Sanat K Kumar

List of Publications by Year
in descending order

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267 papers	17,655 citations	14124 69 h-index	18944 123 g-index
273 all docs	273 docs citations	273 times ranked	13583 citing authors

#	Article	IF	Citations
1	Controlling toughness of polymer-grafted nanoparticle composites for impact mitigation. Soft Matter, 2022, 18, 256-261.	1.2	10
2	Modeling Thermal Welding of Semicrystalline Polymers. Macromolecules, 2022, 55, 1719-1725.	2.2	5
3	Understanding Gas Transport in Polymer-Grafted Nanoparticle Assemblies. Macromolecules, 2022, 55, 3011-3019.	2.2	9
4	Crystallization kinetics and nanoparticle ordering in semicrystalline polymer nanocomposites. Progress in Polymer Science, 2022, 128, 101527.	11.8	21
5	Unusual High-Frequency Mechanical Properties of Polymer-Grafted Nanoparticle Melts. Physical Review Letters, 2022, 128, 187801.	2.9	9
6	Microbial nanocellulose biotextiles for a circular materials economy. Environmental Science Advances, 2022, 1, 276-284.	1.0	9
7	Long-Term Aging in Miscible Polymer Nanocomposites. Macromolecules, 2022, 55, 4502-4515.	2.2	9
8	In Situ Atomic Force Microscopy Tracking of Nanoparticle Migration in Semicrystalline Polymers. ACS Macro Letters, 2022, 11, 818-824.	2.3	2
9	Fracture Toughness of Polymer Interfaces Compatibilized with Nanoparticle Brushes. Macromolecules, 2022, 55, 4937-4946.	2.2	6
10	Organizing Nanoparticles in Semicrystalline Polymers by Modifying Particle Diffusivity. ACS Macro Letters, 2022, 11, 882-888.	2.3	2
11	Local Structure of Polymer-Grafted Nanoparticle Melts. ACS Nano, 2022, 16, 10404-10411.	7.3	4
12	Colloidal assembly by directional ice templating. Soft Matter, 2021, 17, 4098-4108.	1.2	6
13	Detecting bound polymer layers in attractive polymerâ€“nanoparticle hybrids. Nanoscale, 2021, 13, 12910-12915.	2.8	5
14	Direct Relationship between Dispersion and Crystallization Behavior in Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222 Td (oxid	2.2	16
15	Quantifying Nanoparticle Assembly States in a Polymer Matrix through Deep Learning. Macromolecules, 2021, 54, 3034-3040.	2.2	9
16	Gas Transport in Interacting Planar Brushes. ACS Polymers Au, 2021, 1, 39-46.	1.7	9
17	Using Nanofiller Assemblies to Control the Crystallization Kinetics of High-Density Polyethylene. Macromolecules, 2021, 54, 5673-5682.	2.2	14
18	Structure and Dynamics of Stockmayer Polymer Electrolyte. Macromolecules, 2021, 54, 7160-7173.	2.2	5

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19	Activated Transport in Polymer Grafted Nanoparticle Melts. Macromolecules, 2021, 54, 6968-6974.	2.2	12
20	Quantifying Nanoparticle Ordering Induced by Polymer Crystallization. ACS Nano, 2021, 15, 14430-14443.	7.3	8
21	Why is Recycling of Postconsumer Plastics so Challenging?. ACS Applied Polymer Materials, 2021, 3, 4325-4346.	2.0	120
22	Modeling polymer crystallisation induced by a moving heat sink. Soft Matter, 2021, 17, 2518-2529.	1.2	5
23	Polymer Spherulitic Growth Kinetics Mediated by Nanoparticle Assemblies. Macromolecules, 2021, 54, 1063-1072.	2.2	17
24	Boundary layer description of directional polymer crystallisation. Soft Matter, 2021, 17, 7755-7768.	1.2	3
25	Universal Polymeric-to-Colloidal Transition in Melts of Hairy Nanoparticles. ACS Nano, 2021, 15, 16697-16708.	7.3	23
26	On the Immobilized Polymer Fraction in Attractive Nanocomposites: T_g Gradient versus Interfacial Layer. Macromolecules, 2021, 54, 10289-10299.	2.2	20
27	Impact of Electrostatic Interactions on the Self-Assembly of Charge-Neutral Block Copolyelectrolytes. Macromolecules, 2020, 53, 548-557.	2.2	14
28	Structure of Polymer-Grafted Nanoparticle Melts. ACS Nano, 2020, 14, 15505-15516.	7.3	65
29	Assembly of Polymer-Grafted Nanoparticles in Polymer Matrices. ACS Nano, 2020, 14, 13491-13499.	7.3	16
30	Polymer-Grafted Nanoparticles. Journal of Applied Physics, 2020, 128, .	1.1	21
31	Tuning Selectivities in Gas Separation Membranes Based on Polymer-Grafted Nanoparticles. ACS Nano, 2020, 14, 17174-17183.	7.3	55
32	Compatibilizing Immiscible Polymer Blends with Sparsely Grafted Nanoparticles. Macromolecules, 2020, 53, 10330-10338.	2.2	32
33	Engineering Organization of DNA Nano-Chambers through Dimensionally Controlled and Multi-Sequence Encoded Differentiated Bonds. Journal of the American Chemical Society, 2020, 142, 17531-17542.	6.6	44
34	Structural Properties of Bound Layer in Polymerâ€“Nanoparticle Composites. Macromolecules, 2020, 53, 7845-7850.	2.2	19
35	Polymer Crystallization under Confinement by Well-Dispersed Nanoparticles. Macromolecules, 2020, 53, 10256-10266.	2.2	22
36	Combinatorial-Entropy-Driven Aggregation in DNA-Grafted Nanoparticles. ACS Nano, 2020, 14, 5628-5635.	7.3	15

