

Mark R Prausnitz

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

254
papers

26,796
citations

84
h-index

160
g-index

266
ext. papers

30,221
ext. citations

9
avg, IF

7.53
L-index

#	Paper	IF	Citations
254	Role of drug delivery technologies in the success of COVID-19 vaccines: a perspective.. <i>Drug Delivery and Translational Research</i> , 2022 , 1	6.2	0
253	Evaluation of Spatially Targeted Scleral Stiffening on Neuroprotection in a Rat Model of Glaucoma.. <i>Translational Vision Science and Technology</i> , 2022 , 11, 7	3.3	2
252	Coaxial electrospray of uniform polylactide core-shell microparticles for long-acting contraceptive.. <i>Journal of Controlled Release</i> , 2021 , 341, 634-645	11.7	2
251	Continuous Ketone Monitoring Consensus Report 2021. <i>Journal of Diabetes Science and Technology</i> , 2021 , 19322968211042656	4.1	0
250	An ultra-low-cost electroporator with microneedle electrodes (ePatch) for SARS-CoV-2 vaccination. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	4
249	Dissolvable Microneedle Patches to Enable Increased Access to Vaccines against SARS-CoV-2 and Future Pandemic Outbreaks. <i>Vaccines</i> , 2021 , 9,	5.3	16
248	Administration of pilocarpine by microneedle patch as a novel method for cystic fibrosis sweat testing. <i>Bioengineering and Translational Medicine</i> , 2021 , 6, e10222	14.8	2
247	Skin vaccination with dissolvable microneedle patches incorporating influenza neuraminidase and flagellin protein nanoparticles induces broad immune protection against multiple influenza viruses. <i>ACS Applied Bio Materials</i> , 2021 , 4, 4953-4961	4.1	4
246	Serum Protects Cells and Increases Intracellular Delivery of Molecules by Nanoparticle-Mediated Photoporation. <i>International Journal of Nanomedicine</i> , 2021 , 16, 3707-3724	7.3	0
245	Efficient Drug Delivery into Skin Using a Biphasic Dissolvable Microneedle Patch with Water-Insoluble Backing. <i>Advanced Functional Materials</i> , 2021 , 31, 2103359	15.6	4
244	Immunologic mechanisms of seasonal influenza vaccination administered by microneedle patch from a randomized phase I trial. <i>Npj Vaccines</i> , 2021 , 6, 89	9.5	4
243	Trends of microneedle technology in the scientific literature, patents, clinical trials and internet activity. <i>Biomaterials</i> , 2021 , 267, 120491	15.6	27
242	Drug-Free, Nonsurgical Reduction of Intraocular Pressure for Four Months after Suprachoroidal Injection of Hyaluronic Acid Hydrogel. <i>Advanced Science</i> , 2021 , 8, 2001908	13.6	7
241	Using retinal function to define ischemic exclusion criteria for animal models of glaucoma. <i>Experimental Eye Research</i> , 2021 , 202, 108354	3.7	5
240	Effects of General Anesthesia on Intraocular Pressure in Rabbits. <i>Journal of the American Association for Laboratory Animal Science</i> , 2021 , 60, 91-95	1.3	5
239	Fabrication of microneedle patches with lyophilized influenza vaccine suspended in organic solvent. <i>Drug Delivery and Translational Research</i> , 2021 , 11, 692-701	6.2	7
238	Thermostability of Measles and Rubella Vaccines in a Microneedle Patch.. <i>Advanced Therapeutics</i> , 2021 , 4, 2100095	4.9	

