Edith M Sevick

List of Publications by Year
in descending order

47 papers	1,588 citations	394421 19 h-index	289244 40 g-index
48 all docs	48 docs citations	48 times ranked	1203 citing authors

#	Article	IF	Citations
1	Triangular cyclic rotaxanes: Size, fluctuations, and switching properties. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9367-9372.	7.1	5
2	Rotaxane liquid crystals with variable length: The effect of switching efficiency on the isotropic-nematic transition. Journal of Chemical Physics, 2018, 148, 134905.	3.0	3
3	Mechanical Conformers of Keyring Catenanes. Journal of Physical Chemistry A, 2018, 122, 8923-8930.	2.5	1
4	A Twoâ€Stroke, Twoâ€Cylinder Piston Rotaxane Motor. ChemPhysChem, 2016, 17, 1927-1933.	2.1	4
5	Isotropic and nematic liquid crystalline phases of adaptive rotaxanes. Journal of Chemical Physics, 2016, 144, 124901.	3.0	6
6	Equilibrium binding energies from fluctuation theorems and force spectroscopy simulations. Soft Matter, 2016, 12, 9803-9820.	2.7	2
7	Threading a Ring or Tube onto a Rod: An Entropically Rare Event. Nano Letters, 2016, 16, 671-674.	9.1	7
8	Fast switching from isotropic liquids to nematic liquid crystals: rotaxanes as smart fluids. Chemical Communications, 2015, 51, 16541-16544.	4.1	7
9	Conformational isomers of linear rotaxanes. Journal of Chemical Physics, 2014, 141, 114904.	3.0	9
10	Mobile Rings on a Polyrotaxane Lead to a Yield Force. Macromolecules, 2013, 46, 4191-4197.	4.8	34
11	A Piston-Rotaxane with Two Potential Stripes: Force Transitions and Yield Stresses. Molecules, 2013, 18, 13398-13409.	3.8	8
12	A Piston-Rotaxane with Two Potential Stripes: Force Transitions and Yield Stresses. Molecules, 2013, 18, 13398-13409.	3.8	4
13	Dynamics of molecular shock-absorbers: energy dissipation and the Fluctuation Theorem. Soft Matter, 2011, 7, 5739.	2.7	8
14	Piston Rotaxane Monolayers: Shear Swelling and Nanovalve Behavior. Macromolecules, 2010, 43, 7244-7249.	4.8	11
15	A Model of a Homopolymer Brush as a Switch. Macromolecules, 2010, 43, 2042-2047.	4.8	0
16	Piston-Rotaxanes as Molecular Shock Absorbers. Langmuir, 2010, 26, 5864-5868.	3.5	30
17	Hydrodynamic Mobility of an Optically Trapped Colloidal Particle near Fluid-Fluid Interfaces. Physical Review Letters, 2009, 103, 248303.	7.8	42
18	Fluctuation Theorems. Annual Review of Physical Chemistry, 2008, 59, 603-633.	10.8	218