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37	Designing exceptional gas-separation polymer membranes using machine learning. Science Advances, 2020, 6, eaaz4301.	4.7	132
38	Mechanisms of Directional Polymer Crystallization. ACS Macro Letters, 2020, 9, 1007-1012.	2.3	11
39	Polymer adsorption â€“ reversible or irreversible?. Soft Matter, 2020, 16, 5346-5347.	1.2	14
40	Ordered three-dimensional nanomaterials using DNA-prescribed and valence-controlled material voxels. Nature Materials, 2020, 19, 789-796.	13.3	172
41	Synthesis of polyisoprene, polybutadiene and Styrene Butadiene Rubber grafted silica nanoparticles by nitroxide-mediated polymerization. Polymer, 2020, 190, 122190.	1.8	20
42	Hydration Effects on the Permselectivity-Conductivity Trade-Off in Polymer Electrolytes. Macromolecules, 2020, 53, 1014-1023.	2.2	19
43	Critical Role of Processing on the Mechanical Properties of Cross-Linked Highly Loaded Nanocomposites. Macromolecules, 2019, 52, 5955-5962.	2.2	12
44	Accelerated Local Dynamics in Matrix-Free Polymer Grafted Nanoparticles. Physical Review Letters, 2019, 123, 158003.	2.9	24
45	Nanoparticle Organization by Growing Polyethylene Crystal Fronts. ACS Macro Letters, 2019, 8, 1341-1346.	2.3	23
46	Morphologies of Polyisoprene-Grafted Silica Nanoparticles in Model Elastomers. Macromolecules, 2019, 52, 7638-7645.	2.2	19
47	Exchange Lifetimes of the Bound Polymer Layer on Silica Nanoparticles. ACS Macro Letters, 2019, 8, 166-171.	2.3	50
48	Modeling gas transport in polymer-grafted nanoparticle membranes. Soft Matter, 2019, 15, 424-432.	1.2	22
49	Core-Size Dispersity Dominates the Self-Assembly of Polymer-Grafted Nanoparticles in Solution. Macromolecules, 2019, 52, 4888-4894.	2.2	11
50	Unusual packing of soft-shelled nanocubes. Science Advances, 2019, 5, eaaw2399.	4.7	50
51	High-Frequency Mechanical Behavior of Pure Polymer-Grafted Nanoparticle Constructs. ACS Macro Letters, 2019, 8, 294-298.	2.3	27
52	Reinforcement of polychloroprene by grafted silica nanoparticles. Polymer, 2019, 171, 96-105.	1.8	30
53	Polymer Grafted Nanoparticle Viscosity Modifiers. Macromolecular Chemistry and Physics, 2019, 220, 1800543.	1.1	13
54	Polyethylene Grafted Silica Nanoparticles Prepared via Surface-Initiated ROMP. ACS Macro Letters, 2019, 8, 228-232.	2.3	36

