embryoid body cell adhesion to a combinatorial library of polymer surfaces. <i>Journal of Materials Chemistry</i> , 2012, 22, 20902.	6.7	42
244	Modeling, design, and machine learning-based framework for optimal injectability of microparticle-based drug formulations. <i>Science Advances</i> , 2020, 6, eabb6594.	4.7	42
245	Observation of High-Aspect-Ratio Nanostructures Using Capillary Lithography. <i>Advanced Materials</i> , 2005, 17, 560-564.	11.1	41
246	Oral delivery of biologics using drug-device combinations. <i>Current Opinion in Pharmacology</i> , 2017, 36, 8-13.	1.7	41
247	Immunogenicity of pulsatile-release PLGA microspheres for single-injection vaccination. <i>Vaccine</i> , 2018, 36, 3161-3168.	1.7	41
248	Polydopamine coatings enhance biointegration of a model polymeric implant. <i>Soft Matter</i> , 2011, 7, 8305.	1.2	40
249	Genotype-targeted local therapy of glioma. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E8388-E8394.	3.3	40
250	Clinical Opportunities for Continuous Biosensing and Closed-Loop Therapies. <i>Trends in Chemistry</i> , 2020, 2, 319-340.	4.4	39
251	High throughput screening for biomaterials discovery. <i>Journal of Controlled Release</i> , 2014, 190, 115-126.	4.8	38
252	A gastric resident drug delivery system for prolonged gram-level dosing of tuberculosis treatment. <i>Science Translational Medicine</i> , 2019, 11, .	5.8	38

#	ARTICLE	IF	CITATIONS
253	Photoencapsulation of chondrocytes in poly(ethylene oxide)-based semi-interpenetrating networks. , 2000, 51, 164.		38
254	Î²-â€Aminoacrylate Synthetic Hydrogels: Easily Accessible and Operationally Simple Biomaterials Networks. Angewandte Chemie - International Edition, 2018, 57, 16026-16029.	7.2	37
255	Machine Learning Uncovers Food- and Excipient-Drug Interactions. Cell Reports, 2020, 30, 3710-3716.e4.	2.9	37
256	Bioinspired Nanoparticulate Medical Glues for Minimally Invasive Tissue Repair. Advanced Healthcare Materials, 2015, 4, 2587-2596.	3.9	36
257	First <i>In Vivo</i> Testing of Compounds Targeting Group 3 Medulloblastomas Using an Implantable Microdevice as a New Paradigm for Drug Development. Journal of Biomedical Nanotechnology, 2016, 12, 1297-1302.	0.5	36
258	Towards a defined ECM and small molecule based monolayer culture system for the expansion of mouse and human intestinal stem cells. Biomaterials, 2018, 154, 60-73.	5.7	35
259	Harnessing single-cell genomics to improve the physiological fidelity of organoid-derived cell types. BMC Biology, 2018, 16, 62.	1.7	35
260	Ingestible transiently anchoring electronics for microstimulation and conductive signaling. Science Advances, 2020, 6, eaaz0127.	4.7	35
261	Robotically handled whole-tissue culture system for the screening of oral drug formulations. Nature Biomedical Engineering, 2020, 4, 544-559.	11.6	35
262	Engineered drug delivery devices to address Global Health challenges. Journal of Controlled Release, 2021, 331, 503-514.	4.8	35
263	Nanotechnology for InÂvivo Targeted siRNA Delivery. Advances in Genetics, 2014, 88, 37-69.	0.8	34
264	Improved Speech Intelligibility in Subjects With Stable Sensorineural Hearing Loss Following Intratympanic Dosing of FX-322 in a Phase 1b Study. Otology and Neurotology, 2021, 42, e849-e857.	0.7	34
265	Chemically diverse polymer microarrays and high throughput surface characterisation: a method for discovery of materials for stem cell culture. Biomaterials Science, 2014, 2, 1604-1611.	2.6	33
266	A once-a-month oral contraceptive. Science Translational Medicine, 2019, 11, .	5.8	33
267	Microgel encapsulated nanoparticles for glucose-responsive insulin delivery. Biomaterials, 2021, 267, 120458.	5.7	32
