

Patrick S Doyle

List of Publications by Citations

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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.

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	Continuous-flow lithography for high-throughput microparticle synthesis. <i>Nature Materials</i> , 2006 , 5, 365-9	2.7	806
244	Nanoemulsions: formation, properties and applications. <i>Soft Matter</i> , 2016 , 12, 2826-41	3.6	658
243	Multifunctional encoded particles for high-throughput biomolecule analysis. <i>Science</i> , 2007 , 315, 1393-6	33.3	613
242	The Synthesis and Assembly of Polymeric Microparticles Using Microfluidics. <i>Advanced Materials</i> , 2009 , 21, 4071-4086	24	505
241	Controlled synthesis of nonspherical microparticles using microfluidics. <i>Langmuir</i> , 2005 , 21, 2113-6	4	414
240	Self-assembled magnetic matrices for DNA separation chips. <i>Science</i> , 2002 , 295, 2237	33.3	409
239	A review of fatty acid profiles and antioxidant content in grass-fed and grain-fed beef. <i>Nutrition Journal</i> , 2010 , 9, 10	4.3	407
238	Static and dynamic errors in particle tracking microrheology. <i>Biophysical Journal</i> , 2005 , 88, 623-38	2.9	383
237	Stop-flow lithography in a microfluidic device. <i>Lab on A Chip</i> , 2007 , 7, 818-28	7.2	316
236	Universal process-inert encoding architecture for polymer microparticles. <i>Nature Materials</i> , 2014 , 13, 524-9	27	287
235	Stop-flow lithography to generate cell-laden microgel particles. <i>Lab on A Chip</i> , 2008 , 8, 1056-61	7.2	235
234	Multifunctional superparamagnetic Janus particles. <i>Langmuir</i> , 2010 , 26, 4281-7	4	222
233	Modeling of Oxygen-Inhibited Free Radical Photopolymerization in a PDMS Microfluidic Device. <i>Macromolecules</i> , 2008 , 41, 8547-8556	5.5	218
232	Small but Perfectly Formed? Successes, Challenges, and Opportunities for Microfluidics in the Chemical and Biological Sciences. <i>Chem</i> , 2017 , 2, 201-223	16.2	206
231	Microfluidic-based synthesis of non-spherical magnetic hydrogel microparticles. <i>Lab on A Chip</i> , 2008 , 8, 1640-7	7.2	184
230	Dynamics of a tethered polymer in shear flow. <i>Physical Review Letters</i> , 2000 , 84, 4769-72	7.4	179
229	Dynamic simulation of freely draining flexible polymers in steady linear flows. <i>Journal of Fluid Mechanics</i> , 1997 , 334, 251-291	3.7	165

228	Permeation-driven flow in poly(dimethylsiloxane) microfluidic devices. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 10813-8	11.5	165
227	Double-Stranded DNA Diffusion in Slitlike Nanochannels. <i>Macromolecules</i> , 2006 , 39, 6273-6281	5.5	159
226	Synthesis and self-assembly of amphiphilic polymeric microparticles. <i>Langmuir</i> , 2007 , 23, 4669-74	4	155
225	Inertio-elastic focusing of bioparticles in microchannels at high throughput. <i>Nature Communications</i> , 2014 , 5, 4120	17.4	148
224	Hydrogel microparticles for biosensing. <i>European Polymer Journal</i> , 2015 , 72, 386-412	5.2	125
223	Rapid microRNA profiling on encoded gel microparticles. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 2289-93	16.4	125
222	Relaxation of dilute polymer solutions following extensional flow. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 1998 , 76, 79-110	2.7	123
221	Multiplexed protein quantification with barcoded hydrogel microparticles. <i>Analytical Chemistry</i> , 2011 , 83, 193-9	7.8	117
220	Mesoporous organohydrogels from thermogelling photocrosslinkable nanoemulsions. <i>Nature Materials</i> , 2012 , 11, 344-52	27	116
219	Bar-coded hydrogel microparticles for protein detection: synthesis, assay and scanning. <i>Nature Protocols</i> , 2011 , 6, 1761-74	18.8	116
218	On the coarse-graining of polymers into bead-spring chains. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2004 , 122, 3-31	2.7	114
217	Gel-induced selective crystallization of polymorphs. <i>Journal of the American Chemical Society</i> , 2012 , 134, 673-84	16.4	113
216	Stop-flow lithography for the production of shape-evolving degradable microgel particles. <i>Journal of the American Chemical Society</i> , 2009 , 131, 4499-504	16.4	112
215	Hydrogel microparticles from lithographic processes: novel materials for fundamental and applied colloid science. <i>Current Opinion in Colloid and Interface Science</i> , 2011 , 16, 106-117	7.6	110
214	Revealing the competition between peeled ssDNA, melting bubbles, and S-DNA during DNA overstretching by single-molecule calorimetry. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 3865-70	11.5	109
213	Material properties of biofilms-a review of methods for understanding permeability and mechanics. <i>Reports on Progress in Physics</i> , 2015 , 78, 036601	14.4	108
212	Compression and self-entanglement of single DNA molecules under uniform electric field. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 16153-8	11.5	108
211	Dynamic remodeling of microbial biofilms by functionally distinct exopolysaccharides. <i>MBio</i> , 2014 , 5, e01536-14	7.8	106