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55	Effects of Hairy Nanoparticles on Polymer Crystallization Kinetics. Macromolecules, 2019, 52, 9186-9198.	2.2	27
56	Corrigendum to â€œEffect of filler loading, geometry, dispersion and temperature on thermal conductivity of polymer nanocompositesâ€•[Polym. Test. 57 (2017) 101â€“106]. Polymer Testing, 2019, 73, 448.	2.3	2
57	Coarse-grained molecular dynamics simulation of activated penetrant transport in glassy polymers. Soft Matter, 2018, 14, 440-447.	1.2	31
58	Defining the optimal criterion for separating gases using polymeric membranes. Soft Matter, 2018, 14, 9847-9850.	1.2	1
59	Diminishing Interfacial Effects with Decreasing Nanoparticle Size in Polymer-Nanoparticle Composites. Physical Review Letters, 2018, 121, 207801.	2.9	53
60	Accurate estimation of the polymer coverage of hairy nanoparticles. Soft Matter, 2018, 14, 7906-7915.	1.2	7
61	Surface Fluctuations Dominate the Slow Glassy Dynamics of Polymer-Grafted Colloid Assemblies. ACS Central Science, 2018, 4, 1179-1184.	5.3	20
62	Do Very Small POSS Nanoparticles Perturb s-PMMA Chain Conformations?. Macromolecules, 2018, 51, 5278-5293.	2.2	21
63	Size-dependent penetrant diffusion in polymer glasses. Soft Matter, 2018, 14, 4226-4230.	1.2	22
64	Location of Imbibed Solvent in Polymer-Grafted Nanoparticle Membranes. ACS Macro Letters, 2018, 7, 1051-1055.	2.3	12
65	50th Anniversary Perspective: Are Polymer Nanocomposites Practical for Applications?. Macromolecules, 2017, 50, 714-731.	2.2	491
66	Using Timeâ€“Temperature Superposition for Determining Dielectric Loss in Functionalized Polyethylenes. ACS Macro Letters, 2017, 6, 200-204.	2.3	13
67	Directionally Interacting Spheres and Rods Form Ordered Phases. ACS Nano, 2017, 11, 4950-4959.	7.3	19
68	Role of Grafting Mechanism on the Polymer Coverage and Self-Assembly of Hairy Nanoparticles. ACS Nano, 2017, 11, 7028-7035.	7.3	61
69	Tunable Multiscale Nanoparticle Ordering by Polymer Crystallization. ACS Central Science, 2017, 3, 751-758.	5.3	60
70	Linear rheology of polymer nanocomposites with polymer-grafted nanoparticles. Polymer, 2017, 131, 104-110.	1.8	22
71	Polymer-Grafted Nanoparticle Membranes with Controllable Free Volume. Macromolecules, 2017, 50, 7111-7120.	2.2	88
72	Impact of the Distributions of Core Size and Grafting Density on the Self-Assembly of Polymer Grafted Nanoparticles. Macromolecules, 2017, 50, 7730-7738.	2.2	31

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73	Reentrant equilibrium disordering in nanoparticleâ€“polymer mixtures. Npj Computational Materials, 2017, 3, .	3.5	2
74	Molecular Simulations of Solute Transport in Polymer Melts. ACS Macro Letters, 2017, 6, 864-868.	2.3	21
75	Method of Measuring Salt Transference Numbers in Ion-Selective Membranes. Journal of the Electrochemical Society, 2017, 164, A2940-A2947.	1.3	10
76	Unexpected thermal annealing effects on the viscosity of polymer nanocomposites. Soft Matter, 2017, 13, 5341-5354.	1.2	16
77	Perspective: Outstanding theoretical questions in polymer-nanoparticle hybrids. Journal of Chemical Physics, 2017, 147, 020901.	1.2	154
78	Effect of filler loading, geometry, dispersion and temperature on thermal conductivity of polymer nanocomposites. Polymer Testing, 2017, 57, 101-106.	2.3	126
79	Critical role of morphology on the dielectric constant of semicrystalline polyolefins. Journal of Chemical Physics, 2016, 144, 234905.	1.2	14
80	Bound Layers â€œCloakâ€•Nanoparticles in Strongly Interacting Polymer Nanocomposites. ACS Nano, 2016, 10, 10960-10965.	7.3	96
81	Crazing of nanocomposites with polymer-tethered nanoparticles. Journal of Chemical Physics, 2016, 145, 094902.	1.2	27
82	Modeling and Theory: general discussion. Faraday Discussions, 2016, 186, 371-398.	1.6	1
83	Pattern-Directed Phase Separation of Polymer-Grafted Nanoparticles in a Homopolymer Matrix. Macromolecules, 2016, 49, 3965-3974.	2.2	21
84	Polymer Chain Behavior in Polymer Nanocomposites with Attractive Interactions. ACS Macro Letters, 2016, 5, 523-527.	2.3	63
85	Synthesis of Nanoparticle Assemblies: general discussion. Faraday Discussions, 2016, 186, 123-152.	1.6	0
86	Applications to Soft Matter: general discussion. Faraday Discussions, 2016, 186, 503-527.	1.6	1
87	Advanced polymeric dielectrics for high energy density applications. Progress in Materials Science, 2016, 83, 236-269.	16.0	286
88	Role of block copolymer adsorption versus bimodal grafting on nanoparticle self-assembly in polymer nanocomposites. Soft Matter, 2016, 12, 7241-7247.	1.2	19
89	Network dynamics in nanofilled polymers. Nature Communications, 2016, 7, 11368.	5.8	180
90	Self-Assembly of Monodisperse versus Bidisperse Polymer-Grafted Nanoparticles. ACS Macro Letters, 2016, 5, 790-795.	2.3	40