268	Why inhaling salt water changes what we exhale. Journal of Colloid and Interface Science, 2007, 307, 71-78.	5.0	31
269	Cell Squeezing as a Robust, Microfluidic Intracellular Delivery Platform. Journal of Visualized Experiments, 2013, , e50980.	0.2	29
270	A therapeutic convectionâ€enhanced macroencapsulation device for enhancing Î² cell viability and insulin secretion. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	29

#	ARTICLE	IF	CITATIONS
271	Engineered nanoparticles enable deep proteomics studies at scale by leveraging tunable nano-bio interactions. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2106053119.	3.3	29
272	The analysis of the surface chemical structure of biomedical aliphatic polyanhydrides using XPS and ToF-SIMS. Journal of Applied Polymer Science, 1991, 42, 1597-1605.	1.3	28
273	Additive manufacturing in drug delivery: Innovative drug product design and opportunities for industrial application. Advanced Drug Delivery Reviews, 2021, 178, 113990.	6.6	28
274	Physiologic Status Monitoring via the Gastrointestinal Tract. PLoS ONE, 2015, 10, e0141666.	1.1	28
275	A Janus Mucoadhesive and Omniphobic Device for Gastrointestinal Retention. Advanced Healthcare Materials, 2016, 5, 1141-1146.	3.9	27
276	In vitro degradation characteristics of poly(anhydride-imides) containing pyromellitylimidoalanine. Journal of Polymer Science Part A, 1996, 34, 1261-1269.	2.5	26
277	Polymeric mechanical amplifiers of immune cytokine-mediated apoptosis. Nature Communications, 2017, 8, 14179.	5.8	26
278	Enzymatic regeneration of ATP: II. Equilibrium studies with acetate kinase and adenylate kinase. AIChE Journal, 1977, 23, 1-10.	1.8	25
279	Effectiveness of Muscimol-containing Microparticles against Pilocarpine-induced Focal Seizures. Epilepsia, 2002, 43, 1462-1468.	2.6	24
280	A Size-Selective Intracellular Delivery Platform. Small, 2016, 12, 5873-5881.	5.2	24
281	Chemical Tuning of Fibers Drawn from Extensible Hyaluronic Acid Networks. Journal of the American Chemical Society, 2020, 142, 19715-19721.	6.6	24
282	Screening for modulators of the cellular composition of gut epithelia via organoid models of intestinal stem cell differentiation. Nature Biomedical Engineering, 2022, 6, 476-494.	11.6	24
283	Past, Present, and Future Drug Delivery Systems for Antiretrovirals. Journal of Pharmaceutical Sciences, 2016, 105, 3471-3482.	1.6	23
284	Controlling the Growth of Staphylococcus epidermidis by Layer-By-Layer Encapsulation. ACS Applied Materials & Interfaces, 2018, 10, 16250-16259.	4.0	23
285	Dopamine and beta-band oscillations differentially link to striatal value and motor control. Science Advances, 2020, 6, .	4.7	23
286	A rapidly deployable individualized system for augmenting ventilator capacity. Science Translational Medicine, 2020, 12, .	5.8	23
287	Polymers with hydro-responsive topography identified using high throughput AFM of an acrylate microarray. Soft Matter, 2011, 7, 7194.	1.2	22
288	Polypyrrole - A Potential Candidate for Stimulated Nerve Regeneration. Materials Research Society Symposia Proceedings, 1995, 414, 113.	0.1	21

#	ARTICLE	IF	CITATIONS
289	Polymers for extended-release administration. <i>Biomedical Microdevices</i> , 2019, 21, 45.	1.4	21
290	Biohybrid Design Gets Personal: New Materials for Patientâ€™s Specific Therapy. <i>Advanced Materials</i> , 2020, 32, e1901969.	11.1	21
291	Trends in Therapeutic Conjugates: Bench to Clinic. <i>Bioconjugate Chemistry</i> , 2020, 31, 462-473.	1.8	21
292	Delivery of therapeutic carbon monoxide by gas-entrapping materials. <i>Science Translational Medicine</i> , 2022, 14, .	5.8	21