210	Revisiting the Conformation and Dynamics of DNA in Slitlike Confinement. <i>Macromolecules</i> , 2010 , 43, 7368-7377	5.5	104
209	Two distinct overstretched DNA structures revealed by single-molecule thermodynamics measurements. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 8103-8	11.5	101
208	Ionic effects on the equilibrium dynamics of DNA confined in nanoslits. <i>Nano Letters</i> , 2008 , 8, 1683-8	11.5	101
207	Ultrasensitive multiplexed microRNA quantification on encoded gel microparticles using rolling circle amplification. <i>Analytical Chemistry</i> , 2011 , 83, 7179-85	7.8	97
206	Extended de Gennes Regime of DNA Confined in a Nanochannel. <i>Macromolecules</i> , 2014 , 47, 2445-2450	5.5	96
205	Multiplexed detection of mRNA using porosity-tuned hydrogel microparticles. <i>Analytical Chemistry</i> , 2012 , 84, 9370-8	7.8	96
204	Synthesis of nonspherical superparamagnetic particles: in situ coprecipitation of magnetic nanoparticles in microgels prepared by stop-flow lithography. <i>Journal of the American Chemical Society</i> , 2012 , 134, 7337-43	16.4	96
203	A route to three-dimensional structures in a microfluidic device: stop-flow interference lithography. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 9027-31	16.4	90
202	Stretching tethered DNA chains in shear flow. <i>Europhysics Letters</i> , 2000 , 52, 511-517	1.6	90
201	Optimization of encoded hydrogel particles for nucleic acid quantification. <i>Analytical Chemistry</i> , 2009 , 81, 4873-81	7.8	87
200	Is DNA a Good Model Polymer?. <i>Macromolecules</i> , 2013 , 46,	5.5	84
199	A conformal nano-adhesive via initiated chemical vapor deposition for microfluidic devices. <i>Lab on A Chip</i> , 2009 , 9, 411-6	7.2	84
198	Patterning nanodomains with orthogonal functionalities: solventless synthesis of self-sorting surfaces. <i>Journal of the American Chemical Society</i> , 2008 , 130, 14424-5	16.4	84
197	Squishy non-spherical hydrogel microparticles. <i>Macromolecular Rapid Communications</i> , 2010 , 31, 128-34	4.8	80
196	Controlled nucleation from solution using polymer microgels. <i>Journal of the American Chemical Society</i> , 2011 , 133, 3756-9	16.4	78
195	Stop-Flow Lithography of Colloidal, Glass, and Silicon Microcomponents. <i>Advanced Materials</i> , 2008 , 20, 4734-4739	24	78
194	Methods to electrophoretically stretch DNA: microcontractions, gels, and hybrid gel-microcontraction devices. <i>Lab on A Chip</i> , 2006 , 6, 516-25	7.2	77
193	Effect of YOYO-1 on the mechanical properties of DNA. <i>Soft Matter</i> , 2014 , 10, 9721-8	3.6	76