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91	Design and discovery of materials guided by theory and computation. Npj Computational Materials, 2015, 1, .	3.5	33
92	Selective transformations between nanoparticle superlattices via the reprogramming of DNA-mediated interactions. Nature Materials, 2015, 14, 840-847.	13.3	126
93	Stability of Proteins on Hydrophilic Surfaces. Langmuir, 2015, 31, 1005-1010.	1.6	23
94	Dynamic Tuning of DNA-Nanoparticle Superlattices by Molecular Intercalation of Double Helix. Journal of the American Chemical Society, 2015, 137, 4030-4033.	6.6	48
95	Role of Filler Shape and Connectivity on the Viscoelastic Behavior in Polymer Nanocomposites. Macromolecules, 2015, 48, 5433-5438.	2.2	96
96	Quantitative analogy between polymer-grafted nanoparticles and patchy particles. Soft Matter, 2015, 11, 793-797.	1.2	36
97	Enhanced Glassy State Mechanical Properties of Polymer Nanocomposites via Supramolecular Interactions. Nano Letters, 2015, 15, 5465-5471.	4.5	54
98	Rouse mode analysis of chain relaxation in polymer nanocomposites. Soft Matter, 2015, 11, 4123-4132.	1.2	72
99	Mechanical Reinforcement of Polymer Nanocomposites from Percolation of a Nanoparticle Network. ACS Macro Letters, 2015, 4, 398-402.	2.3	189
100	Stoichiometric control of DNA-grafted colloid self-assembly. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4982-4987.	3.3	42
101	Tuning polymer architecture to manipulate the relative stability of different colloid crystal morphologies. Soft Matter, 2015, 11, 5146-5153.	1.2	13
102	Relative stability of the FCC and HCP polymorphs with interacting polymers. Soft Matter, 2015, 11, 280-289.	1.2	22
103	Fluctuation-driven anisotropy in effective pair interactions between nanoparticles: Thiolated gold nanoparticles in ethane. Journal of Chemical Physics, 2014, 141, 154904.	1.2	26
104	Self-assembly of polymer-grafted nanoparticles in thin films. Soft Matter, 2014, 10, 786-794.	1.2	72
105	Stabilizing colloidal crystals by leveraging void distributions. Nature Communications, 2014, 5, 4472.	5.8	50
106	Blockâ€Copolymerâ€Mediated Nanoparticle Dispersion and Assembly in Polymer Nanocomposites. Advanced Materials, 2014, 26, 4031-4036.	11.1	49
107	Nanoparticle Diffusion in Polymer Nanocomposites. Physical Review Letters, 2014, 112, 108301.	2.9	157
108	Controlling the Thermomechanical Behavior of Nanoparticle/Polymer Films. ACS Nano, 2014, 8, 8163-8173.	7.3	44

