Patrick S Doyle

List of Publications by Year in Descending Order

245 papers	14,908 citations	64 h-index	114 g-index
254 ext. papers	16,594 ext. citations	7.4 avg, IF	6.99 L-index

#	Paper	IF	Citations
245	Quantitative and Multiplex Detection of Extracellular Vesicle-Derived MicroRNA via Rolling Circle Amplification within Encoded Hydrogel Microparticles.. *Advanced Healthcare Materials*, **2022**, e2102332	10.1	0
244	Control of Drug-Excipient Particle Attributes with Droplet Microfluidic-based Extractive Solidification Enables Improved Powder Rheology.. *Pharmaceutical Research*, **2022**, 39, 411	4.5	0
243	Hydrogel Microparticle-Templated Anti-Solvent Crystallization of Small-Molecule Drugs.. *Advanced Healthcare Materials*, **2021**, e2102252	10.1	0
242	Phase Transition of Catenated DNA Networks in Poly(ethylene glycol) Solutions.. *ACS Macro Letters*, **2021**, 10, 1429-1435	6.6	2
241	DNA Knot Malleability in Single-Digit Nanopores. *Nano Letters*, **2021**, 21, 3772-3779	11.5	4
240	Evaluation of 3D-printed molds for fabrication of non-planar microchannels. *Biomicrofluidics*, **2021**, 15, 024111	3.2	2
239	Continuous Embedded Droplet Printing in Yield-Stress Fluids for Pharmaceutical Drug Particle Synthesis. *Advanced Materials Technologies*, **2021**, 6, 2001245	6.8	3
238	Particle Synthesis: Continuous Embedded Droplet Printing in Yield-Stress Fluids for Pharmaceutical Drug Particle Synthesis (Adv. Mater. Technol. 4/2021). *Advanced Materials Technologies*, **2021**, 6, 2170020	6.8	
237	Design and Use of a Thermogelling Methylcellulose Nanoemulsion to Formulate Nanocrystalline Oral Dosage Forms. *Advanced Materials*, **2021**, 33, e2008618	24	4
236	Equilibrium Conformation of Catenated DNA Networks in Slitlike Confinement.. *ACS Macro Letters*, **2021**, 10, 880-885	6.6	4
235	High-Resolution Patterning of Hydrogel Sensing Motifs within Fibrous Substrates for Sensitive and Multiplexed Detection of Biomarkers. *ACS Sensors*, **2021**, 6, 203-211	9.2	3
234	Hydrogel Microsphere Encapsulation Enhances the Flow Properties of Monoclonal Antibody Crystal Formulations. *Advanced Therapeutics*, **2021**, 4, 2000216	4.9	2
233	Patterning of interconnected human brain spheroids. *Lab on A Chip*, **2021**, 21, 3532-3540	7.2	1
232	Spatially resolved and multiplexed MicroRNA quantification from tissue using nanoliter well arrays. *Microsystems and Nanoengineering*, **2020**, 6, 51	7.7	8
231	Design of a Multiplexed Analyte Biosensor using Digital Barcoded Particles and Impedance Spectroscopy. *Scientific Reports*, **2020**, 10, 6109	4.9	8
230	Deformation Response of Catenated DNA Networks in a Planar Elongational Field. *ACS Macro Letters*, **2020**, 9, 944-949	6.6	11
229	A platform for multiplexed colorimetric microRNA detection using shape-encoded hydrogel particles. *Analyst, The*, **2020**, 145, 5134-5140	5	9