192	Sequence-dependent sliding kinetics of p53. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 16552-7	11.5	76
191	Magnetic barcoded hydrogel microparticles for multiplexed detection. <i>Langmuir</i> , 2010 , 26, 8008-14	4	76
190	The polymer physics of single DNA confined in nanochannels. <i>Advances in Colloid and Interface Science</i> , 2016 , 232, 80-100	14.3	75
189	A systematic study of DNA conformation in slitlike confinement. <i>Soft Matter</i> , 2012 , 8, 2972	3.6	75
188	An Experimental Study of DNA Rotational Relaxation Time in Nanoslits. <i>Macromolecules</i> , 2007 , 40, 5196-5205	5.5	75
187	Rheology of Polymer Brushes: A Brownian Dynamics Study. <i>Macromolecules</i> , 1998 , 31, 5474-5486	5.5	75
186	Controlling and predicting droplet size of nanoemulsions: scaling relations with experimental validation. <i>Soft Matter</i> , 2016 , 12, 1452-8	3.6	73
185	Fast kinetics of chromatin assembly revealed by single-molecule videomicroscopy and scanning force microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000 , 97, 14251-6	11.5	73
184	Lock release lithography for 3D and composite microparticles. <i>Lab on A Chip</i> , 2009 , 9, 863-6	7.2	70
183	Aptamer-functionalized microgel particles for protein detection. <i>Analytical Chemistry</i> , 2011 , 83, 9138-45	7.8	68
182	Hydrodynamic focusing lithography. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 87-90	16.4	66
181	Size dependence of microprobe dynamics during gelation of a discotic colloidal clay. <i>Journal of Rheology</i> , 2011 , 55, 273-299	4.1	64
180	Dynamic simulation of freely-draining, flexible bead-rod chains: Start-up of extensional and shear flow1Dedicated to the memory of Professor Gianni Astarita1. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 1998 , 76, 43-78	2.7	64
179	Electrophoretic collision of a DNA molecule with an insulating post. <i>Physical Review Letters</i> , 2004 , 93, 058102	7.4	63
178	Relaxation of stretched DNA in slitlike confinement. <i>Physical Review Letters</i> , 2007 , 99, 238102	7.4	61
177	Engineering particle trajectories in microfluidic flows using particle shape. <i>Nature Communications</i> , 2013 , 4, 2666	17.4	60
176	Biocompatible Alginate Microgel Particles as Heteronucleants and Encapsulating Vehicles for Hydrophilic and Hydrophobic Drugs. <i>Crystal Growth and Design</i> , 2014 , 14, 2073-2082	3.5	57
175	Effect of nanochannel geometry on DNA structure in the presence of macromolecular crowding agent. <i>Nano Letters</i> , 2011 , 11, 5047-53	11.5	57