293	Erosion of poly(anhydride-co-imides): A preliminary mechanistic study. <i>Journal of Applied Polymer Science</i> , 1996, 62, 1277-1283.	1.3	20
294	A heat-stable microparticle platform for oral micronutrient delivery. <i>Science Translational Medicine</i> , 2019, 11, .	5.8	20
295	Drug delivery across length scales. <i>Journal of Drug Targeting</i> , 2019, 27, 229-243.	2.1	20
296	Application of Conductive Polymers in Bone Regeneration. <i>Materials Research Society Symposia Proceedings</i> , 1998, 550, 215.	0.1	19
297	Evaporative Cooling Hydrogel Packaging for Storing Biologics Outside of the Cold Chain. <i>Advanced Healthcare Materials</i> , 2018, 7, e1800220.	3.9	19
298	Analysis of the Human Plasma Proteome Using Multiâ€™Nanoparticle Protein Corona for Detection of Alzheimer's Disease. <i>Advanced Healthcare Materials</i> , 2021, 10, e2000948.	3.9	19
299	Development of oil-based gels as versatile drug delivery systems for pediatric applications. <i>Science Advances</i> , 2022, 8, .	4.7	19
300	Focal, remote-controlled, chronic chemical modulation of brain microstructures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 7254-7259.	3.3	18
301	Simultaneous spatiotemporal tracking and oxygen sensing of transient implants in vivo using hot-spot MRI and machine learning. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 4861-4870.	3.3	18
302	Biomaterials and biotechnology: From the discovery of the first angiogenesis inhibitors to the development of controlled drug delivery systems and the foundation of tissue engineering. <i>Journal of Biomedical Materials Research - Part A</i> , 2013, 101A, 2449-2455.	2.1	17
303	Poly(glycoamidoamine) brush nanomaterials for systemic siRNA delivery in vivo. <i>Biomaterials Science</i> , 2017, 5, 38-40.	2.6	17
304	Steerable Microinvasive Probes for Localized Drug Delivery to Deep Tissue. <i>Small</i> , 2019, 15, e1901459.	5.2	17
305	Role of drug delivery technologies in the success of COVID-19 vaccines: a perspective. <i>Drug Delivery and Translational Research</i> , 2022, 12, 2581-2588.	3.0	17
306	Tissue Engineering of Tendon. <i>Materials Research Society Symposia Proceedings</i> , 1995, 394, 83.	0.1	16

#	ARTICLE	IF	CITATIONS
307	Synthesis and in vitro evaluation of a multifunctional and surface-switchable nanoemulsion platform. <i>Chemical Communications</i> , 2013, 49, 9392.	2.2	16
308	Outlooks on Three-Dimensional Printing for Ocular Biomaterials Research. <i>Journal of Ocular Pharmacology and Therapeutics</i> , 2020, 36, 7-17.	0.6	16
309	Experimental and computational understanding of pulsatile release mechanism from biodegradable core-shell microparticles. <i>Science Advances</i> , 2022, 8, .	4.7	16
310	Development of a long-acting direct-acting antiviral system for hepatitis C virus treatment in swine. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 11987-11994.	3.3	15
311	Parallel evolution of polymer chemistry and immunology: Integrating mechanistic biology with materials design. <i>Advanced Drug Delivery Reviews</i> , 2020, 156, 65-79.	6.6	15
312	Magnetic Retrieval of Encapsulated Beta Cell Transplants from Diabetic Mice Using Dual-Function MRI Visible and Retrievable Microcapsules. <i>Advanced Materials</i> , 2020, 32, e1904502.	11.1	15
313	Controlled delivery of gold nanoparticle-coupled miRNA therapeutics via an injectable self-healing hydrogel. <i>Nanoscale</i> , 2021, 13, 20451-20461.	2.8	15
314	Engineered insulin-polycation complexes for glucose-responsive delivery with high insulin loading. <i>Journal of Controlled Release</i> , 2021, 338, 71-79.	4.8	14