237	Development of a thermostable oxytocin microneedle patch. <i>Journal of Controlled Release</i> , 2021 , 337, 81-89	11.7	1
236	Microneedle patch designs to increase dose administered to human subjects. <i>Journal of Controlled Release</i> , 2021 , 339, 350-360	11.7	2
235	Fabrication of pure-drug microneedles for delivery of montelukast sodium. <i>Drug Delivery and Translational Research</i> , 2021 , 1	6.2	1
234	Immediate detachment of microneedles by interfacial fracture for sustained delivery of a contraceptive hormone in the skin. <i>Journal of Controlled Release</i> , 2021 , 337, 676-685	11.7	4
233	Optimization of intracellular macromolecule delivery by nanoparticle-mediated photoporation. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2021 , 37, 102431	6	1
232	Sensitive sensing of biomarkers in interstitial fluid. <i>Nature Biomedical Engineering</i> , 2021 , 5, 3-5	19	10
231	STAR particles for enhanced topical drug and vaccine delivery. <i>Nature Medicine</i> , 2020 , 26, 341-347	50.5	16
230	A microneedle patch for measles and rubella vaccination: a game changer for achieving elimination. <i>Current Opinion in Virology</i> , 2020 , 41, 68-76	7.5	21
229	Relationship between bio-effects and energy transduction during nanoparticle-mediated photoporation. <i>Journal of Applied Physics</i> , 2020 , 128, 173101	2.5	4
228	Sampling interstitial fluid from human skin using a microneedle patch. <i>Science Translational Medicine</i> , 2020 , 12,	17.5	49
227	Cutaneous vaccination ameliorates Zika virus-induced neuro-ocular pathology via reduction of anti-ganglioside antibodies. <i>Human Vaccines and Immunotherapeutics</i> , 2020 , 16, 2072-2091	4.4	2
226	Acceptability of an inactivated influenza vaccine delivered by microneedle patch: Results from a phase I clinical trial of safety, reactogenicity, and immunogenicity. <i>Vaccine</i> , 2020 , 38, 7175-7181	4.1	21
225	Self-Powered Iontophoretic Transdermal Drug Delivery System Driven and Regulated by Biomechanical Motions. <i>Advanced Functional Materials</i> , 2020 , 30, 1907378	15.6	63
224	cGAMP/Saponin Adjuvant Combination Improves Protective Response to Influenza Vaccination by Microneedle Patch in an Aged Mouse Model. <i>Frontiers in Immunology</i> , 2020 , 11, 583251	8.4	3
223	Sustained scleral stiffening in rats after a single genipin treatment. <i>Journal of the Royal Society Interface</i> , 2019 , 16, 20190427	4.1	12
222	Collagenase injection into the suprachoroidal space of the eye to expand drug delivery coverage and increase posterior drug targeting. <i>Experimental Eye Research</i> , 2019 , 189, 107824	3.7	9
221	Microneedle patch drug delivery in the gut. <i>Nature Medicine</i> , 2019 , 25, 1471-1472	50.5	17
220	Plasmonic Paper Microneedle Patch for On-Patch Detection of Molecules in Dermal Interstitial Fluid. <i>ACS Sensors</i> , 2019 , 4, 1569-1576	9.2	28

219	Co-Delivery of M2e Virus-Like Particles with Influenza Split Vaccine to the Skin Using Microneedles Enhances the Efficacy of Cross Protection. <i>Pharmaceutics</i> , 2019 , 11,	6.4	13
218	Pharmaceutical jewelry: Earring patch for transdermal delivery of contraceptive hormone. <i>Journal of Controlled Release</i> , 2019 , 301, 140-145	11.7	12
217	Targeting drug delivery within the suprachoroidal space. <i>Drug Discovery Today</i> , 2019 , 24, 1654-1659	8.8	12
216	Monitoring drug pharmacokinetics and immunologic biomarkers in dermal interstitial fluid using a microneedle patch. <i>Biomedical Microdevices</i> , 2019 , 21, 14	3.7	22
215	Feasibility of Hepatitis B Vaccination by Microneedle Patch: Cellular and Humoral Immunity Studies in Rhesus Macaques. <i>Journal of Infectious Diseases</i> , 2019 , 220, 1926-1934	7	14
214	Long-acting reversible contraception by effervescent microneedle patch. <i>Science Advances</i> , 2019 , 5, eaaw2145	14.5	83
213	Electrospun Transdermal Patch for Contraceptive Hormone Delivery. <i>Current Drug Delivery</i> , 2019 , 16, 577-583	3.2	15
212	Recruitment and Collection of Dermal Interstitial Fluid Using a Microneedle Patch. <i>Advanced Healthcare Materials</i> , 2019 , 8, e1801262	10.1	41
211	Self-healing encapsulation and controlled release of vaccine antigens from PLGA microparticles delivered by microneedle patches. <i>Bioengineering and Translational Medicine</i> , 2019 , 4, 116-128	14.8	29
210	Rapidly separable microneedle patch for the sustained release of a contraceptive. <i>Nature Biomedical Engineering</i> , 2019 , 3, 220-229	19	177
209	Development of a thermostable microneedle patch for polio vaccination. <i>Drug Delivery and Translational Research</i> , 2019 , 9, 192-203	6.2	33
208	Ocular drug delivery targeted by iontophoresis in the suprachoroidal space using a microneedle. <i>Journal of Controlled Release</i> , 2018 , 277, 14-22	11.7	47
207	Stable incorporation of GM-CSF into dissolvable microneedle patch improves skin vaccination against influenza. <i>Journal of Controlled Release</i> , 2018 , 276, 1-16	11.7	31
206	Mechanisms of sampling interstitial fluid from skin using a microneedle patch. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 4583-4588	11.5	139
205	Human Suction Blister Fluid Composition Determined Using High-Resolution Metabolomics. <i>Analytical Chemistry</i> , 2018 , 90, 3786-3792	7.8	39
204	Inactivated rotavirus vaccine by parenteral administration induces mucosal immunity in mice. <i>Scientific Reports</i> , 2018 , 8, 561	4.9	31
203	A Microneedle Patch for Measles and Rubella Vaccination Is Immunogenic and Protective in Infant Rhesus Macaques. <i>Journal of Infectious Diseases</i> , 2018 , 218, 124-132	7	39
202	Effect of laser fluence, nanoparticle concentration and total energy input per cell on photoporation of cells. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2018 , 14, 1667-1677	6	7