228	Hydrogel-Based Colorimetric Assay for Multiplexed MicroRNA Detection in a Microfluidic Device. *Analytical Chemistry*, **2020**, 92, 5750-5755	7.8	24
227	Tuning Material Properties of Nanoemulsion Gels by Sequentially Screening Electrostatic Repulsions and Then Thermally Inducing Droplet Bridging. *Langmuir*, **2020**, 36, 3346-3355	4	7
226	Weak acids as an alternative anti-microbial therapy. *Biofilm*, **2020**, 2, 100019	5.9	19
225	Ionic Effects on the Equilibrium Conformation of Catenated DNA Networks. *Macromolecules*, **2020**, 53, 8502-8508	5.5	3
224	Thermally and pH-responsive gelation of nanoemulsions stabilized by weak acid surfactants. *Journal of Colloid and Interface Science*, **2020**, 563, 229-240	9.3	9
223	High Loading Capacity Nanoencapsulation and Release of Hydrophobic Drug Nanocrystals from Microgel Particles. *Chemistry of Materials*, **2020**, 32, 498-509	9.6	5
222	Equilibrium structure and deformation response of 2D kinetoplast sheets. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 121-127	11.5	26
221	Topological Simplification of Complex Knots Untied in Elongational Flows. *Macromolecules*, **2020**, 53, 7389-7398	5.5	2
220	Nanoemulsion-Loaded Capsules for Controlled Delivery of Lipophilic Active Ingredients. *Advanced Science*, **2020**, 7, 2001677	13.6	7
219	Embedded droplet printing in yield-stress fluids. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 5671-5679	11.5	23
218	An experimental investigation of attraction between knots in a stretched DNA molecule. *Europhysics Letters*, **2020**, 129, 68001	1.6	3
217	Effects of Side Chains on Polymer Knots. *Macromolecules*, **2019**, 52, 6792-6800	5.5	4
216	Complex DNA knots detected with a nanopore sensor. *Nature Communications*, **2019**, 10, 4473	17.4	44
215	Thermoresponsive nanoemulsion-based gel synthesized through a low-energy process. *Nature Communications*, **2019**, 10, 2749	17.4	42
214	Self-assembly of droplets in three-dimensional microchannels. *Soft Matter*, **2019**, 15, 4244-4254	3.6	9
213	Noninvasive monitoring of single-cell mechanics by acoustic scattering. *Nature Methods*, **2019**, 16, 263-269	22.6	43
212	Colloidal Gelation through Thermally Triggered Surfactant Displacement. *Langmuir*, **2019**, 35, 9464-9473	4	12
211	Conformational State Hopping of Knots in Tensioned Polymer Chains. *ACS Macro Letters*, **2019**, 8, 905-910	6.6	4

210	Long-Lived Self-Entanglements in Ring Polymers. *Physical Review Letters*, **2019**, 123, 048002	7.4	15
209	Self-entanglement of a tumbled circular chain. *Physical Review Research*, **2019**, 1,	3.9	5
208	Calcium-mediated Protein Folding and Stabilization of Salmonella Biofilm-associated Protein A. *Journal of Molecular Biology*, **2019**, 431, 433-443	6.5	11
207	Photopolymerized Micelle-Laden Hydrogels Can Simultaneously Form and Encapsulate Nanocrystals to Improve Drug Substance Solubility and Expedite Drug Product Design. *Small*, **2019**, 15, e1803372	11	11
206	Knots modify the coil-stretch transition in linear DNA polymers. *Soft Matter*, **2018**, 14, 1689-1698	3.6	19
205	Low Energy Nanoemulsions as Templates for the Formulation of Hydrophobic Drugs. *Advanced Therapeutics*, **2018**, 1, 1700020	4.9	17
204	Motion of Knots in DNA Stretched by Elongational Fields. *Physical Review Letters*, **2018**, 120, 188003	7.4	41
203	Microfluidic platform for selective microparticle parking and paired particle isolation in droplet arrays. *Biomicrofluidics*, **2018**, 12, 024102	3.2	5
202	Theoretical Insight into the Biodegradation of Solitary Oil Microdroplets Moving through a Water Column. *Bioengineering*, **2018**, 5,	5.3	4
201	Quantitative and multiplex microRNA assays from unprocessed cells in isolated nanoliter well arrays. *Lab on A Chip*, **2018**, 18, 2410-2424	7.2	8
200	Design of Mucoadhesive PLGA Microparticles for Ocular Drug Delivery.. *ACS Applied Bio Materials*, **2018**, 1, 561-571	4.1	22
199	Universal Knot Spectra for Confined Polymers. *Macromolecules*, **2018**, 51, 6327-6333	5.5	20
198	Oil Recovery from Micropatterned Triangular Troughs during a Surfactant Flood. *Langmuir*, **2018**, 34, 10644-10649	4	5
197	Nonfouling, Encoded Hydrogel Microparticles for Multiplex MicroRNA Profiling Directly from Formalin-Fixed, Paraffin-Embedded Tissue. *Analytical Chemistry*, **2018**, 90, 10279-10285	7.8	13
196	Thermal processing of thermogelling nanoemulsions as a route to tune material properties. *Soft Matter*, **2018**, 14, 5604-5614	3.6	5
195	Multifunctional Hierarchically-Assembled Hydrogel Particles with Pollen Grains via Pickering Suspension Polymerization. *Langmuir*, **2018**, 34, 14643-14651	4	9
194	Untying of Complex Knots on Stretched Polymers in Elongational Fields. *Macromolecules*, **2018**, 51, 9562-9571	5.5	12
193	Rapid prototyping of fluoropolymer microchannels by xurography for improved solvent resistance. *Biomicrofluidics*, **2018**, 12, 064105	3.2	9