174	Homogeneous percolation versus arrested phase separation in attractively-driven nanoemulsion colloidal gels. <i>Soft Matter</i> , 2014 , 10, 3122-33	3.6	56
173	Compressed-air flow control system. <i>Lab on A Chip</i> , 2011 , 11, 743-7	7.2	56
172	Monodisperse polymeric ionic liquid microgel beads with multiple chemically switchable functionalities. <i>Langmuir</i> , 2013 , 29, 9535-43	4	55
171	Microfluidic fabrication of hydrogel microparticles containing functionalized viral nanotemplates. <i>Langmuir</i> , 2010 , 26, 13436-41	4	55
170	Rheology of Wet Polymer Brushes via Brownian Dynamics Simulation: Steady vs Oscillatory Shear. <i>Physical Review Letters</i> , 1997 , 78, 1182-1185	7.4	55
169	DNA Deformation in Electric Fields: DNA Driven Past a Cylindrical Obstruction. <i>Macromolecules</i> , 2005 , 38, 2410-2418	5.5	51
168	Magnetically and biologically active bead-patterned hydrogels. <i>Langmuir</i> , 2006 , 22, 5122-8	4	51
167	Nonlinear microrheology of an aging, yield stress fluid using magnetic tweezers. <i>Soft Matter</i> , 2011 , 7, 9933	3.6	49
166	Nucleation under Soft Confinement: Role of Polymer-Solute Interactions. <i>Crystal Growth and Design</i> , 2012 , 12, 508-517	3.5	48
165	Effect of Nanoslit Confinement on the Knotting Probability of Circular DNA. <i>ACS Macro Letters</i> , 2012 , 1, 732-736	6.6	48
164	Porous microwells for geometry-selective, large-scale microparticle arrays. <i>Nature Materials</i> , 2017 , 16, 139-146	27	47
163	Structure and dynamics of repulsive magnetorheological colloids in two-dimensional channels. <i>Physical Review E</i> , 2005 , 72, 011405	2.4	47
162	Encoded Hydrogel Microparticles for Sensitive and Multiplex microRNA Detection Directly from Raw Cell Lysates. <i>Analytical Chemistry</i> , 2016 , 88, 3075-81	7.8	46
161	Conformation Model of Back-Folding and Looping of a Single DNA Molecule Confined Inside a Nanochannel. <i>ACS Macro Letters</i> , 2012 , 1, 1046-1050	6.6	46
160	Stretching self-entangled DNA molecules in elongational fields. <i>Soft Matter</i> , 2015 , 11, 3105-14	3.6	45
159	Metastable Tight Knots in Semiflexible Chains. <i>Macromolecules</i> , 2014 , 47, 6135-6140	5.5	45
158	Complex DNA knots detected with a nanopore sensor. <i>Nature Communications</i> , 2019 , 10, 4473	17.4	44
157	Non-polydimethylsiloxane devices for oxygen-free flow lithography. <i>Nature Communications</i> , 2012 , 3, 805	17.4	44

156	Nanoemulsion composite microgels for orthogonal encapsulation and release. <i>Advanced Materials</i> , 2012 , 24, 3838-44, 3895	24	44
155	Noninvasive monitoring of single-cell mechanics by acoustic scattering. <i>Nature Methods</i> , 2019 , 16, 263-269	6.6	43
154	Comparisons of a Polymer in Confinement versus Applied Force. <i>Macromolecules</i> , 2013 , 46, 6336-6344	5.5	43
153	High-throughput flow alignment of barcoded hydrogel microparticles. <i>Lab on A Chip</i> , 2009 , 9, 3100-9	7.2	43
152	Structural analysis of a dipole system in two-dimensional channels. <i>Physical Review E</i> , 2004 , 70, 061408	2.4	43
151	Thermoresponsive nanoemulsion-based gel synthesized through a low-energy process. <i>Nature Communications</i> , 2019 , 10, 2749	17.4	42
150	Revisiting blob theory for DNA diffusivity in slitlike confinement. <i>Physical Review Letters</i> , 2013 , 110, 168105	10.5	42
149	Collision of a DNA Polymer with a Small Obstacle. <i>Macromolecules</i> , 2006 , 39, 7734-7745	5.5	42
148	Motion of Knots in DNA Stretched by Elongational Fields. <i>Physical Review Letters</i> , 2018 , 120, 188003	7.4	41
147	A General Route for Nanoemulsion Synthesis Using Low-Energy Methods at Constant Temperature. <i>Langmuir</i> , 2017 , 33, 7118-7123	4	41
146	Statistical and sampling issues when using multiple particle tracking. <i>Physical Review E</i> , 2007 , 76, 021501	2.4	41
145	Role of a finite exposure time on measuring an elastic modulus using microrheology. <i>Physical Review E</i> , 2005 , 71, 041106	2.4	41
144	Cervical mucus properties stratify risk for preterm birth. <i>PLoS ONE</i> , 2013 , 8, e69528	3.7	40
143	Photopatterned oil-reservoir micromodels with tailored wetting properties. <i>Lab on A Chip</i> , 2015 , 15, 3047-55	7.2	38
142	Mechanical properties of the superficial biofilm layer determine the architecture of biofilms. <i>Soft Matter</i> , 2016 , 12, 5718-26	3.6	38
141	Oil-isolated hydrogel microstructures for sensitive bioassays on-chip. <i>Analytical Chemistry</i> , 2013 , 85, 12099-107	3.8	38
140	High-Throughput Contact Flow Lithography. <i>Advanced Science</i> , 2015 , 2, 1500149	13.6	38
139	Soft microflow sensors. <i>Lab on A Chip</i> , 2009 , 9, 1213-8	7.2	38