201	The suprachoroidal space as a route of administration to the posterior segment of the eye. <i>Advanced Drug Delivery Reviews</i> , 2018 , 126, 58-66	18.5	33
200	Heterosubtypic influenza protection elicited by double-layered polypeptide nanoparticles in mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E7758-E7767	11.5	59
199	Intradermal immunization by Ebola virus GP subunit vaccines using microneedle patches protects mice against lethal EBOV challenge. <i>Scientific Reports</i> , 2018 , 8, 11193	4.9	18
198	Enhanced Immune Responses Conferring Cross-Protection by Skin Vaccination With a Tri-Component Influenza Vaccine Using a Microneedle Patch. <i>Frontiers in Immunology</i> , 2018 , 9, 1705	8.4	9
197	Hepatitis B vaccination using a dissolvable microneedle patch is immunogenic in mice and rhesus macaques. <i>Bioengineering and Translational Medicine</i> , 2018 , 3, 186-196	14.8	31
196	Individually coated microneedles for co-delivery of multiple compounds with different properties. <i>Drug Delivery and Translational Research</i> , 2018 , 8, 1043-1052	6.2	20
195	Intradermal Vaccination With Adjuvanted Ebola Virus Soluble Glycoprotein Subunit Vaccine by Microneedle Patches Protects Mice Against Lethal Ebola Virus Challenge. <i>Journal of Infectious Diseases</i> , 2018 , 218, S545-S552	7	12
194	Photoporation Using Carbon Nanotubes for Intracellular Delivery of Molecules and Its Relationship to Photoacoustic Pressure. <i>Advanced Healthcare Materials</i> , 2018 , 7, 1701007	10.1	3
193	Vaccination by microneedle patch with inactivated respiratory syncytial virus and monophosphoryl lipid A enhances the protective efficacy and diminishes inflammatory disease after challenge. <i>PLoS ONE</i> , 2018 , 13, e0205071	3.7	10
192	Targeted Drug Delivery in the Suprachoroidal Space by Swollen Hydrogel Pushing	2018, 59, 2069-2079	23
191	Long-term stability of influenza vaccine in a dissolving microneedle patch. <i>Drug Delivery and Translational Research</i> , 2017 , 7, 195-205	6.2	66
190	Challenges and Future Prospects for the Delivery of Biologics: Oral Mucosal, Pulmonary, and Transdermal Routes. <i>AAPS Journal</i> , 2017 , 19, 652-668	3.7	82
189	Tolerability, usability and acceptability of dissolving microneedle patch administration in human subjects. <i>Biomaterials</i> , 2017 , 128, 1-7	15.6	314
188	Role of cytoskeletal mechanics and cell membrane fluidity in the intracellular delivery of molecules mediated by laser-activated carbon nanoparticles. <i>Biotechnology and Bioengineering</i> , 2017 , 114, 2390-2399	4.9	3
187	Energy Transfer Mechanisms during Molecular Delivery to Cells by Laser-Activated Carbon Nanoparticles. <i>Biophysical Journal</i> , 2017 , 112, 1258-1269	2.9	11
186	Engineering Microneedle Patches for Vaccination and Drug Delivery to Skin. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2017 , 8, 177-200	8.9	192
185	Dihydroergotamine mesylate-loaded dissolving microneedle patch made of polyvinylpyrrolidone for management of acute migraine therapy. <i>Journal of Controlled Release</i> , 2017 , 268, 159-165	11.7	33
184	Clearance Kinetics and Clearance Routes of Molecules From the Suprachoroidal Space After Microneedle Injection	2017, 58, 545-554	21