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109	Enhanced Polymeric Dielectrics through Incorporation of Hydroxyl Groups. Macromolecules, 2014, 47, 1122-1129.	2.2	43
110	Surface-Mediated Protein Disaggregation. Langmuir, 2014, 30, 3507-3512.	1.6	7
111	Segmental Dynamics of Polymer Melts with Spherical Nanoparticles. ACS Macro Letters, 2014, 3, 773-777.	2.3	128
112	Rational design of all organic polymer dielectrics. Nature Communications, 2014, 5, 4845.	5.8	259
113	Role of Casting Solvent on Nanoparticle Dispersion in Polymer Nanocomposites. Macromolecules, 2014, 47, 5246-5255.	2.2	109
114	Structure and Dynamics of Octamethyl-POSS Nanoparticles. Journal of Physical Chemistry C, 2014, 118, 5579-5592.	1.5	27
115	Rouse Mode Analysis of Chain Relaxation in Homopolymer Melts. Macromolecules, 2014, 47, 6925-6931.	2.2	54
116	Designing DNA-grafted particles that self-assemble into desired crystalline structures using the genetic algorithm. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18431-18435.	3.3	52
117	Reducing Strain and Fracture of Electrophoretically Deposited CdSe Nanocrystal Films. II. Postdeposition Infusion of Monomers. Journal of Physical Chemistry B, 2013, 117, 1544-1549.	1.2	2
118	Bound Polymer Layer in Nanocomposites. ACS Macro Letters, 2013, 2, 371-374.	2.3	151
119	Nanocomposites with Polymer Grafted Nanoparticles. Macromolecules, 2013, 46, 3199-3214.	2.2	660
120	Simulating the miscibility of nanoparticles and polymer melts. Soft Matter, 2013, 9, 5417.	1.2	46
121	Fluctuation-Driven Anisotropic Assembly in Nanoscale Systems. Nano Letters, 2013, 13, 2732-2737.	4.5	57
122	Dispersing Grafted Nanoparticle Assemblies into Polymer Melts through Flow Fields. ACS Macro Letters, 2013, 2, 1051-1055.	2.3	32
123	Stability of Proteins Inside a Hydrophobic Cavity. Langmuir, 2013, 29, 8922-8928.	1.6	27
124	Reducing Strain and Fracture of Electrophoretically Deposited CdSe Nanocrystal Films. I. Postdeposition Infusion of Capping Ligands. Journal of Physical Chemistry B, 2013, 117, 1537-1543.	1.2	9
125	Dielectric permittivity enhancement in hydroxyl functionalized polyolefins via cooperative interactions with water. Applied Physics Letters, 2013, 102, 152901.	1.5	11
126	Effective interactions between grafted nanoparticles in a polymer matrix. Soft Matter, 2012, 8, 5002.	1.2	104

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127	Universal Viscosity Behavior of Polymer Nanocomposites. Physical Review Letters, 2012, 109, 198301.	2.9	123
128	Glass Transitions in Highly Attractive Highly Filled Polymer Nanocomposites. Macromolecules, 2012, 45, 1131-1135.	2.2	128
129	Mechanical Properties of Thin Glassy Polymer Films Filled with Spherical Polymer-Grafted Nanoparticles. Nano Letters, 2012, 12, 3909-3914.	4.5	131
130	Effect of thermal stability on protein adsorption to silica using homologous aldoâ€keto reductases. Protein Science, 2012, 21, 1113-1125.	3.1	8
131	Structure and Dynamics of Polymer Nanocomposites Involving Chain-Grafted Spherical Nanoparticles. Neutron Scattering Applications and Techniques, 2012, , 349-366.	0.2	9
132	Self-Assembled Superstructures of Polymer-Grafted Nanoparticles: Effects of Particle Shape and Matrix Polymer. Journal of Physical Chemistry C, 2011, 115, 5566-5577.	1.5	54
133	Polymer-Grafted-Nanoparticle Surfactants. Nano Letters, 2011, 11, 4569-4573.	4.5	68
134	Reversibility of the Adsorption of Lysozyme on Silica. Langmuir, 2011, 27, 11873-11882.	1.6	52
135	Mechanical Reinforcement in Polymer Melts Filled with Polymer Grafted Nanoparticles. Macromolecules, 2011, 44, 7473-7477.	2.2	180
136	Focusing Nanocrystal Size Distributions via Production Control. Nano Letters, 2011, 11, 1976-1980.	4.5	86
137	End grafted polymernanoparticles in a polymeric matrix: Effect of coverage and curvature. Soft Matter, 2011, 7, 1418-1425.	1.2	109
138	Gelation in semiflexible polymers. Journal of Chemical Physics, 2011, 134, 174902.	1.2	7
139	Nanocomposites: Structure, Phase Behavior, and Properties. Annual Review of Chemical and Biomolecular Engineering, 2010, 1, 37-58.	3.3	424
140	Conformational Transitions of Adsorbed Proteins on Surfaces of Varying Polarity. Langmuir, 2010, 26, 10803-10811.	1.6	139
141	Thermal and Structural Stability of Adsorbed Proteins. Biophysical Journal, 2010, 99, 1157-1165.	0.2	32
142	Controlling DNA Adsorption and Diffusion on Lipid Bilayers by the Formation of Lipid Domains. Langmuir, 2010, 26, 397-401.	1.6	5
143	Conformational Transitions of Spherical Polymer Brushes: Synthesis, Characterization, and Theory. Macromolecules, 2010, 43, 1564-1570.	2.2	243
144	Segmental Dynamics in PMMA-Grafted Nanoparticle Composites. Macromolecules, 2010, 43, 8275-8281.	2.2	100