138	Coil-stretch Transition of DNA Molecules in Slit-like Confinement. <i>Macromolecules</i> , 2010 , 43, 3081-3089	5.5	37
137	Transition from two-dimensional to three-dimensional behavior in the self-assembly of magnetorheological fluids confined in thin slits. <i>Physical Review E</i> , 2007 , 75, 061406	2.4	36
136	Origin of metastable knots in single flexible chains. <i>Physical Review Letters</i> , 2015 , 114, 037801	7.4	35
135	Hierarchical assembly of viral nanotemplates with encoded microparticles via nucleic acid hybridization. <i>Langmuir</i> , 2008 , 24, 12483-8	4	35
134	Interconversion between three overstretched DNA structures. <i>Journal of the American Chemical Society</i> , 2014 , 136, 16073-80	16.4	34
133	Single particle tracking reveals spatial and dynamic organization of the biofilm matrix. <i>New Journal of Physics</i> , 2014 , 16, 085014	2.9	33
132	Core-Shell Composite Hydrogels for Controlled Nanocrystal Formation and Release of Hydrophobic Active Pharmaceutical Ingredients. <i>Advanced Healthcare Materials</i> , 2016 , 5, 1960-8	10.1	33
131	Composite Hydrogels Laden with Crystalline Active Pharmaceutical Ingredients of Controlled Size and Loading. <i>Chemistry of Materials</i> , 2014 , 26, 6213-6220	9.6	32
130	Experimental study of structure and dynamics in a monolayer of paramagnetic colloids confined by parallel hard walls. <i>Langmuir</i> , 2006 , 22, 3601-5	4	32
129	Metastable Knots in Confined Semiflexible Chains. <i>Macromolecules</i> , 2015 , 48, 2812-2818	5.5	31
128	Untying Knotted DNA with Elongational Flows. <i>ACS Macro Letters</i> , 2014 , 3, 963-967	6.6	31
127	Magnetorheology in an aging, yield stress matrix fluid. <i>Rheologica Acta</i> , 2012 , 51, 579-593	2.3	31
126	Electrophoretic Stretching of DNA Molecules in Cross-Slot Nanoslit Channels. <i>Macromolecules</i> , 2008 , 41, 9914-9918	5.5	31
125	Design and numerical simulation of a DNA electrophoretic stretching device. <i>Lab on A Chip</i> , 2007 , 7, 213-25	7.5	31
124	Electrostatically tuned rate of peptide self-assembly resolved by multiple particle tracking. <i>Soft Matter</i> , 2007 , 3, 1194-1202	3.6	31
123	A Brownian dynamics-finite element method for simulating DNA electrophoresis in nonhomogeneous electric fields. <i>Journal of Chemical Physics</i> , 2006 , 125, 074906	3.9	31
122	3D printing of self-assembling thermoresponsive nanoemulsions into hierarchical mesostructured hydrogels. <i>Soft Matter</i> , 2017 , 13, 921-929	3.6	30
121	Effect of H-NS on the elongation and compaction of single DNA molecules in a nanospace. <i>Soft Matter</i> , 2013 , 9, 9593-601	3.6	30