183	Thickness and Closure Kinetics of the Suprachoroidal Space Following Microneedle Injection of Liquid Formulations 2017 , 58, 555-564		18
182	Microneedle patch delivery of influenza vaccine during pregnancy enhances maternal immune responses promoting survival and long-lasting passive immunity to offspring. <i>Scientific Reports</i> , 2017 , 7, 5705	4.9	15
181	A boosting skin vaccination with dissolving microneedle patch encapsulating M2e vaccine broadens the protective efficacy of conventional influenza vaccines. <i>Journal of Controlled Release</i> , 2017 , 261, 1-9	11.7	34
180	The safety, immunogenicity, and acceptability of inactivated influenza vaccine delivered by microneedle patch (TIV-MNP 2015): a randomised, partly blinded, placebo-controlled, phase 1 trial. <i>Lancet, The</i> , 2017 , 390, 649-658	40	211
179	Ebola Vaccination Using a DNA Vaccine Coated on PLGA-PLL/PGA Nanoparticles Administered Using a Microneedle Patch. <i>Advanced Healthcare Materials</i> , 2017 , 6, 1600750	10.1	75
178	Skin immunization by microneedle patch overcomes statin-induced suppression of immune responses to influenza vaccine. <i>Scientific Reports</i> , 2017 , 7, 17855	4.9	12
177	Evaluation of Microneedles in Human Subjects 2017 , 325-340		6
176	Rabies vaccination in dogs using a dissolving microneedle patch. <i>Journal of Controlled Release</i> , 2016 , 239, 19-26	11.7	62
175	Tetanus vaccination with a dissolving microneedle patch confers protective immune responses in pregnancy. <i>Journal of Controlled Release</i> , 2016 , 236, 47-56	11.7	44
174	Parameters affecting intracellular delivery of molecules using laser-activated carbon nanoparticles. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2016 , 12, 1003-1011	6	9
173	Enhanced Stability of Inactivated Influenza Vaccine Encapsulated in Dissolving Microneedle Patches. <i>Pharmaceutical Research</i> , 2016 , 33, 868-78	4.5	49
172	Intracellular delivery of molecules using microfabricated nanoneedle arrays. <i>Biomedical Microdevices</i> , 2016 , 18, 10	3.7	10
171	Microneedle patches for vaccination in developing countries. <i>Journal of Controlled Release</i> , 2016 , 240, 135-141	11.7	124
170	Targeted Drug Delivery Within the Eye Through the Suprachoroidal Space. <i>Journal of Ocular Pharmacology and Therapeutics</i> , 2016 , 32, 640-641	2.6	9
169	Circumferential flow of particles in the suprachoroidal space is impeded by the posterior ciliary arteries. <i>Experimental Eye Research</i> , 2016 , 145, 424-431	3.7	25
168	DNA uptake, intracellular trafficking and gene transfection after ultrasound exposure. <i>Journal of Controlled Release</i> , 2016 , 234, 1-9	11.7	19
167	Distribution of particles, small molecules and polymeric formulation excipients in the suprachoroidal space after microneedle injection. <i>Experimental Eye Research</i> , 2016 , 153, 101-109	3.7	31
166	Delivery of siRNA to ovarian cancer cells using laser-activated carbon nanoparticles. <i>Nanomedicine</i> , 2015 , 10, 1775-84	5.6	16