315	Investigating the Cellular Specificity in Tumors of a Surface-Converting Nanoparticle by Multimodal Imaging. <i>Bioconjugate Chemistry</i> , 2017, 28, 1413-1421.	1.8	13
316	Tissue Engineering Using Synthetic Biodegradable Polymers. <i>ACS Symposium Series</i> , 1993, , 16-34.	0.5	12
317	Ultra-rapid drug delivery in the oral cavity using ultrasound. <i>Journal of Controlled Release</i> , 2019, 304, 1-6.	4.8	12
318	Polymer Nanocomposite Microactuators for On-Demand Chemical Release via High-Frequency Magnetic Field Excitation. <i>Nano Letters</i> , 2020, 20, 4816-4822.	4.5	12
319	Temporal study of the activity of matrix metalloproteinases and their endogenous inhibitors during wound healing. <i>Journal of Cellular Biochemistry</i> , 1996, 60, 379-386.	1.2	12
320	Regional heparinization via simultaneous separation and reaction in a novel Taylor-Couette flow device. , 1999, 63, 618-624.		11
321	Cytosolic delivery of siRNA by ultra-high affinity dsRNA binding proteins. <i>Nucleic Acids Research</i> , 2017, 45, 7602-7614.	6.5	11
322	Platform for micro-invasive membrane-free biochemical sampling of brain interstitial fluid. <i>Science Advances</i> , 2020, 6, .	4.7	11
323	Microfluidic Squeezing Enables MHC Class I Antigen Presentation by Diverse Immune Cells to Elicit CD8+ T Cell Responses with Antitumor Activity. <i>Journal of Immunology</i> , 2022, 208, 929-940.	0.4	11
324	Engineering precision. <i>Science Translational Medicine</i> , 2015, 7, 289ed6.	5.8	10

#	ARTICLE	IF	CITATIONS
325	Nanofibrillar Patches of Commensal Skin Bacteria. <i>Biomacromolecules</i> , 2019, 20, 102-108.	2.6	10
326	Making the case: developing innovative adherence solutions for the treatment of tuberculosis. <i>BMJ Global Health</i> , 2019, 4, e001323.	2.0	10
327	Î²-â€Aminoacrylate Synthetic Hydrogels: Easily Accessible and Operationally Simple Biomaterials Networks. <i>Angewandte Chemie</i> , 2018, 130, 16258-16261.	1.6	9
328	Nasal Calcium-Rich Salts for Cleaning Airborne Particles from the Airways of Essential Workers, Students, and a Family in Quarantine. <i>Molecular Frontiers Journal</i> , 2020, 04, 36-45.	0.9	9
329	Implantable system for chronotherapy. <i>Science Advances</i> , 2021, 7, eabj4624.	4.7	9
330	Convergence for Translation: Drugâ€Delivery Research in Multidisciplinary Teams. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 4156-4163.	7.2	8
331	Scalable Gastric Resident Systems for Veterinary Application. <i>Scientific Reports</i> , 2018, 8, 11816.	1.6	8
332	Controlling the movement of molecules. <i>Quarterly Reviews of Biophysics</i> , 2019, 52, .	2.4	8
333	A technology evaluation of CVT-301 (Inbrija): an inhalable therapy for treatment of Parkinsonâ€™s disease. <i>Expert Opinion on Drug Delivery</i> , 2021, 18, 1559-1569.	2.4	7
334	Microscale Technologies for Tissue Engineering. , 2008, , 349-369.		6
335	Inverse Pneumatic Artificial Muscles for Application in Lowâ€Cost Ventilators. <i>Advanced Intelligent Systems</i> , 2021, 3, 2000200.	3.3	6
336	Micromolding of Thermoplastic Polymers for Direct Fabrication of Discrete, Multilayered Microparticles. <i>Small Methods</i> , 2022, 6, .	4.6	6
337	Extracorporeal Enzymatic Removal of Low Density Lipoproteins in Rabbits: Efficacy and Safety. <i>International Journal of Artificial Organs</i> , 1993, 16, 218-228.	0.7	5
338	Solventless ordering of colloidal particles through application of patterned elastomeric stamps under pressure. <i>Applied Physics Letters</i> , 2004, 85, 2643-2645.	1.5	5
339	Chemical materials and their regulation of the movement of molecules. <i>Quarterly Reviews of Biophysics</i> , 2015, 48, 424-428.	2.4	5