192	Designable 3D Microshapes Fabricated at the Intersection of Structured Flow and Optical Fields. *Small*, **2018**, 14, e1803585	11	15
191	Design of Hydrogel Particle Morphology for Rapid Bioassays. *Analytical Chemistry*, **2018**, 90, 13572-13579	7.8	11
190	Large-scale patterning of living colloids for dynamic studies of neutrophil-microbe interactions. *Lab on A Chip*, **2018**, 18, 1514-1520	7.2	5
189	3D printing of self-assembling thermoresponsive nanoemulsions into hierarchical mesostructured hydrogels. *Soft Matter*, **2017**, 13, 921-929	3.6	30
188	Small but Perfectly Formed? Successes, Challenges, and Opportunities for Microfluidics in the Chemical and Biological Sciences. *CheM*, **2017**, 2, 201-223	16.2	206
187	Effect of internal architecture on microgel deformation in microfluidic constrictions. *Soft Matter*, **2017**, 13, 1920-1928	3.6	16
186	Swimming bacteria promote dispersal of non-motile staphylococcal species. *ISME Journal*, **2017**, 11, 1933-1937	11	24
185	Dynamics of DNA Knots during Chain Relaxation. *Macromolecules*, **2017**, 50, 4074-4082	5.5	29
184	Steady-State and Transient Behavior of Knotted Chains in Extensional Fields. *ACS Macro Letters*, **2017**, 6, 1285-1289	6.6	16
183	Creating Isolated Liquid Compartments Using Photopatterned Obstacles in Microfluidics. *Physical Review Applied*, **2017**, 7,	4.3	4
182	Nanoconfinement greatly speeds up the nucleation and the annealing in single-DNA collapse. *Soft Matter*, **2017**, 13, 6363-6371	3.6	3
181	Multiple particle tracking study of thermally-gelling nanoemulsions. *Soft Matter*, **2017**, 13, 6606-6619	3.6	14
180	CO-Reactive Ionic Liquid Surfactants for the Control of Colloidal Morphology. *Langmuir*, **2017**, 33, 7633-7641	4	2
179	Microparticle parking and isolation for highly sensitive microRNA detection. *Lab on A Chip*, **2017**, 17, 3120-3128	7.2	9
178	Mechanistic action of weak acid drugs on biofilms. *Scientific Reports*, **2017**, 7, 4783	4.9	28
177	A General Route for Nanoemulsion Synthesis Using Low-Energy Methods at Constant Temperature. *Langmuir*, **2017**, 33, 7118-7123	4	41
176	Porous microwells for geometry-selective, large-scale microparticle arrays. *Nature Materials*, **2017**, 16, 139-146	27	47
175	Trapping a Knot into Tight Conformations by Intra-Chain Repulsions. *Polymers*, **2017**, 9,	4.5	7