165	An economic model assessing the value of microneedle patch delivery of the seasonal influenza vaccine. <i>Vaccine</i> , 2015 , 33, 4727-36	4.1	33
164	Improved immunogenicity of individual influenza vaccine components delivered with a novel dissolving microneedle patch stable at room temperature. <i>Drug Delivery and Translational Research</i> , 2015 , 5, 360-71	6.2	70
163	Drug delivery: Puncturing cells en masse. <i>Nature Materials</i> , 2015 , 14, 470-1	27	1
162	A microneedle patch containing measles vaccine is immunogenic in non-human primates. <i>Vaccine</i> , 2015 , 33, 4712-8	4.1	116
161	Enhanced immune responses by skin vaccination with influenza subunit vaccine in young hosts. <i>Vaccine</i> , 2015 , 33, 4675-82	4.1	30
160	Inactivated polio vaccination using a microneedle patch is immunogenic in the rhesus macaque. <i>Vaccine</i> , 2015 , 33, 4683-90	4.1	77
159	Development of a thermostable microneedle patch for influenza vaccination. <i>Journal of Pharmaceutical Sciences</i> , 2015 , 104, 740-9	3.9	75
158	Poloxamer surfactant preserves cell viability during photoacoustic delivery of molecules into cells. <i>Biotechnology and Bioengineering</i> , 2015 , 112, 405-15	4.9	16
157	Lidocaine-ibuprofen ionic liquid for dermal anesthesia. <i>AIChE Journal</i> , 2015 , 61, 2732-2738	3.6	39
156	Effect of Osmotic Pressure on the Stability of Whole Inactivated Influenza Vaccine for Coating on Microneedles. <i>PLoS ONE</i> , 2015 , 10, e0134431	3.7	22
155	Microneedle patch delivery to the skin of virus-like particles containing heterologous M2e extracellular domains of influenza virus induces broad heterosubtypic cross-protection. <i>Journal of Controlled Release</i> , 2015 , 210, 208-16	11.7	41
154	Formulation to target delivery to the ciliary body and choroid via the suprachoroidal space of the eye using microneedles. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2015 , 95, 398-406	5.7	44
153	Inkjet printing of transdermal microneedles for the delivery of anticancer agents. <i>International Journal of Pharmaceutics</i> , 2015 , 494, 593-602	6.5	98
152	Vaccination with human papillomavirus pseudovirus-encapsidated plasmids targeted to skin using microneedles. <i>PLoS ONE</i> , 2015 , 10, e0120797	3.7	37
151	A protective role of murine langerin+ cells in immune responses to cutaneous vaccination with microneedle patches. <i>Scientific Reports</i> , 2014 , 4, 6094	4.9	18
150	Microneedle delivery of an M2e-TLR5 ligand fusion protein to skin confers broadly cross-protective influenza immunity. <i>Journal of Controlled Release</i> , 2014 , 178, 1-7	11.7	64
149	Microneedle patches: usability and acceptability for self-vaccination against influenza. <i>Vaccine</i> , 2014 , 32, 1856-62	4.1	179
148	Reliability and accuracy of intradermal injection by Mantoux technique, hypodermic needle adapter, and hollow microneedle in pigs. <i>Drug Delivery and Translational Research</i> , 2014 , 4, 126-30	6.2	17