340	A New Approach for Microfabrication of Printed Circuit Boards with Ultrafine Traces. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 35376-35381.	4.0	5
341	Computationally Guided Intracerebral Drug Delivery via Chronically Implanted Microdevices. <i>Cell Reports</i> , 2020, 31, 107734.	2.9	5
342	Integrating cell Transplantation and Controlled Drug Delivery Technologies to Engineer Liver Tissue. <i>Materials Research Society Symposia Proceedings</i> , 1995, 394, 105.	0.1	4

#	ARTICLE	IF	CITATIONS
343	Controlled Release Microchips. , 0, , 187-215.		4
344	Molecular Rotors for Universal Quantitation of Nanoscale Hydrophobic Interfaces in Microplate Format. Nano Letters, 2018, 18, 618-628.	4.5	3
345	From Molecule to Patient: A Biotech Perspective. Clinical Pharmacology and Therapeutics, 2020, 107, 65-67.	2.3	3
346	Stabilizing Fiber-Based Cell Delivery Devices by Physically Bonding Adjacent Fibers. Materials Research Society Symposia Proceedings, 1993, 331, 47.	0.1	2
347	Integrating Cell Transplantation and Controlled Drug Delivery Technologies to Engineer Liver Tissue. Materials Research Society Symposia Proceedings, 1995, 385, 43.	0.1	2
348	A Novel Versatile Process for the Production of Polymer Foams. Materials Research Society Symposia Proceedings, 1998, 550, 149.	0.1	2
349	Translation durch Konvergenz: Drugâ€­Deliveryâ€­Forschung in multidisziplinÃ¤ren Teams. Angewandte Chemie, 2018, 130, 4226-4234.	1.6	2
350	Can Fish and Cell Phones Teach Us about Our Health?. ACS Sensors, 2019, 4, 2566-2570.	4.0	2
351	Cell Attachment and Protein Adsorption to Polypyrrole thin Films. Materials Research Society Symposia Proceedings, 1992, 293, 179.	0.1	1
352	Electrical Stimulation Of Neurite Outgrowth And Nerve Regeneration. , 0, , .		1
353	Three-dimensional environment promotes in vitro differentiation of cardiac myocytes. , 0, , .		1
354	Simultaneous recording and marking of brain microstructures. Journal of Neural Engineering, 2020, 17, 044001.	1.8	1
355	Investigation of a whole blood fluidized bed Taylorâ€™Couette flow device for enzymatic heparin neutralization. , 1999, 62, 602.		1
356	Regional heparinization via simultaneous separation and reaction in a novel Taylor-Couette flow device. , 1999, 63, 618.		1
357	Photoencapsulation of chondrocytes in poly(ethylene oxide)-based semi-interpenetrating networks. , 2000, 51, 164.		1
358	Arteries engineered from vascular cells. , 0, , .		0
359	Tissue-engineered microvascular networks for gene therapy. , 0, , .		0
360	Magnetite-PLGA Microparticles for Oral Delivery of Insulin. Materials Research Society Symposia Proceedings, 2005, 873, 1.	0.1	0

#	ARTICLE	IF	CITATIONS
361	Inside Front Cover: Combinatorial Modification of Degradable Polymers Enables Transfection of Human Cells Comparable to Adenovirus (Adv. Mater. 19/2007). Advanced Materials, 2007, 19, NA-NA.	11.1	0
362	Medical Adhesives: Bioinspired Nanoparticulate Medical Glues for Minimally Invasive Tissue Repair (Adv. Healthcare Mater. 16/2015). Advanced Healthcare Materials, 2015, 4, 2318-2318.	3.9	0
363	Correction to "Living Biomaterials". Accounts of Chemical Research, 2017, 50, 1493-1493.	7.6	0
364	Microtechnologies and Nanotechnologies in Drug Delivery. , 2021, , .		0
365	Reply to Stohner: On the significance of BMI-age dependence of exhaled aerosol. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2107559118.	3.3	0
366	An antibiotic releasing contact lens. Acta Ophthalmologica, 2009, 87, 0-0.	0.6	0
367	Efficient myogenic commitment of hESCs and iPSC-derived cells on biomimetic materials replicating myoblast topography. FASEB Journal, 2010, 24, 824.5.	0.2	0