174	Controlled liquid entrapment over patterned sidewalls in confined geometries. *Physical Review Fluids*, **2017**, 2,	2.8	4
173	Kinetics of the Change in Droplet Size during Nanoemulsion Formation. *Langmuir*, **2016**, 32, 11551-11559	4	20
172	Flexible Octopus-Shaped Hydrogel Particles for Specific Cell Capture. *Small*, **2016**, 12, 2001-2008	11	22
171	Mechanical properties of the superficial biofilm layer determine the architecture of biofilms. *Soft Matter*, **2016**, 12, 5718-26	3.6	38
170	Jamming of Knots along a Tensioned Chain. *ACS Macro Letters*, **2016**, 5, 123-127	6.6	17
169	Encoded Hydrogel Microparticles for Sensitive and Multiplex microRNA Detection Directly from Raw Cell Lysates. *Analytical Chemistry*, **2016**, 88, 3075-81	7.8	46
168	Nanoemulsions: formation, properties and applications. *Soft Matter*, **2016**, 12, 2826-41	3.6	658
167	The polymer physics of single DNA confined in nanochannels. *Advances in Colloid and Interface Science*, **2016**, 232, 80-100	14.3	75
166	Controlling and predicting droplet size of nanoemulsions: scaling relations with experimental validation. *Soft Matter*, **2016**, 12, 1452-8	3.6	73
165	Core-Shell Composite Hydrogels for Controlled Nanocrystal Formation and Release of Hydrophobic Active Pharmaceutical Ingredients. *Advanced Healthcare Materials*, **2016**, 5, 1960-8	10.1	33
164	Site-Selective In Situ Grown Calcium Carbonate Micromodels with Tunable Geometry, Porosity, and Wettability. *Advanced Functional Materials*, **2016**, 26, 4896-4905	15.6	27
163	Translocation dynamics of knotted polymers under a constant or periodic external field. *Soft Matter*, **2016**, 12, 5041-9	3.6	20
162	Effects of Intrachain Interactions on the Knot Size of a Polymer. *Macromolecules*, **2016**, 49, 7581-7587	5.5	16
161	Origin of metastable knots in single flexible chains. *Physical Review Letters*, **2015**, 114, 037801	7.4	35
160	Material properties of biofilms-a review of methods for understanding permeability and mechanics. *Reports on Progress in Physics*, **2015**, 78, 036601	14.4	108
159	Sensitive and Multiplexed On-chip microRNA Profiling in Oil-Isolated Hydrogel Chambers. *Angewandte Chemie*, **2015**, 127, 2507-2511	3.6	5
158	Hydrogel microparticles for biosensing. *European Polymer Journal*, **2015**, 72, 386-412	5.2	125
157	Photopatterned oil-reservoir micromodels with tailored wetting properties. *Lab on A Chip*, **2015**, 15, 3047-55	7.2	38

156	Metastable Knots in Confined Semiflexible Chains. *Macromolecules*, **2015**, 48, 2812-2818	5.5	31
155	Synthesis of Nonspherical Microcapsules through Controlled Polyelectrolyte Coating of Hydrogel Templates. *Langmuir*, **2015**, 31, 9228-35	4	11
154	Stretching self-entangled DNA molecules in elongational fields. *Soft Matter*, **2015**, 11, 3105-14	3.6	45
153	Synthesis of Cell-Adhesive Anisotropic Multifunctional Particles by Stop Flow Lithography and Streptavidin-Biotin Interactions. *Langmuir*, **2015**, 31, 13165-71	4	25
152	Celebrating Soft Matter's 10th Anniversary: Sequential phase transitions in thermoresponsive nanoemulsions. *Soft Matter*, **2015**, 11, 8426-31	3.6	13
151	High-Throughput Contact Flow Lithography. *Advanced Science*, **2015**, 2, 1500149	13.6	38
150	Revisiting the Anomalous Bending Elasticity of Sharply Bent DNA. *Biophysical Journal*, **2015**, 109, 2338-51	4.9	22
149	Sensitive and multiplexed on-chip microRNA profiling in oil-isolated hydrogel chambers. *Angewandte Chemie - International Edition*, **2015**, 54, 2477-81	16.4	29
148	Coil-globule transition of a single semiflexible chain in slitlike confinement. *Scientific Reports*, **2015**, 5, 18438	4.9	12
147	Universal process-inert encoding architecture for polymer microparticles. *Nature Materials*, **2014**, 13, 524-9	27	287
146	Stop flow lithography in perfluoropolyether (PFPE) microfluidic channels. *Lab on A Chip*, **2014**, 14, 4680-7	7.2	23
145	Enhanced electrohydrodynamic collapse of DNA due to dilute polymers. *Biomicrofluidics*, **2014**, 8, 034103	3.2	4
144	Interconversion between three overstretched DNA structures. *Journal of the American Chemical Society*, **2014**, 136, 16073-80	16.4	34
143	Composite Hydrogels Laden with Crystalline Active Pharmaceutical Ingredients of Controlled Size and Loading. *Chemistry of Materials*, **2014**, 26, 6213-6220	9.6	32
142	Synthesis of colloidal microgels using oxygen-controlled flow lithography. *Soft Matter*, **2014**, 10, 7595-603	3.6	15
141	Inertio-elastic focusing of bioparticles in microchannels at high throughput. *Nature Communications*, **2014**, 5, 4120	17.4	148
140	Homogeneous percolation versus arrested phase separation in attractively-driven nanoemulsion colloidal gels. *Soft Matter*, **2014**, 10, 3122-33	3.6	56
139	Metastable Tight Knots in Semiflexible Chains. *Macromolecules*, **2014**, 47, 6135-6140	5.5	45