147	Collection of analytes from microneedle patches. <i>Analytical Chemistry</i> , 2014 , 86, 10520-3	7.8	81
146	Targeted delivery of antiglaucoma drugs to the supraciliary space using microneedles 2014 , 55, 7387-97		51
145	Particle-stabilized emulsion droplets for gravity-mediated targeting in the posterior segment of the eye. <i>Advanced Healthcare Materials</i> , 2014 , 3, 1272-82	10.1	33
144	Intrastromal delivery of bevacizumab using microneedles to treat corneal neovascularization 2014 , 55, 7376-86		46
143	Efficient intracellular delivery of molecules with high cell viability using nanosecond-pulsed laser-activated carbon nanoparticles. <i>ACS Nano</i> , 2014 , 8, 2889-99	16.7	39
142	Ocular delivery of macromolecules. <i>Journal of Controlled Release</i> , 2014 , 190, 172-81	11.7	148
141	Transdermal delivery of molecules is limited by full epidermis, not just stratum corneum. <i>Pharmaceutical Research</i> , 2013 , 30, 1099-109	4.5	118
140	Measles vaccination using a microneedle patch. <i>Vaccine</i> , 2013 , 31, 3403-9	4.1	96
139	Dose sparing and enhanced immunogenicity of inactivated rotavirus vaccine administered by skin vaccination using a microneedle patch. <i>Vaccine</i> , 2013 , 31, 3396-402	4.1	63
138	Faster pharmacokinetics and increased patient acceptance of intradermal insulin delivery using a single hollow microneedle in children and adolescents with type 1 diabetes. <i>Pediatric Diabetes</i> , 2013 , 14, 459-65	3.6	87
137	Cross-protection by co-immunization with influenza hemagglutinin DNA and inactivated virus vaccine using coated microneedles. <i>Journal of Controlled Release</i> , 2013 , 172, 579-88	11.7	50
136	Stability of whole inactivated influenza virus vaccine during coating onto metal microneedles. <i>Journal of Controlled Release</i> , 2013 , 166, 159-71	11.7	60
135	Skin pretreatment with microneedles prior to pilocarpine iontophoresis increases sweat production. <i>Clinical Physiology and Functional Imaging</i> , 2013 , 33, 436-40	2.4	12
134	Hollow microneedles for intradermal injection fabricated by sacrificial micromolding and selective electrodeposition. <i>Biomedical Microdevices</i> , 2013 , 15, 203-10	3.7	50
133	Long-term protective immunity from an influenza virus-like particle vaccine administered with a microneedle patch. <i>Vaccine Journal</i> , 2013 , 20, 1433-9		51
132	Delivery of salmon calcitonin using a microneedle patch. <i>International Journal of Pharmaceutics</i> , 2012 , 423, 257-63	6.5	50
131	Stability of influenza vaccine coated onto microneedles. <i>Biomaterials</i> , 2012 , 33, 3756-69	15.6	94
130	Can ultrasound enable efficient intracellular uptake of molecules? A retrospective literature review and analysis. <i>Ultrasound in Medicine and Biology</i> , 2012 , 38, 876-88	3.5	57

129	Polymeric tube-shaped devices with controlled geometry for programmed drug delivery. <i>Macromolecular Research</i> , 2012 , 20, 960-967	1.9	5
128	Increased immunogenicity of avian influenza DNA vaccine delivered to the skin using a microneedle patch. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2012 , 81, 239-47	5.7	64
127	DNA vaccination in the skin using microneedles improves protection against influenza. <i>Molecular Therapy</i> , 2012 , 20, 1472-80	11.7	63
126	Microneedles for drug and vaccine delivery. <i>Advanced Drug Delivery Reviews</i> , 2012 , 64, 1547-68	18.5	993
125	Effect of adjuvants on responses to skin immunization by microneedles coated with influenza subunit vaccine. <i>PLoS ONE</i> , 2012 , 7, e41501	3.7	72
124	Intracellular protein delivery and gene transfection by electroporation using a microneedle electrode array. <i>Small</i> , 2012 , 8, 1081-91	11	48
123	Local response to microneedle-based influenza immunization in the skin. <i>MBio</i> , 2012 , 3, e00012-12	7.8	61
122	Delivery of subunit influenza vaccine to skin with microneedles improves immunogenicity and long-lived protection. <i>Scientific Reports</i> , 2012 , 2, 357	4.9	84
121	Targeted administration into the suprachoroidal space using a microneedle for drug delivery to the posterior segment of the eye 2012 , 53, 4433-41		153
120	Gene transfection enhanced by ultrasound exposure combined with drug treatment guided by gene chip analysis. <i>International Journal of Hyperthermia</i> , 2012 , 28, 349-61	3.7	5
119	Improving patient acceptance of insulin therapy by improving needle design. <i>Journal of Diabetes Science and Technology</i> , 2012 , 6, 336-8	4.1	10
118	Rapid local anesthesia in humans using minimally invasive microneedles. <i>Clinical Journal of Pain</i> , 2012 , 28, 129-35	3.5	52
117	Bacillus Calmette-Guérin vaccination using a microneedle patch. <i>Vaccine</i> , 2011 , 29, 2626-36	4.1	75
116	Visualization of plasmid delivery to keratinocytes in mouse and human epidermis. <i>Scientific Reports</i> , 2011 , 1, 158	4.9	20
115	Separable arrowhead microneedles. <i>Journal of Controlled Release</i> , 2011 , 149, 242-9	11.7	156
114	Microsecond thermal ablation of skin for transdermal drug delivery. <i>Journal of Controlled Release</i> , 2011 , 154, 58-68	11.7	85
113	Local transdermal delivery of phenylephrine to the anal sphincter muscle using microneedles. <i>Journal of Controlled Release</i> , 2011 , 154, 138-47	11.7	30
112	Kinetics of skin resealing after insertion of microneedles in human subjects. <i>Journal of Controlled Release</i> , 2011 , 154, 148-55	11.7	188