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19	A unified description of two theorems in non-equilibrium statistical mechanics: The fluctuation theorem and the work relation. Europhysics Letters, 2005, 72, 726-732.	2.0	35
20	Demonstration of the steady-state fluctuation theorem from a single trajectory. Journal of Physics Condensed Matter, 2005, 17, S3239-S3244.	1.8	18
21	The Kawasaki identity and the Fluctuation Theorem. Journal of Chemical Physics, 2004, 121, 8179.	3.0	24
22	Fluctuations and Irreversibility: An Experimental Demonstration of a Second-Law-Like Theorem Using a Colloidal Particle Held in an Optical Trap. Physical Review Letters, 2004, 92, 140601.	7.8	223
23	AFM Evidence of Rayleigh Instability in Single Polymer Chains. Langmuir, 2002, 18, 2174-2182.	3.5	105
24	Compression and Escape of Copolymers of Adsorbing and Nonadsorbing Blocks. Macromolecules, 2001, 34, 1908-1916.	4.8	10
25	Long-lived states in electrophoresis: Collision of a polymer chain with two or more obstacles. Europhysics Letters, 2001, 56, 529-535.	2.0	18
26	Compression and Escape of a Star Polymer. Macromolecules, 2000, 33, 5743-5746.	4.8	15
27	Compression of a polymer chain by a small obstacle: The effect of fluctuations on the escape transition. Physical Review E, 1999, 60, 6906-6918.	2.1	25
28	Polymers Grafted onto Strongly Adsorbing Surfaces in Poor Solvents: Stretching, Fission, Phase Separation, and Globular Micelles in 2D. Physical Review Letters, 1999, 82, 2701-2704.	7.8	17
29	Collision of a Field-Driven Polymer with a Finite-Sized Obstacle:Â A Brownian Dynamics Simulation. Macromolecules, 1999, 32, 892-899.	4.8	39
30	The Detachment of a Polymer Chain from a Weakly Adsorbing Surface Using an AFM Tip. Langmuir, 1999, 15, 3886-3892.	3.5	83
31	A Polymer End-Tethered to a Potential Stripe:Â A Simple Example of an Escape Transition. Macromolecules, 1999, 32, 6841-6846.	4.8	21
32	Compression-Induced Phase Transitions in Water-Soluble Polymer Brushes:â€‰ The n-Cluster Model. Macromolecules, 1998, 31, 3361-3367.	4.8	16
33	Linear Self-Assembled Systems and the Effect of Capping Defects. Langmuir, 1998, 14, 3137-3139.	3.5	10
34	End-Tethered Polymer Chains under AFM Tips:â€‰ Compression and Escape in Theta Solvents. Langmuir, 1997, 13, 5691-5696.	3.5	55
35	Shear Swelling of Polymer Brushes Grafted onto Convex and Concave Surfaces. Macromolecules, 1996, 29, 6952-6958.	4.8	44
36	Anomalous height increases upon bending for an Alexanderâ€“de Gennes polymer brush. Journal of Chemical Physics, 1996, 105, 9334-9338.	3.0	2

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37	Collision of a Field-Driven Polymer with a Post: Electrophoresis in Microlithographic Arrays. Physical Review Letters, 1996, 76, 2595-2598.	7.8	46
38	Polymer Brush-Lined Membranes for Flow and Filtration Control. Materials Research Society Symposia Proceedings, 1995, 385, 213.	0.1	1
39	Coil-Stretch Transitions for Grafted Polymers in Spatially Varying Flows. Europhysics Letters, 1995, 31, 357-362.	2.0	8
40	Motion of a polyelectrolyte chain hooked around a post. Physical Review E, 1994, 50, R3357-R3360.	2.1	34
41	Polymer Brushes as Pressure-Sensitive Automated Microvalves. Macromolecules, 1994, 27, 5285-5290.	4.8	43
42	A chain of states method for investigating infrequent event processes occurring in multistate, multidimensional systems. Journal of Chemical Physics, 1993, 98, 3196-3212.	3.0	75
43	Cluster integrals for square well particles: Application to percolation. Journal of Chemical Physics, 1991, 94, 3070-3082.	3.0	13
44	Dilute heteroaggregation: A description of critical gelation using a clusterâ€"cluster aggregation model. Journal of Colloid and Interface Science, 1991, 144, 561-570.	9.4	10
45	Morphology and transport using the Ising lattice as a morphology description. Chemical Engineering Science, 1989, 44, 21-32.	3.8	3
46	Monte Carlo calculations of cluster statistics in continuum models of composite morphology. Journal of Chemical Physics, 1988, 88, 1198-1206.	3.0	179
47	Clustering and percolation in assemblies of anisotropic particles: Perturbation theory and Monte Carlo simulation. Physical Review A, 1988, 38, 5376-5383.	2.5	16