120	Dynamics of DNA Knots during Chain Relaxation. <i>Macromolecules</i> , 2017 , 50, 4074-4082	5.5	29
119	Sensitive and multiplexed on-chip microRNA profiling in oil-isolated hydrogel chambers. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 2477-81	16.4	29
118	Alternative spring force law for bead-spring chain models of the worm-like chain. <i>Journal of Rheology</i> , 2006 , 50, 513-529	4.1	29
117	Mechanistic action of weak acid drugs on biofilms. <i>Scientific Reports</i> , 2017 , 7, 4783	4.9	28
116	A nanofluidic device for single molecule studies with in situ control of environmental solution conditions. <i>Lab on A Chip</i> , 2013 , 13, 2821-6	7.2	27
115	Site-Selective In Situ Grown Calcium Carbonate Micromodels with Tunable Geometry, Porosity, and Wettability. <i>Advanced Functional Materials</i> , 2016 , 26, 4896-4905	15.6	27
114	Equilibrium structure and deformation response of 2D kinetoplast sheets. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 121-127	11.5	26
113	Synthesis of Cell-Adhesive Anisotropic Multifunctional Particles by Stop Flow Lithography and Streptavidin-Biotin Interactions. <i>Langmuir</i> , 2015 , 31, 13165-71	4	25
112	Stochastic Modeling and Simulation of DNA Electrophoretic Separation in a Microfluidic Obstacle Array. <i>Macromolecules</i> , 2007 , 40, 8794-8806	5.5	25
111	Swimming bacteria promote dispersal of non-motile staphylococcal species. <i>ISME Journal</i> , 2017 , 11, 1933-1937	11.9	24
110	Hydrogel-Based Colorimetric Assay for Multiplexed MicroRNA Detection in a Microfluidic Device. <i>Analytical Chemistry</i> , 2020 , 92, 5750-5755	7.8	24
109	Synthesis of biomimetic oxygen-carrying compartmentalized microparticles using flow lithography. <i>Lab on A Chip</i> , 2013 , 13, 4765-74	7.2	24
108	Nanofluidic compaction of DNA by like-charged protein. <i>Journal of Physical Chemistry B</i> , 2012 , 116, 3031-6	3.4	24
107	Development of bead-spring polymer models using the constant extension ensemble. <i>Journal of Rheology</i> , 2005 , 49, 963-987	4.1	24
106	Stop flow lithography in perfluoropolyether (PFPE) microfluidic channels. <i>Lab on A Chip</i> , 2014 , 14, 4680-7	7.2	23
105	Amplified stretch of bottlebrush-coated DNA in nanofluidic channels. <i>Nucleic Acids Research</i> , 2013 , 41, e189	20.1	23
104	Electrophoretic stretching of DNA molecules using microscale T junctions. <i>Applied Physics Letters</i> , 2007 , 90, 224103	3.4	23
103	Embedded droplet printing in yield-stress fluids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 5671-5679	11.5	23

102	Flexible Octopus-Shaped Hydrogel Particles for Specific Cell Capture. <i>Small</i> , 2016 , 12, 2001-2008	11	22
101	Design of Mucoadhesive PLGA Microparticles for Ocular Drug Delivery.. <i>ACS Applied Bio Materials</i> , 2018 , 1, 561-571	4.1	22
100	Revisiting the Anomalous Bending Elasticity of Sharply Bent DNA. <i>Biophysical Journal</i> , 2015 , 109, 2338-51.9	51.9	22
99	Effect of disorder on DNA electrophoresis in a microfluidic array of obstacles. <i>Physical Review E</i> , 2007 , 76, 040903	2.4	22
98	Self-organizing microfluidic crystals. <i>Soft Matter</i> , 2014 , 10, 5177-91	3.6	21
97	Synthesis of magnetic hydrogel microparticles for bioassays and tweezer manipulation in microwells. <i>Microfluidics and Nanofluidics</i> , 2012 , 13, 665-674	2.8	21
96	Time-dependent bending rigidity and helical twist of DNA by rearrangement of bound HU protein. <i>Nucleic Acids Research</i> , 2013 , 41, 8280-8	20.1	21
95	Kinetics of the Change in Droplet Size during Nanoemulsion Formation. <i>Langmuir</i> , 2016 , 32, 11551-11559	11.559	20
94	Universal Knot Spectra for Confined Polymers. <i>Macromolecules</i> , 2018 , 51, 6327-6333	5.5	20
93	Using stop-flow lithography to produce opaque microparticles: synthesis and modeling. <i>Langmuir</i> , 2011 , 27, 13813-9	4	20
92	Brownian Dynamics Simulations of a DNA Molecule Colliding with a Small Cylindrical Post. <i>Macromolecules</i> , 2007 , 40, 9151-9163	5.5	20
91	Translocation dynamics of knotted polymers under a constant or periodic external field. <i>Soft Matter</i> , 2016 , 12, 5041-9	3.6	20
90	Weak acids as an alternative anti-microbial therapy. <i>Biofilm</i> , 2020 , 2, 100019	5.9	19
89	Knots modify the coil-stretch transition in linear DNA polymers. <i>Soft Matter</i> , 2018 , 14, 1689-1698	3.6	19
88	Tuning curvature in flow lithography: a new class of concave/convex particles. <i>Langmuir</i> , 2009 , 25, 5986-92	59.8692	19
87	Intrachain dynamics of large dsDNA confined to slitlike channels. <i>Physical Review Letters</i> , 2013 , 110, 068101	0.68101	18
86	Low Energy Nanoemulsions as Templates for the Formulation of Hydrophobic Drugs. <i>Advanced Therapeutics</i> , 2018 , 1, 1700020	4.9	17
85	Jamming of Knots along a Tensioned Chain. <i>ACS Macro Letters</i> , 2016 , 5, 123-127	6.6	17

