Angel J Moreno

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2380672/publications.pdf

Version: 2024-02-01

105 papers	3,440 citations	109137 35 h-index	161609 54 g-index
107 all docs	107 docs citations	107 times ranked	2091 citing authors

#	Article	IF	Citations
1	How Far Are Single-Chain Polymer Nanoparticles in Solution from the Globular State?. ACS Macro Letters, 2014, 3, 767-772.	2.3	152
2	Model for Reversible Colloidal Gelation. Physical Review Letters, 2005, 94, 218301.	2.9	143
3	Endowing Single-Chain Polymer Nanoparticles with Enzyme-Mimetic Activity. ACS Macro Letters, 2013, 2, 775-779.	2.3	129
4	â€œMichaelâ€•Nanocarriers Mimicking Transient-Binding Disordered Proteins. ACS Macro Letters, 2013, 2, 491-495.	2.3	106
5	Relaxation scenarios in a mixture of large and small spheres: Dependence on the size disparity. Journal of Chemical Physics, 2006, 125, 164507.	1.2	91
6	Anomalous dynamic arrest in a mixture of large and small particles. Physical Review E, 2006, 74, 021409.	0.8	90
7	Advantages of Orthogonal Folding of Single Polymer Chains to Soft Nanoparticles. Macromolecules, 2013, 46, 9748-9759.	2.2	89
8	Gel to glass transition in simulation of a valence-limited colloidal system. Journal of Chemical Physics, 2006, 124, 124908.	1.2	85
9	Design and Preparation of Singleâ€€Chain Nanocarriers Mimicking Disordered Proteins for Combined Delivery of Dermal Bioactive Cargos. Macromolecular Rapid Communications, 2013, 34, 1681-1686.	2.0	82
10	Increasing the density melts ultrasoft colloidal glasses. Physical Review E, 2010, 82, 060501.	0.8	78
11	Efficient Route to Compact Single-Chain Nanoparticles: Photoactivated Synthesis via Thiolâ€“Yne Coupling Reaction. Macromolecules, 2014, 47, 8270-8280.	2.2	77
12	Neutron scattering investigations on methyl group dynamics in polymers. Progress in Polymer Science, 2005, 30, 1147-1184.	11.8	75
13	Single-chain nanoparticles: opportunities provided by internal and external confinement. Materials Horizons, 2020, 7, 2292-2313.	6.4	72
14	Numerical modelling of non-ionic microgels: an overview. Soft Matter, 2019, 15, 1108-1119.	1.2	67
15	Concentrated Solutions of Single-Chain Nanoparticles: A Simple Model for Intrinsically Disordered Proteins under Crowding Conditions. Journal of Physical Chemistry Letters, 2016, 7, 838-844.	2.1	64
16	Diffusion and Relaxation Dynamics in Cluster Crystals. Physical Review Letters, 2007, 99, 107801.	2.9	63
17	Fluids of semiflexible ring polymers: effective potentials and clustering. Soft Matter, 2013, 9, 1287-1300.	1.2	61
18	Simulation guided design of globular single-chain nanoparticles by tuning the solvent quality. Soft Matter, 2015, 11, 1369-1375.	1.2	58