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145	â€œGel-likeâ€•Mechanical Reinforcement in Polymer Nanocomposite Melts. Macromolecules, 2010, 43, 1003-1010.	2.2	209
146	Immobilized Polymer Layers on Spherical Nanoparticles. Macromolecules, 2010, 43, 3415-3421.	2.2	244
147	Growth Mechanism of Cadmium Sulfide Nanocrystals. Journal of Physical Chemistry Letters, 2010, 1, 304-308.	2.1	14
148	Universal two-step crystallization of DNA-functionalized nanoparticles. Soft Matter, 2010, 6, 6130.	1.2	32
149	Anisotropic self-assembly of spherical polymer-grafted nanoparticles. Nature Materials, 2009, 8, 354-359.	13.3	925
150	Stability of Tethered Proteins. Langmuir, 2009, 25, 4998-5005.	1.6	11
151	Polymer Crystallization in Nanocomposites: Spatial Reorganization of Nanoparticles. Macromolecules, 2009, 42, 5741-5744.	2.2	70
152	Enhancing Protein Stability by Adsorption onto Raftlike Lipid Domains. Journal of the American Chemical Society, 2009, 131, 7107-7111.	6.6	21
153	Modeling the anisotropic self-assembly of spherical polymer-grafted nanoparticles. Journal of Chemical Physics, 2009, 131, 221102.	1.2	111
154	Solvent-mediated pathways to gelation and phase separation in suspensions of grafted nanoparticles. Soft Matter, 2009, 5, 4256.	1.2	16
155	Meanâ€field theoretical analysis of brushâ€coated nanoparticle dispersion in polymer matrices. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 351-358.	2.4	109
156	Network Effects on the Nonlinear Rheology of Polymer Nanocomposites. Macromolecules, 2008, 41, 5988-5991.	2.2	37
157	Quantitatively Modeling the Equilibrium Properties of Thiol-Decorated Gold Nanoparticles. Langmuir, 2008, 24, 8448-8451.	1.6	15
158	Phase behavior of semiflexible polymer chains. Journal of Chemical Physics, 2008, 128, 124908.	1.2	15
159	Finite size effects on locating conformational transitions for macromolecules. Journal of Chemical Physics, 2008, 129, 134901.	1.2	10
160	Nonequilibrium Accumulation of Surface Species and Triboelectric Charging in Single Component Particulate Systems. Physical Review Letters, 2008, 100, 188305.	2.9	98
161	Designed Interfaces in Polymer Nanocomposites: A Fundamental Viewpoint. MRS Bulletin, 2007, 32, 335-340.	1.7	234
162	Chain Conformations and Bound-Layer Correlations in Polymer Nanocomposites. Physical Review Letters, 2007, 98, 128302.	2.9	129