111	Infusion pressure and pain during microneedle injection into skin of human subjects. <i>Biomaterials</i> , 2011 , 32, 6823-31	15.6	80
110	Recovery of skin barrier after stratum corneum removal by microdermabrasion. <i>AAPS PharmSciTech</i> , 2011 , 12, 1393-400	3.9	20
109	Stability kinetics of influenza vaccine coated onto microneedles during drying and storage. <i>Pharmaceutical Research</i> , 2011 , 28, 135-44	4.5	82
108	Suprachoroidal drug delivery to the back of the eye using hollow microneedles. <i>Pharmaceutical Research</i> , 2011 , 28, 166-76	4.5	203
107	The rule of five for non-oral routes of drug delivery: ophthalmic, inhalation and transdermal. <i>Pharmaceutical Research</i> , 2011 , 28, 943-8	4.5	111
106	Transdermal insulin delivery using microdermabrasion. <i>Pharmaceutical Research</i> , 2011 , 28, 2110-8	4.5	34
105	Optimization of microdermabrasion for controlled removal of stratum corneum. <i>International Journal of Pharmaceutics</i> , 2011 , 407, 95-104	6.5	25
104	Enabling skin vaccination using new delivery technologies. <i>Drug Delivery and Translational Research</i> , 2011 , 1, 7-12	6.2	60
103	Dissolving microneedle patch for transdermal delivery of human growth hormone. <i>Small</i> , 2011 , 7, 531-9	11	202
102	Rapid pharmacokinetics of intradermal insulin administered using microneedles in type 1 diabetes subjects. <i>Diabetes Technology and Therapeutics</i> , 2011 , 13, 451-6	8.1	72
101	Serological memory and long-term protection to novel H1N1 influenza virus after skin vaccination. <i>Journal of Infectious Diseases</i> , 2011 , 204, 582-91	7	47
100	Targeted Drug Delivery to the Eye Enabled by Microneedles. <i>AAPS Advances in the Pharmaceutical Sciences Series</i> , 2011 , 331-360	0.5	2
99	Dissolving polymer microneedle patches for influenza vaccination. <i>Nature Medicine</i> , 2010 , 16, 915-20	50.5	613
98	Delivery of molecules into cells using carbon nanoparticles activated by femtosecond laser pulses. <i>Nature Nanotechnology</i> , 2010 , 5, 607-11	28.7	124
97	Analysis of Mechanical Failure of Polymer Microneedles by Axial Force. <i>Journal of the Korean Physical Society</i> , 2010 , 56, 1223-1227	0.6	55
96	Enhanced memory responses to seasonal H1N1 influenza vaccination of the skin with the use of vaccine-coated microneedles. <i>Journal of Infectious Diseases</i> , 2010 , 201, 190-8	7	96
95	Microneedle delivery of H5N1 influenza virus-like particles to the skin induces long-lasting B- and T-cell responses in mice. <i>Vaccine Journal</i> , 2010 , 17, 1381-9		63
94	Intradermal vaccination with influenza virus-like particles by using microneedles induces protection superior to that with intramuscular immunization. <i>Journal of Virology</i> , 2010 , 84, 7760-9	6.6	108

93	A microneedle roller for transdermal drug delivery. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2010 , 76, 282-9	5.7	118
92	Influenza virus-like particles coated onto microneedles can elicit stimulatory effects on Langerhans cells in human skin. <i>Vaccine</i> , 2010 , 28, 6104-13	4.1	57
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