

# Alfredo Alexander-Katz

## List of Publications by Citations

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60  
papers

1,395  
citations

20  
h-index

36  
g-index

64  
ext. papers

1,677  
ext. citations

9.6  
avg, IF

4.83  
L-index

#	Paper	IF	Citations
60	Morphology control in block copolymer films using mixed solvent vapors. <i>ACS Nano</i> , <b>2012</b> , 6, 8052-9	16.7	172
59	Lipid tail protrusions mediate the insertion of nanoparticles into model cell membranes. <i>Nature Communications</i> , <b>2014</b> , 5, 4482	17.4	163
58	Graft-through Synthesis and Assembly of Janus Bottlebrush Polymers from A-Branch-B Diblock Macromonomers. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 11501-4	16.4	117
57	Multilayer block copolymer meshes by orthogonal self-assembly. <i>Nature Communications</i> , <b>2016</b> , 7, 10518	17.4	70
56	Design rules for self-assembled block copolymer patterns using tiled templates. <i>Nature Communications</i> , <b>2014</b> , 5, 3305	17.4	67
55	Optimizing topographical templates for directed self-assembly of block copolymers via inverse design simulations. <i>Nano Letters</i> , <b>2014</b> , 14, 318-25	11.5	58
54	Thin Film Morphologies of Bulk-Gyroid Polystyrene-block-polydimethylsiloxane under Solvent Vapor Annealing. <i>Macromolecules</i> , <b>2014</b> , 47, 6000-6008	5.5	53
53	Diblock Copolymer Thin Films: A Field-Theoretic Simulation Study. <i>Macromolecules</i> , <b>2007</b> , 40, 4075-4087	5.5	50
52	Inverse Design of Topographical Templates for Directed Self-Assembly of Block Copolymers.. <i>ACS Macro Letters</i> , <b>2013</b> , 2, 251-255	6.6	43
51	Internal friction and nonequilibrium unfolding of polymeric globules. <i>Physical Review Letters</i> , <b>2009</b> , 103, 028102	7.4	37
50	Enhancing the Potential of Block Copolymer Lithography with Polymer Self-Consistent Field Theory Simulations. <i>Macromolecules</i> , <b>2010</b> , 43, 8290-8295	5.5	36
49	Globule Stretch Transitions of Collapsed Polymers in Elongational Flow Fields. <i>Macromolecules</i> , <b>2010</b> , 43, 3532-3541	5.5	32
48	Hematocrit and flow rate regulate the adhesion of platelets to von Willebrand factor. <i>Biomicrofluidics</i> , <b>2013</b> , 7, 64113	3.2	30
47	Unraveling the complexity of amyloid polymorphism using gold nanoparticles and cryo-EM. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 6866-6874	11.5	27
46	Energy landscape for the insertion of amphiphilic nanoparticles into lipid membranes: A computational study. <i>PLoS ONE</i> , <b>2019</b> , 14, e0209492	3.7	25
45	Field-theoretic simulations of polymer solutions: finite-size and discretization effects. <i>Journal of Chemical Physics</i> , <b>2005</b> , 122, 14904	3.9	25
44	Nanoscale spirals by directed self-assembly. <i>Nano Futures</i> , <b>2017</b> , 1, 015001	3.6	23

43	Perpendicular Block Copolymer Microdomains in High Aspect Ratio Templates. <i>Nano Letters</i> , <b>2015</b> , 15, 6901-8	11.5	22
42	Understanding the synergistic effect of physicochemical properties of nanoparticles and their cellular entry pathways. <i>Communications Biology</i> , <b>2020</b> , 3, 205	6.7	22
41	Emergent ultra-long-range interactions between active particles in hybrid active-inactive systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 4652-7	11.5	21
40	3D TEM Tomography of Templated Bilayer Films of Block Copolymers. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 7689-7697	15.6	20
39	Dictating Nanoparticle Assembly via Systems-Level Control of Molecular Multivalency. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 14624-14632	16.4	19
38	Solvent-exposed lipid tail protrusions depend on lipid membrane composition and curvature. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>2016</b> , 1858, 1207-15	3.8	18
37	Inverting the design path for self-assembled block copolymers. <i>Molecular Systems Design and Engineering</i> , <b>2017</b> , 2, 539-548	4.6	16
36	Structure and dynamics of blood-clotting-inspired polymer-colloid composites. <i>Soft Matter</i> , <b>2013</b> , 9, 10381-10386	16	16
35	Double-Layer Morphologies from a Silicon-Containing ABA Triblock Copolymer. <i>ACS Nano</i> , <b>2018</b> , 12, 6193-6202	15	15
34	Artificial tribotactic microscopic walkers: walking based on friction gradients. <i>Physical Review Letters</i> , <b>2014</b> , 113, 178101	7.4	13
33	Theory of Tethered Polymers in Shear Flow: The Strong Stretching Limit. <i>Macromolecules</i> , <b>2011</b> , 44, 9020-9028	13	13
32	Calcium-triggered fusion of lipid membranes is enabled by amphiphilic nanoparticles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 18470-18476	11.5	13
31	Machine Learning Predictions of Block Copolymer Self-Assembly. <i>Advanced Materials</i> , <b>2020</b> , 32, e20057134	13	13
30	Emergent symmetries in block copolymer epitaxy. <i>Nature Communications</i> , <b>2019</b> , 10, 2974	17.4	11
29	Controlling polyelectrolyte equilibria and structure via counterion-solvent interactions. <i>Soft Matter</i> , <b>2009</b> , 5, 2198	3.6	11
28	Grafting Charged Species to Membrane-Embedded Scaffolds Dramatically Increases the Rate of Bilayer Flipping. <i>ACS Central Science</i> , <b>2017</b> , 3, 186-195	16.8	10
27	Phase Behavior of Disk-Coil Macromolecules. <i>Macromolecules</i> , <b>2011</b> , 44, 7016-7025	5.5	9
26	Imparting Superhydrophobicity with a Hierarchical Block Copolymer Coating. <i>Small</i> , <b>2020</b> , 16, e1905509	11	9

