Abelardo Ramirez-Hernandez

List of Publications by Year
in descending order

43 papers	1,536 citations	279701 23 h-index	302012 39 g-index
43 all docs	43 docs citations	43 times ranked	1538 citing authors

#	Article	IF	Citations
1	Chemical Patterns for Directed Self-Assembly of Lamellae-Forming Block Copolymers with Density Multiplication of Features. Macromolecules, 2013, 46, 1415-1424.	2.2	201
2	Directly Observing Micelle Fusion and Growth in Solution by Liquid-Cell Transmission Electron Microscopy. Journal of the American Chemical Society, 2017, 139, 17140-17151.	6.6	118
3	Characterizing the Three-Dimensional Structure of Block Copolymers via Sequential Infiltration Synthesis and Scanning Transmission Electron Tomography. ACS Nano, 2015, 9, 5333-5347.	7.3	98
4	Molecular pathways for defect annihilation in directed self-assembly. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14144-14149.	3.3	98
5	Simulation of Defect Reduction in Block Copolymer Thin Films by Solvent Annealing. ACS Macro Letters, 2015, 4, 11-15.	2.3	79
6	Violation of the Zeroth Law of Thermodynamics in Systems with Negative Specific Heat. Physical Review Letters, 2008, 100, 120601.	2.9	66
7	Dynamical Simulations of Coarse Grain Polymeric Systems: Rouse and Entangled Dynamics. Macromolecules, 2013, 46, 6287-6299.	2.2	59
8	Systems with negative specific heat in thermal contact: Violation of the zeroth law. Physical Review E, 2008, 78, 061133.	0.8	52
9	Topcoat Approaches for Directed Self-Assembly of Strongly Segregating Block Copolymer Thin Films. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2013, 26, 55-58.	0.1	52
10	Block Copolymer Assembly on Nanoscale Patterns of Polymer Brushes Formed by Electrohydrodynamic Jet Printing. ACS Nano, 2014, 8, 6606-6613.	7.3	52
11	Theoretically informed entangled polymer simulations: linear and non-linear rheology of melts. Soft Matter, 2013, 9, 2030.	1.2	43
12	A multichain polymer slip-spring model with fluctuating number of entanglements for linear and nonlinear rheology. Journal of Chemical Physics, 2015, 143, 243147.	1.2	42
13	Mesoscale martensitic transformation in single crystals of topological defects. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10011-10016.	3.3	42
14	Nonbulk Complex Structures in Thin Films of Symmetric Block Copolymers on Chemically Nanopatterned Surfaces. Macromolecules, 2012, 45, 3986-3992.	2.2	40
15	Polymerâ€“solid contacts described by soft, coarse-grained models. Physical Chemistry Chemical Physics, 2011, 13, 10491.	1.3	38
16	Defect Annihilation Pathways in Directed Assembly of Lamellar Block Copolymer Thin Films. ACS Nano, 2018, 12, 9974-9981.	7.3	38
17	Control of Directed Self-Assembly in Block Polymers by Polymeric Topcoats. Macromolecules, 2014, 47, 3520-3527.	2.2	36
18	Morphology of Lamellae-Forming Block Copolymer Films between Two Orthogonal Chemically Nanopatterned Striped Surfaces. Physical Review Letters, 2012, 108, 065502.	2.9	34

#	Article	IF	Citations
19	A multi-chain polymer slip-spring model with fluctuating number of entanglements: Density fluctuations, confinement, and phase separation. Journal of Chemical Physics, 2017, 146, 014903.	1.2	34
20	Liquid crystal nanodroplets, and the balance between bulk and interfacial interactions. Soft Matter, 2012, 8, 1443-1450.	1.2	32
21	Nonequilibrium Simulations of Lamellae Forming Block Copolymers under Steady Shear: A Comparison of Dissipative Particle Dynamics and Brownian Dynamics. Macromolecules, 2012, 45, 8109-8116.	2.2	32
22	Understanding Atomic-Scale Behavior of Liquid Crystals at Aqueous Interfaces. Journal of Chemical Theory and Computation, 2017, 13, 237-244.	2.3	31
23	Symmetric Diblock Copolymers Confined by Two Nanopatterned Surfaces. Macromolecules, 2012, 45, 2588-2596.	2.2	25
24	Segregation of liquid crystal mixtures in topological defects. Nature Communications, 2017, 8, 15064.	5.8	25
25	Kinetically-arrested single-polymer nanostructures from amphiphilic mikto-grafted bottlebrushes in solution: a simulation study. Soft Matter, 2020, 16, 4969-4979.	1.2	24
26	Enzyme-Induced Kinetic Control of Peptideâ€“Polymer Micelle Morphology. ACS Macro Letters, 2019, 8, 676-681.	2.3	22
27	A Detailed Examination of the Topological Constraints of Lamellae-Forming Block Copolymers. Macromolecules, 2018, 51, 2110-2124.	2.2	19
28	Demixing by a Nematic Mean Field: Coarse-Grained Simulations of Liquid Crystalline Polymers. Polymers, 2017, 9, 88.	2.0	18
29	Numerical simulation of Gaussian chains near hard surfaces. Journal of Chemical Physics, 2010, 133, 064905.	1.2	13
30	Interplay of Surface Energy and Bulk Thermodynamic Forces in Ordered Block Copolymer Droplets. Macromolecules, 2015, 48, 4717-4723.	2.2	11
31	Phase behavior of a two-dimensional core-softened system: new physical insights. Journal of Physics Condensed Matter, 2020, 32, 275103.	0.7	8
32	A Bidimensional Gay-Berne Calamitic Fluid: Structure and Phase Behavior in Bulk and Strongly Confined Systems. Frontiers in Physics, 2021, 8, .	1.0	8
33	Dynamics and phase behavior of two-dimensional size-asymmetric binary mixtures of core-softened colloids. Journal of Chemical Physics, 2021, 155, 214901.	1.2	8
34	Self-Aassembly of core-corona colloids under cylindrical confinement: A Monte Carlo study. Journal of Molecular Liquids, 2021, 335, 116219.	2.3	7
35	Grazing-incidence small angle x-ray scattering studies of nanoscale polymer gratings. Proceedings of SPIE, 2015, , .	0.8	5
36	Mesoscale Simulations of Polymer Solution Self-Assembly: Selection of Model Parameters within an Implicit Solvent Approximation. Polymers, 2021, 13, 953.	2.0	5

#	Article	IF	Citations
37	Phase diagrams of simple models of colloidal nanocrystals in two dimensions. JPhys Materials, 2021, 4, 015006.	1.8	5
38	RamÃ‧rez-HernÃ¡ndez, Larralde, and Leyvraz Reply:. Physical Review Letters, 2009, 102, .	2.9	3
39	Investigation of cross-linking poly(methyl methacrylate) as a guiding material in block copolymer directed self-assembly. , 2014, , .		3
40	Hierarchical complex self-assembly in binary nanoparticle mixtures. Journal of Physics Condensed Matter, 2019, 31, 475102.	0.7	3
41	Grain polydispersity and coherent crystal reorientations are features to foster stress hotspots in polycrystalline alloys under load. Science Advances, 2021, 7, .	4.7	3
42	Is the â€œBricks-and-Mortarâ€•Mesophase Bicontinuous? Dynamic Simulations of Miktoarm Block Copolymer/Homopolymer Blends. Macromolecules, 2022, 55, 745-758.	2.2	3
43	A simple method to design interaction potentials able to generate a desired geometrical pattern. Journal of Molecular Liquids, 2021, 339, 116387.	2.3	1