#	Article	IF	Citations
19	Effects of Knots on Ring Polymers in Solvents of Varying Quality. Macromolecules, 2013, 46, 3654-3668.	2.2	57
20	Influence of topology on effective potentials: coarse-graining ring polymers. Soft Matter, 2010, 6, 2435.	1.2	55
21	Evidence for the Weak Steric Hindrance Scenario in the Supercooled-State Reorientational Dynamics. Physical Review Letters, 2005, 94, 215701.	2.9	54
22	Routes to colloidal gel formation. Computer Physics Communications, 2005, 169, 166-171.	3.0	52
23	Inelastic neutron scattering for investigating the dynamics of confined glass-forming liquids. Journal of Non-Crystalline Solids, 2005, 351, 2657-2667.	1.5	51
24	On the Apparent SEC Molecular Weight and Polydispersity Reduction upon Intramolecular Collapse of Polydisperse Chains to Unimolecular Nanoparticles. Macromolecules, 2011, 44, 8644-8649.	2.2	49
25	Folding Single Chains to Single-Chain Nanoparticles via Reversible Interactions: What Size Reduction Can One Expect?. Macromolecules, 2017, 50, 1732-1739.	2.2	49
26	Is there a higher-order mode coupling transition in polymer blends?. Journal of Chemical Physics, 2006, 124, 184906.	1.2	46
27	Energy Landscape of a Simple Model for Strong Liquids. Physical Review Letters, 2005, 95, 157802.	2.9	45
28	Dynamics of Branched Polymers: A Combined Study by Molecular Dynamics Simulations and Tube Theory. Macromolecules, 2013, 46, 4633-4650.	2.2	45
29	Cluster Glasses of Semiflexible Ring Polymers. ACS Macro Letters, 2014, 3, 611-616.	2.3	45
30	Chain Motion in Nonentangled Dynamically Asymmetric Polymer Blends: Comparison between Atomistic Simulations of PEO/PMMA and a Generic Beadâ^'Spring Model. Macromolecules, 2010, 43, 3036-3051.	2.2	44
31	Structure and dynamics of single-chain nano-particles in solution. Polymer, 2016, 105, 532-544.	1.8	44
32	Dynamic Arrest in Polymer Melts: Competition between Packing and Intramolecular Barriers. Physical Review Letters, 2008, 101, 255701.	2.9	43
33	Multi-orthogonal folding of single polymer chains into soft nanoparticles. Soft Matter, 2014, 10, 4813-4821.	1.2	43
34	A Solventâ€Based Strategy for Tuning the Internal Structure of Metalloâ€Folded Singleâ€Chain Nanoparticles. Macromolecular Rapid Communications, 2016, 37, 1060-1065.	2.0	39
35	Multi-blob coarse graining for ring polymer solutions. Soft Matter, 2014, 10, 9601-9614.	1.2	38
36	Computational investigation of microgels: synthesis and effect of the microstructure on the deswelling behavior. Soft Matter, 2018, 14, 7083-7096.	1.2	37

#	Article	IF	Citations
37	Dynamic arrest in a liquid of symmetric dumbbells: Reorientational hopping for small molecular elongations. Journal of Chemical Physics, 2005, 123, 204505.	1.2	34
38	Heterogeneity of the Segmental Dynamics in Lamellar Phases of Diblock Copolymers. Macromolecules, 2011, 44, 6952-6961.	2.2	34
39	Methyl Group Dynamics in Poly(methyl methacrylate):â€‰ From Quantum Tunneling to Classical Hopping. Macromolecules, 2001, 34, 4886-4896.	2.2	33
40	Dynamic Heterogeneity in Random and Gradient Copolymers: A Computational Investigation. Macromolecules, 2013, 46, 5066-5079.	2.2	32
41	An Anisotropic Effective Model for the Simulation of Semiflexible Ring Polymers. Macromolecules, 2015, 48, 4983-4997.	2.2	32
42	The Role of the Topological Constraints in the Chain Dynamics in All-Polymer Nanocomposites. Macromolecules, 2017, 50, 1719-1731.	2.2	31
43	Crowding the Environment of Single-Chain Nanoparticles: A Combined Study by SANS and Simulations. Macromolecules, 2018, 51, 1573-1585.	2.2	31
44	Entangledlike Chain Dynamics in Nonentangled Polymer Blends with Large Dynamic Asymmetry. Physical Review Letters, 2008, 100, 126001.	2.9	29
45	Effect of Blending on the Chain Dynamics of the â€œLow-T_gâ€•Component in Nonentangled and Dynamically Asymmetric Polymer Blends. Macromolecules, 2011, 44, 3611-3621.	2.2	29
46	Cluster crystals in confinement. Soft Matter, 2009, 5, 1024.	1.2	28
47	Anisotropic effective interactions and stack formation in mixtures of semiflexible ring polymers. Soft Matter, 2016, 12, 4805-4820.	1.2	28
48	Isotope effect on the rotational tunneling transitions of methyl groups in glassy polymers. Physical Review B, 1999, 59, 5983-5986.	1.1	27
49	Structure and Dynamics of Self-Assembled Comb Copolymers: Comparison between Simulations of a Generic Model and Neutron Scattering Experiments. Macromolecules, 2011, 44, 1695-1706.	2.2	27
50	Cluster-forming systems of ultrasoft repulsive particles: statics and dynamics. Computer Physics Communications, 2008, 179, 71-76.	3.0	25
51	Non-Gaussian energy landscape of a simple model for strong network-forming liquids: Accurate evaluation of the configurational entropy. Journal of Chemical Physics, 2006, 124, 204509.	1.2	24
52	Cluster glasses of ultrasoft particles. Journal of Chemical Physics, 2012, 137, 184904.	1.2	23
53	Size of Elastic Single-Chain Nanoparticles in Solution and on Surfaces. Macromolecules, 2017, 50, 6323-6331.	2.2	23
54	Methyl group dynamics in glassy toluene: A neutron scattering study. Journal of Chemical Physics, 2001, 115, 8958-8966.	1.2	20