138	Biocompatible Alginate Microgel Particles as Heteronucleants and Encapsulating Vehicles for Hydrophilic and Hydrophobic Drugs. *Crystal Growth and Design*, **2014**, 14, 2073-2082	3.5	57
137	Extended de Gennes Regime of DNA Confined in a Nanochannel. *Macromolecules*, **2014**, 47, 2445-2450	5.5	96
136	Self-organizing microfluidic crystals. *Soft Matter*, **2014**, 10, 5177-91	3.6	21
135	Effect of YOYO-1 on the mechanical properties of DNA. *Soft Matter*, **2014**, 10, 9721-8	3.6	76
134	Single particle tracking reveals spatial and dynamic organization of the biofilm matrix. *New Journal of Physics*, **2014**, 16, 085014	2.9	33
133	Dynamic remodeling of microbial biofilms by functionally distinct exopolysaccharides. *MBio*, **2014**, 5, e01536-14	7.8	106
132	Untying Knotted DNA with Elongational Flows. *ACS Macro Letters*, **2014**, 3, 963-967	6.6	31
131	Monodisperse polymeric ionic liquid microgel beads with multiple chemically switchable functionalities. *Langmuir*, **2013**, 29, 9535-43	4	55
130	Comparisons of a Polymer in Confinement versus Applied Force. *Macromolecules*, **2013**, 46, 6336-6344	5.5	43
129	Engineering particle trajectories in microfluidic flows using particle shape. *Nature Communications*, **2013**, 4, 2666	17.4	60
128	Oil-isolated hydrogel microstructures for sensitive bioassays on-chip. *Analytical Chemistry*, **2013**, 85, 12098-107	7.8	38
127	Is DNA a Good Model Polymer?. *Macromolecules*, **2013**, 46,	5.5	84
126	Synthesis of biomimetic oxygen-carrying compartmentalized microparticles using flow lithography. *Lab on A Chip*, **2013**, 13, 4765-74	7.2	24
125	Gelation of the genome by topoisomerase II targeting anticancer agents. *Soft Matter*, **2013**, 9, 1656-1663	3.6	8
124	Effect of H-NS on the elongation and compaction of single DNA molecules in a nanospace. *Soft Matter*, **2013**, 9, 9593-601	3.6	30
123	A nanofluidic device for single molecule studies with in situ control of environmental solution conditions. *Lab on A Chip*, **2013**, 13, 2821-6	7.2	27
122	Revisiting blob theory for DNA diffusivity in slitlike confinement. *Physical Review Letters*, **2013**, 110, 168105	7.4	42
121	Time-dependent bending rigidity and helical twist of DNA by rearrangement of bound HU protein. *Nucleic Acids Research*, **2013**, 41, 8280-8	20.1	21

120	Amplified stretch of bottlebrush-coated DNA in nanofluidic channels. *Nucleic Acids Research*, **2013**, 41, e189	20.1	23
119	Intrachain dynamics of large dsDNA confined to slitlike channels. *Physical Review Letters*, **2013**, 110, 068101	7.4	18
118	Revealing the competition between peeled ssDNA, melting bubbles, and S-DNA during DNA overstretching by single-molecule calorimetry. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 3865-70	11.5	109
117	Using magnetically responsive tea waste to remove lead in waters under environmentally relevant conditions. *PLoS ONE*, **2013**, 8, e66648	3.7	16
116	Cervical mucus properties stratify risk for preterm birth. *PLoS ONE*, **2013**, 8, e69528	3.7	40
115	Multiplexed detection of mRNA using porosity-tuned hydrogel microparticles. *Analytical Chemistry*, **2012**, 84, 9370-8	7.8	96
114	Synthesis of nonspherical superparamagnetic particles: in situ coprecipitation of magnetic nanoparticles in microgels prepared by stop-flow lithography. *Journal of the American Chemical Society*, **2012**, 134, 7337-43	16.4	96
113	Arrested chain growth during magnetic directed particle assembly in yield stress matrix fluids. *Langmuir*, **2012**, 28, 3683-9	4	14
112	Synthesis of magnetic hydrogel microparticles for bioassays and tweezer manipulation in microwells. *Microfluidics and Nanofluidics*, **2012**, 13, 665-674	2.8	21
111	A systematic study of DNA conformation in slitlike confinement. *Soft Matter*, **2012**, 8, 2972	3.6	75
110	Collective dynamics of small clusters of particles flowing in a quasi-two-dimensional microchannel. *Soft Matter*, **2012**, 8, 10676	3.6	14
109	Nucleation under Soft Confinement: Role of Polymer–Solute Interactions. *Crystal Growth and Design*, **2012**, 12, 508-517	3.5	48
108	Conformation Model of Back-Folding and Looping of a Single DNA Molecule Confined Inside a Nanochannel. *ACS Macro Letters*, **2012**, 1, 1046-1050	6.6	46
107	Effect of Nanoslit Confinement on the Knotting Probability of Circular DNA. *ACS Macro Letters*, **2012**, 1, 732-736	6.6	48
106	Gel-induced selective crystallization of polymorphs. *Journal of the American Chemical Society*, **2012**, 134, 673-84	16.4	113
105	Nanouidic compaction of DNA by like-charged protein. *Journal of Physical Chemistry B*, **2012**, 116, 3031-6	3.4	24
104	Sequence-dependent sliding kinetics of p53. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 16552-7	11.5	76
103	Non-polydimethylsiloxane devices for oxygen-free flow lithography. *Nature Communications*, **2012**, 3, 805	17.4	44