84	Simulation of electrophoretic stretching of DNA in a microcontraction using an obstacle array for conformational preconditioning. <i>Biomicrofluidics</i> , 2009 , 3, 12803	3.2	17
83	Effect of internal architecture on microgel deformation in microfluidic constrictions. <i>Soft Matter</i> , 2017 , 13, 1920-1928	3.6	16
82	Steady-State and Transient Behavior of Knotted Chains in Extensional Fields. <i>ACS Macro Letters</i> , 2017 , 6, 1285-1289	6.6	16
81	Using magnetically responsive tea waste to remove lead in waters under environmentally relevant conditions. <i>PLoS ONE</i> , 2013 , 8, e66648	3.7	16
80	Effects of Intrachain Interactions on the Knot Size of a Polymer. <i>Macromolecules</i> , 2016 , 49, 7581-7587	5.5	16
79	Long-Lived Self-Entanglements in Ring Polymers. <i>Physical Review Letters</i> , 2019 , 123, 048002	7.4	15
78	Synthesis of colloidal microgels using oxygen-controlled flow lithography. <i>Soft Matter</i> , 2014 , 10, 7595-6056	3.5	15
77	Rapid microRNA Profiling on Encoded Gel Microparticles. <i>Angewandte Chemie</i> , 2011 , 123, 2337-2341	3.6	15
76	Designable 3D Microshapes Fabricated at the Intersection of Structured Flow and Optical Fields. <i>Small</i> , 2018 , 14, e1803585	11	15
75	Multiple particle tracking study of thermally-gelling nanoemulsions. <i>Soft Matter</i> , 2017 , 13, 6606-6619	3.6	14
74	Arrested chain growth during magnetic directed particle assembly in yield stress matrix fluids. <i>Langmuir</i> , 2012 , 28, 3683-9	4	14
73	Collective dynamics of small clusters of particles flowing in a quasi-two-dimensional microchannel. <i>Soft Matter</i> , 2012 , 8, 10676	3.6	14
72	Celebrating Soft Matter's 10th Anniversary: Sequential phase transitions in thermoresponsive nanoemulsions. <i>Soft Matter</i> , 2015 , 11, 8426-31	3.6	13
71	Nonfouling, Encoded Hydrogel Microparticles for Multiplex MicroRNA Profiling Directly from Formalin-Fixed, Paraffin-Embedded Tissue. <i>Analytical Chemistry</i> , 2018 , 90, 10279-10285	7.8	13
70	Scattering and nonlinear bound states of hydrodynamically coupled particles in a narrow channel. <i>Physical Review E</i> , 2012 , 85, 016325	2.4	13
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