25	Computational Insights into the Binding of Monolayer-Capped Gold Nanoparticles onto Amyloid- $\beta$ Fibrils. <i>ACS Chemical Neuroscience</i> , <b>2020</b> , 11, 3153-3160	5.7	9
24	Computational Insights into Avidity of Polymeric Multivalent Binders. <i>Biophysical Journal</i> , <b>2019</b> , 117, 892-902	2.9	8
23	Single-Nanometer Changes in Nanopore Geometry Influence Curvature, Local Properties, and Protein Localization in Membrane Simulations. <i>Nano Letters</i> , <b>2019</b> , 19, 4770-4778	11.5	8
22	Self-Directed Self-Assembly of 3D Tailored Block Copolymer Nanostructures. <i>ACS Nano</i> , <b>2020</b> , 14, 15182-15192	16.7	8
21	Dissipative particle dynamics for directed self-assembly of block copolymers. <i>Journal of Chemical Physics</i> , <b>2019</b> , 151, 154905	3.9	7
20	Effect of Molecular Architecture on the Self-Assembly of Bottlebrush Copolymers. <i>Journal of Physical Chemistry B</i> , <b>2020</b> , 124, 11519-11529	3.4	7
19	Behavior of Protein-Inspired Synthetic Random Heteropolymers. <i>Macromolecules</i> , <b>2020</b> , 53, 9187-9199	5.5	6
18	Unfolding of collapsed polymers in shear flow: effects of colloid banding structures in confining channels. <i>Physical Review E</i> , <b>2014</b> , 89, 032602	2.4	5
17	Directed self-assembly of a two-state block copolymer system. <i>Nano Convergence</i> , <b>2018</b> , 5, 25	9.2	5
16	Micromechanical model for isolated polymer-colloid clusters under tension. <i>Physical Review E</i> , <b>2016</b> , 94, 042501	2.4	4
15	STING agonist delivery by tumour-penetrating PEG-lipid nanodiscs primes robust anticancer immunity. <i>Nature Materials</i> , <b>2022</b> , 21, 710-720	27	4
14	Coarse-Grained Simulations Suggest the Epsin N-Terminal Homology Domain Can Sense Membrane Curvature without Its Terminal Amphipathic Helix. <i>ACS Nano</i> , <b>2020</b> ,	16.7	3
13	Random copolymers that protect proteins. <i>Science</i> , <b>2018</b> , 359, 1216-1217	33.3	3
12	Simulations of Polymer Solutions: A Field-Theoretic Approach. <i>ACS Symposium Series</i> , <b>2003</b> , 279-289	0.4	3
11	Metallic Nanomeshes Fabricated by Multimechanism Directed Self-Assembly. <i>ACS Nano</i> , <b>2021</b> , 15, 16266-16276	16.7	3
10	Polymer Stiffness Regulates Multivalent Binding and Liquid-Liquid Phase Separation. <i>Biophysical Journal</i> , <b>2020</b> , 119, 1849-1864	2.9	3
9	Forced Unfolding of Protein-Inspired Single-Chain Random Heteropolymers. <i>Macromolecules</i> ,	5.5	2
8	Influence of Binding Site Affinity Patterns on Binding of Multivalent Polymers. <i>ACS Omega</i> , <b>2020</b> , 5, 10774-10781	3.9	2

7	Platelet adhesion and aggregate formation controlled by immobilised and soluble VWF. <i>BMC Molecular and Cell Biology</i> , <b>2020</b> , 21, 64	2.7	2
6	Controlled Water Uptake in Fuel Cell Membranes with Dual Chemistry Confinement. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 6662-6670	9.6	2
5	Topographic Templating: Rectangular Symmetry Morphologies in a Topographically Templated Block Copolymer (Adv. Mater. 31/2012). <i>Advanced Materials</i> , <b>2012</b> , 24, 4343-4343	24	1
4	Solvent Remodeling in Single-Chain Amphiphilic Heteropolymer Systems.. <i>Macromolecular Rapid Communications</i> , <b>2022</b> , e2200142	4.8	1
3	Multivalent polymers can control phase boundary, dynamics, and organization of liquid-liquid phase separation. <i>PLoS ONE</i> , <b>2021</b> , 16, e0245405	3.7	0
2	Diversifying Composition Leads to Hierarchical Composites with Design Flexibility and Structural Fidelity. <i>ACS Nano</i> , <b>2021</b> , 15, 14095-14104	16.7	0
1	Self-Assembly: Sacrificial-Post Templating Method for Block Copolymer Self-Assembly (Small 3/2014). <i>Small</i> , <b>2014</b> , 10, 418-418	11	