#	Article	IF	Citations
55	The role of intramolecular barriers on the glass transition of polymers: Computer simulations versus mode coupling theory. Journal of Chemical Physics, 2009, 131, 204502.	1.2	20
56	Anomalous molecular weight dependence of chain dynamics in unentangled polymer blends with strong dynamic asymmetry. Soft Matter, 2012, 8, 3739.	1.2	20
57	Architecture-Induced Size Asymmetry and Effective Interactions of Ring Polymers: Simulation and Theory. Macromolecules, 2013, 46, 9437-9445.	2.2	19
58	Branch-Point Motion in Architecturally Complex Polymers: Estimation of Hopping Parameters from Computer Simulations and Experiments. Macromolecules, 2014, 47, 3362-3377.	2.2	18
59	Local Domain Size in Single-Chain Polymer Nanoparticles. ACS Omega, 2018, 3, 8648-8654.	1.6	17
60	Mesoscale Dynamics in Melts of Single-Chain Polymeric Nanoparticles. Macromolecules, 2019, 52, 6935-6942.	2.2	17
61	Effects of precursor topology and synthesis under crowding conditions on the structure of single-chain polymer nanoparticles. Soft Matter, 2017, 13, 6430-6438.	1.2	17
62	Dynamics of a rigid rod in a glassy medium. Europhysics Letters, 2004, 67, 820-826.	0.7	16
63	From caging to Rouse dynamics in polymer melts with intramolecular barriers: A critical test of the mode coupling theory. Journal of Chemical Physics, 2011, 134, 024523.	1.2	16
64	Effect of Molecular Crowding on Conformation and Interactions of Single-Chain Nanoparticles. Macromolecules, 2019, 52, 4295-4305.	2.2	16
65	Heterogeneity of the Segmental Dynamics in Cylindrical and Spherical Phases of Diblock Copolymers. Macromolecules, 2012, 45, 8841-8852.	2.2	15
66	Effect of chain stiffness on the structure of single-chain polymer nanoparticles. Journal of Physics Condensed Matter, 2018, 30, 034001.	0.7	15
67	Facile Access to Completely Deuterated Singleâ€Chain Nanoparticles Enabled by Intramolecular Azide Photodecomposition. Macromolecular Rapid Communications, 2019, 40, 1900046.	2.0	15
68	Atomic motions in the Î±Î²-region of glass-forming polymers: molecular versus mode coupling theory approach. Journal of Physics Condensed Matter, 2007, 19, 205127.	0.7	14
69	The Role of the Functionality in the Branch Point Motion in Symmetric Star Polymers: A Combined Study by Simulations and Neutron Spin Echo Spectroscopy. Macromolecules, 2018, 51, 242-253.	2.2	14
70	Relaxation dynamics of a linear molecule in a random static medium: A scaling analysis. Journal of Chemical Physics, 2004, 121, 380.	1.2	13
71	Logarithmic relaxation in a kinetically constrained model. Journal of Chemical Physics, 2006, 125, 016101.	1.2	13
72	Single-chain nanoparticles vs. star, hyperbranched and dendrimeric polymers: effect of the nanoscopic architecture on the flow properties of diluted solutions. Soft Matter, 2014, 10, 9454-9459.	1.2	13