102	Mesoporous organohydrogels from thermogelling photocrosslinkable nanoemulsions. *Nature Materials*, **2012**, 11, 344-52	27	116
101	Nanoemulsion composite microgels for orthogonal encapsulation and release. *Advanced Materials*, **2012**, 24, 3838-44, 3895	24	44
100	Microgels: Nanoemulsion Composite Microgels for Orthogonal Encapsulation and Release (Adv. Mater. 28/2012). *Advanced Materials*, **2012**, 24, 3895-3895	24	
99	Magnetorheology in an aging, yield stress matrix fluid. *Rheologica Acta*, **2012**, 51, 579-593	2.3	31
98	Scattering and nonlinear bound states of hydrodynamically coupled particles in a narrow channel. *Physical Review E*, **2012**, 85, 016325	2.4	13
97	Two distinct overstretched DNA structures revealed by single-molecule thermodynamics measurements. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 8103-8	11.5	101
96	Size dependence of microprobe dynamics during gelation of a discotic colloidal clay. *Journal of Rheology*, **2011**, 55, 273-299	4.1	64
95	Controlled nucleation from solution using polymer microgels. *Journal of the American Chemical Society*, **2011**, 133, 3756-9	16.4	78
94	Bar-coded hydrogel microparticles for protein detection: synthesis, assay and scanning. *Nature Protocols*, **2011**, 6, 1761-74	18.8	116
93	Effect of nanochannel geometry on DNA structure in the presence of macromolecular crowding agent. *Nano Letters*, **2011**, 11, 5047-53	11.5	57
92	Ultrasensitive multiplexed microRNA quantification on encoded gel microparticles using rolling circle amplification. *Analytical Chemistry*, **2011**, 83, 7179-85	7.8	97
91	Rapid microRNA Profiling on Encoded Gel Microparticles. *Angewandte Chemie*, **2011**, 123, 2337-2341	3.6	15
90	Rapid microRNA profiling on encoded gel microparticles. *Angewandte Chemie - International Edition* , **2011**, 50, 2289-93	16.4	125
89	Genotyping by alkaline dehybridization using graphically encoded particles. *Chemistry - A European Journal*, **2011**, 17, 2867-73	4.8	5
88	Compressed-air flow control system. *Lab on A Chip*, **2011**, 11, 743-7	7.2	56
87	Multiplexed protein quantification with barcoded hydrogel microparticles. *Analytical Chemistry*, **2011**, 83, 193-9	7.8	117
86	Nonlinear microrheology of an aging, yield stress fluid using magnetic tweezers. *Soft Matter*, **2011**, 7, 9933	3.6	49
85	Branched networks by directed assembly of shape anisotropic magnetic particles. *Langmuir*, **2011**, 27, 13428-35	4	8