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163	Chapter 4 Multiscale modeling of the synthesis of quantum nanodots and their arrays. Theoretical and Computational Chemistry, 2007, 18, 85-99.	0.2	0
164	The Role of Intefacial Diffuseness on Surface Segregation From Polymer Blends. Soft Materials, 2007, 5, 75-85.	0.8	0
165	Modeling Diffusion of Adsorbed Polymer with Explicit Solvent. Physical Review Letters, 2007, 98, 218301.	2.9	46
166	Dynamics of Miscible Polymer Blends:â€‰ Role of Concentration Fluctuations on Characteristic Segmental Relaxation Times. Macromolecules, 2007, 40, 5759-5766.	2.2	35
167	Dynamics of Miscible Polymer Blends:â€‰ Predicting the Dielectric Response. Macromolecules, 2007, 40, 5767-5775.	2.2	48
168	Computer Simulations of Ionomer Self-Assembly and Dynamics. Macromolecules, 2007, 40, 4113-4118.	2.2	34
169	Molecular Underpinnings of the Mechanical Reinforcement in Polymer Nanocomposites. Macromolecules, 2007, 40, 4059-4067.	2.2	101
170	Nanostructural features in silicaâ€“polyvinyl acetate nanocomposites characterized by small-angle scattering. Polymer, 2007, 48, 5734-5741.	1.8	17
171	Influence of stereoerrors on the formation of helices during early stage crystallization of isotactic polyproyplene. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 3349-3360.	2.4	6
172	Lipid Mobility Controls the Diffusion of Small Biopolymer Adsorbates. Langmuir, 2006, 22, 6750-6753.	1.6	5
173	Controlling the thermomechanical properties of polymer nanocomposites by tailoring the polymer-particle interface. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 2944-2950.	2.4	184
174	Monte Carlo simulations of the crystallization of isotactic polypropylene. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 3453-3460.	2.4	14
175	Computer simulations of the conformations of strongly adsorbed chains at the solidâ€“liquid interface. Polymer, 2006, 47, 722-727.	1.8	19
176	Do Inverse Monte Carlo Algorithms Yield Thermodynamically Consistent Interaction Potentials?. Industrial & Engineering Chemistry Research, 2006, 45, 5614-5618.	1.8	48
177	Nature of the breakdown in the Stokes-Einstein relationship in a hard sphere fluid. Journal of Chemical Physics, 2006, 124, 214501.	1.2	166
178	Analysis of uncertainties in polymer viscoelastic properties obtained from equilibrium computer simulations. Journal of Chemical Physics, 2006, 124, 144909.	1.2	10
179	Viscoelastic Properties of Polymer Melts from Equilibrium Molecular Dynamics Simulations. Macromolecules, 2005, 38, 650-653.	2.2	76
180	Quantitative equivalence between polymer nanocomposites and thin polymer films. Nature Materials, 2005, 4, 693-698.	13.3	656

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181	Direct determination of phase behavior of square-well fluids. Journal of Chemical Physics, 2005, 123, 174505.	1.2	94
182	Novel Scaling Laws for Band Gaps of Quantum Dots. Journal of Computational and Theoretical Nanoscience, 2005, 2, 469-472.	0.4	8
183	Segmental Dynamics of Head-to-Head Polypropylene and Polyisobutylene in Their Blend and Pure Components. Macromolecules, 2005, 38, 7721-7729.	2.2	58
184	Lattice Monte Carlo Simulations of Chain Conformations in Polymer Nanocomposites. Macromolecules, 2005, 38, 4495-4500.	2.2	103
185	Equilibrium Phase Behavior of Polybutadiene/Polyisoprene Films:Â Binodals and Spinodals. Macromolecules, 2005, 38, 5158-5169.	2.2	3
186	Molecular dynamics simulations of polymer transport in nanocomposites. Journal of Chemical Physics, 2005, 122, 134910.	1.2	172
187	Mesoscale model of polymer melt structure: Self-consistent mapping of molecular correlations to coarse-grained potentials. Journal of Chemical Physics, 2005, 122, 104908.	1.2	60
188	Multiscale Modeling of the Surfactant Mediated Synthesis and Supramolecular Assembly of Cobalt Nanodots. Physical Review Letters, 2004, 93, 188301.	2.9	19
189	Modeling diffusion in miscible polymer blend films. Journal of Chemical Physics, 2004, 121, 546.	1.2	4
190	Effect of the Hydrophilic Size on the Structural Phases of Aqueous Nonionic Gemini Surfactant Solutions. Langmuir, 2004, 20, 9061-9068.	1.6	31
191	Phase Behavior of Ultrathin Polymer Mixtures. Macromolecules, 2004, 37, 6676-6679.	2.2	11
192	Do â€œNonequilibriumâ€•Effects Control Strong Surface Segregation from Polymer Blends?. Macromolecules, 2004, 37, 9-12.	2.2	12
193	Miscible Polymer Blend Dynamics:Â Double Reptation Predictions of Linear Viscoelasticity in Model Blends of Polyisoprene and Poly(vinyl ethylene). Macromolecules, 2004, 37, 6994-7000.	2.2	42
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