#	Article	IF	Citations
73	Single-Chain Nanoparticles under Homogeneous Shear Flow. Macromolecules, 2019, 52, 1821-1831.	2.2	13
74	Tunable slow dynamics in a new class of soft colloids. Soft Matter, 2016, 12, 9039-9046.	1.2	12
75	Methyl group rotational tunnelling in glasses: a direct comparison with the crystal. Physica B: Condensed Matter, 2000, 276-278, 361-362.	1.3	11
76	Tests of mode coupling theory in a simple model for two-component miscible polymer blends. Journal of Physics Condensed Matter, 2007, 19, 466112.	0.7	11
77	End-to-End Vector Dynamics of Nonentangled Polymers in Lamellar Block Copolymer Melts: The Role of Junction Point Motion. Macromolecules, 2013, 46, 7477-7487.	2.2	11
78	Effective interactions of knotted ring polymers. Biochemical Society Transactions, 2013, 41, 630-634.	1.6	11
79	Methyl group dynamics in glassy systems: Crossover from quantum to classical regime. Physical Review B, 2001, 63, .	1.1	10
80	Methyl-group dynamics from tunneling to hopping inNaCH3CO2â‹…3H2O:Comparison between a crystal and its glassy counterpart. Physical Review B, 2002, 65, .	1.1	10
81	Methyl group dynamics in a confined glass. European Physical Journal E, 2003, 12, 43-46.	0.7	10
82	A Useful Methodology for Determining the Compaction Degree of Singleâ€Chain Nanoparticles by Conventional SEC. Particle and Particle Systems Characterization, 2016, 33, 373-381.	1.2	10
83	Advances in the Multi-Orthogonal Folding of Single Polymer Chains into Single-Chain Nanoparticles. Polymers, 2021, 13, 293.	2.0	10
84	Mode-coupling theory predictions for a limited valency attractive square well model. Journal of Physics Condensed Matter, 2006, 18, S2373-S2382.	0.7	9
85	Chain dynamics in nonentangled polymer melts: A first-principle approach for the role of intramolecular barriers. Soft Matter, 2011, 7, 1364.	1.2	9
86	Ultrafiltration of single-chain polymer nanoparticles through nanopores and nanoslits. Polymer, 2018, 148, 61-67.	1.8	9
87	Dynamics in binary cluster crystals. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P10015.	0.9	8
88	Real-Space Analysis of Branch Point Motion in Architecturally Complex Polymers. Macromolecules, 2014, 47, 6955-6963.	2.2	8
89	Methyl group dynamics in glassy polymers by neutron scattering: from classical to quantum motions. Physica B: Condensed Matter, 2000, 276-278, 322-325.	1.3	7
90	Deformability and solvent penetration in soft nanoparticles at liquid-liquid interfaces. Journal of Colloid and Interface Science, 2020, 570, 212-222.	5.0	7

#	Article	IF	Citations
91	Gel Formation in Reversibly Cross-Linking Polymers. Macromolecules, 2021, 54, 6613-6627.	2.2	7
92	Role of Dynamic Asymmetry on the Collective Dynamics of Comblike Polymers: Insights from Neutron Spin-Echo Experiments and Coarse-Grained Molecular Dynamics Simulations. Macromolecules, 2016, 49, 4989-5000.	2.2	6
93	Brushes of elastic single-chain nanoparticles on flat surfaces. Polymer, 2019, 169, 207-214.	1.8	6
94	The distribution of tunnelling frequencies for methyl group rotation in poly(vinyl acetate). Journal of Non-Crystalline Solids, 2001, 287, 242-245.	1.5	4
95	Soft Confinement in Spherical Mesophases of Block Copolymer Melts. Macromolecules, 2009, 42, 8543-8556.	2.2	4
96	Coarsening Kinetics of Complex Macromolecular Architectures in Bad Solvent. Polymers, 2020, 12, 531.	2.0	4
97	Dynamics of a rod in a random static environment: non-Gaussian behaviour on large length scales. Philosophical Magazine, 2004, 84, 1383-1388.	0.7	3
98	Static and dynamic contributions to anomalous chain dynamics in polymer blends. Journal of Physics Condensed Matter, 2011, 23, 234119.	0.7	3
99	Validity of Effective Potentials in Crowded Solutions of Linear and Ring Polymers with Reversible Bonds. Macromolecules, 2022, 55, 2659-2674.	2.2	3
100	Methyl group dynamics in a glass and its crystalline counterpart by neutron scattering. Applied Physics A: Materials Science and Processing, 2002, 74, s424-s426.	1.1	2
101	Dynamics of a rod in a homogeneous/inhomogeneous frozen disordered medium: Correlation functions and non-Gaussian effects. AIP Conference Proceedings, 2004, , .	0.3	2
102	Crowded solutions of single-chain nanoparticles under shear flow. Soft Matter, 2021, 17, 2223-2233.	1.2	2
103	Anomalous relaxation in binary mixtures: a dynamic facilitation picture. Journal of Physics Condensed Matter, 2007, 19, 205144.	0.7	1
104	Proposed sets of critical exponents for randomly branched polymers, using a known string theory model. Phase Transitions, 2016, 89, 543-546.	0.6	1
105	The rotational barrier for methyl group dynamics in anhydrous sodium acetate. Applied Physics A: Materials Science and Processing, 2002, 74, s1351-s1353.	1.1	0