84	Using stop-flow lithography to produce opaque microparticles: synthesis and modeling. *Langmuir*, **2011**, 27, 13813-9	4	20
83	Simulating the Relaxation of Stretched DNA in Slitlike Confinement. *Macromolecules*, **2011**, 44, 383-392	5.5	12
82	Aptamer-functionalized microgel particles for protein detection. *Analytical Chemistry*, **2011**, 83, 9138-45	7.8	68
81	Hydrogel microparticles from lithographic processes: novel materials for fundamental and applied colloid science. *Current Opinion in Colloid and Interface Science*, **2011**, 16, 106-117	7.6	110
80	Compression and self-entanglement of single DNA molecules under uniform electric field. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 16153-8	11.5	108
79	DNA Collisions with a Large, Conducting Post. *Macromolecules*, **2010**, 43, 5424-5432	5.5	3
78	Microfluidic fabrication of hydrogel microparticles containing functionalized viral nanotemplates. *Langmuir*, **2010**, 26, 13436-41	4	55
77	Revisiting the Conformation and Dynamics of DNA in Slitlike Confinement. *Macromolecules*, **2010**, 43, 7368-7377	5.5	104
76	Coil-stretch Transition of DNA Molecules in Slit-like Confinement. *Macromolecules*, **2010**, 43, 3081-3089	5.5	37
75	Magnetic barcoded hydrogel microparticles for multiplexed detection. *Langmuir*, **2010**, 26, 8008-14	4	76
74	Multifunctional superparamagnetic Janus particles. *Langmuir*, **2010**, 26, 4281-7	4	222
73	Squishy non-spherical hydrogel microparticles. *Macromolecular Rapid Communications*, **2010**, 31, 128-34	4.8	80
72	A review of fatty acid profiles and antioxidant content in grass-fed and grain-fed beef. *Nutrition Journal*, **2010**, 9, 10	4.3	407
71	Hydrodynamic focusing lithography. *Angewandte Chemie - International Edition*, **2010**, 49, 87-90	16.4	66
70	Preface to special topic: papers from the 82nd american chemical society colloid and surface science symposium, raleigh, north Carolina, 2008. *Biomicrofluidics*, **2009**, 3, 12701	3.2	1
69	Temporal response of an initially deflected PDMS channel. *New Journal of Physics*, **2009**, 11, 115001	2.9	10
68	The Synthesis and Assembly of Polymeric Microparticles Using Microfluidics. *Advanced Materials*, **2009**, 21, 4071-4086	24	505
67	Tuning curvature in flow lithography: a new class of concave/convex particles. *Langmuir*, **2009**, 25, 5986-92	4	19

66	Optimization of encoded hydrogel particles for nucleic acid quantification. *Analytical Chemistry*, **2009**, 81, 4873-81	7.8	87
65	Stop-flow lithography for the production of shape-evolving degradable microgel particles. *Journal of the American Chemical Society*, **2009**, 131, 4499-504	16.4	112
64	Simulation of electrophoretic stretching of DNA in a microcontraction using an obstacle array for conformational preconditioning. *Biomicrofluidics*, **2009**, 3, 12803	3.2	17
63	A conformal nano-adhesive via initiated chemical vapor deposition for microfluidic devices. *Lab on A Chip*, **2009**, 9, 411-6	7.2	84
62	Soft microflow sensors. *Lab on A Chip*, **2009**, 9, 1213-8	7.2	38
61	Lock release lithography for 3D and composite microparticles. *Lab on A Chip*, **2009**, 9, 863-6	7.2	70
60	Directed self-assembly of field-responsive fluids in confined geometries. *Soft Matter*, **2009**, 5, 1192-1197	3.6	3
59	High-throughput flow alignment of barcoded hydrogel microparticles. *Lab on A Chip*, **2009**, 9, 3100-9	7.2	43
58	Ionic effects on the equilibrium dynamics of DNA confined in nanoslits. *Nano Letters*, **2008**, 8, 1683-8	11.5	101
57	Stop-flow lithography to generate cell-laden microgel particles. *Lab on A Chip*, **2008**, 8, 1056-61	7.2	235
56	Electrophoretic Stretching of DNA Molecules in Cross-Slot Nanoslit Channels. *Macromolecules*, **2008**, 41, 9914-9918	5.5	31
55	Modeling of Oxygen-Inhibited Free Radical Photopolymerization in a PDMS Microfluidic Device. *Macromolecules*, **2008**, 41, 8547-8556	5.5	218
54	Microfluidic-based synthesis of non-spherical magnetic hydrogel microparticles. *Lab on A Chip*, **2008** , 8, 1640-7	7.2	184
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