

Sanat K Kumar

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

253
papers

14,743
citations

64
h-index

113
g-index

273
ext. papers

16,206
ext. citations

7.1
avg, IF

6.73
L-index

#	Paper	IF	Citations
253	Modeling Thermal Welding of Semicrystalline Polymers. <i>Macromolecules</i> , 2022 , 55, 1719-1725	5.5	1
252	Crystallization kinetics and nanoparticle ordering in semicrystalline polymer nanocomposites. <i>Progress in Polymer Science</i> , 2022 , 128, 101527	29.6	1
251	Unusual High-Frequency Mechanical Properties of Polymer-Grafted Nanoparticle Melts.. <i>Physical Review Letters</i> , 2022 , 128, 187801	7.4	0
250	Controlling toughness of polymer-grafted nanoparticle composites for impact mitigation.. <i>Soft Matter</i> , 2021 ,	3.6	3
249	Universal Polymeric-to-Colloidal Transition in Melts of Hairy Nanoparticles. <i>ACS Nano</i> , 2021 , 15, 16697-16708	16.7	8
248	Quantifying Nanoparticle Assembly States in a Polymer Matrix through Deep Learning. <i>Macromolecules</i> , 2021 , 54, 3034-3040	5.5	3
247	Gas Transport in Interacting Planar Brushes.. <i>ACS Polymers Au</i> , 2021 , 1, 39-46		5
246	Using Nanofiller Assemblies to Control the Crystallization Kinetics of High-Density Polyethylene. <i>Macromolecules</i> , 2021 , 54, 5673-5682	5.5	3
245	Structure and Dynamics of Stockmayer Polymer Electrolyte. <i>Macromolecules</i> , 2021 , 54, 7160-7173	5.5	0
244	Colloidal assembly by directional ice templating. <i>Soft Matter</i> , 2021 , 17, 4098-4108	3.6	2
243	Detecting bound polymer layers in attractive polymer-nanoparticle hybrids. <i>Nanoscale</i> , 2021 , 13, 12910-12915	12.9	1
242	Direct Relationship between Dispersion and Crystallization Behavior in Poly(ethylene oxide)/Poly(ethylene glycol)-g-Silica Nanocomposites. <i>Macromolecules</i> , 2021 , 54, 1870-1880	5.5	5
241	Activated Transport in Polymer Grafted Nanoparticle Melts. <i>Macromolecules</i> , 2021 , 54, 6968-6974	5.5	2
240	Quantifying Nanoparticle Ordering Induced by Polymer Crystallization. <i>ACS Nano</i> , 2021 , 15, 14430-14443	16.7	3
239	Why is Recycling of Postconsumer Plastics so Challenging?. <i>ACS Applied Polymer Materials</i> , 2021 , 3, 4325-4346	4.3	26
238	Modeling polymer crystallisation induced by a moving heat sink. <i>Soft Matter</i> , 2021 , 17, 2518-2529	3.6	3
237	Polymer Spherulitic Growth Kinetics Mediated by Nanoparticle Assemblies. <i>Macromolecules</i> , 2021 , 54, 1063-1072	5.5	9

236	Boundary layer description of directional polymer crystallisation. <i>Soft Matter</i> , 2021 , 17, 7755-7768	3.6	1
235	Polymer Crystallization under Confinement by Well-Dispersed Nanoparticles. <i>Macromolecules</i> , 2020 , 53, 10256-10266	5.5	11
234	Combinatorial-Entropy-Driven Aggregation in DNA-Grafted Nanoparticles. <i>ACS Nano</i> , 2020 , 14, 5628-5636	16.7	8
233	Designing exceptional gas-separation polymer membranes using machine learning. <i>Science Advances</i> , 2020 , 6, eaaz4301	14.3	43
232	Mechanisms of Directional Polymer Crystallization. <i>ACS Macro Letters</i> , 2020 , 9, 1007-1012	6.6	5
231	Ordered three-dimensional nanomaterials using DNA-prescribed and valence-controlled material voxels. <i>Nature Materials</i> , 2020 , 19, 789-796	27	82
230	Synthesis of polyisoprene, polybutadiene and Styrene Butadiene Rubber grafted silica nanoparticles by nitroxide-mediated polymerization. <i>Polymer</i> , 2020 , 190, 122190	3.9	12
229	Hydration Effects on the Permselectivity-Conductivity Trade-Off in Polymer Electrolytes. <i>Macromolecules</i> , 2020 , 53, 1014-1023	5.5	9
228	Impact of Electrostatic Interactions on the Self-Assembly of Charge-Neutral Block Copolyelectrolytes. <i>Macromolecules</i> , 2020 , 53, 548-557	5.5	10
227	Structure of Polymer-Grafted Nanoparticle Melts. <i>ACS Nano</i> , 2020 , 14, 15505-15516	16.7	30
226	Assembly of Polymer-Grafted Nanoparticles in Polymer Matrices. <i>ACS Nano</i> , 2020 , 14, 13491-13499	16.7	7
225	Tuning Selectivities in Gas Separation Membranes Based on Polymer-Grafted Nanoparticles. <i>ACS Nano</i> , 2020 ,	16.7	24
224	Compatibilizing Immiscible Polymer Blends with Sparsely Grafted Nanoparticles. <i>Macromolecules</i> , 2020 , 53, 10330-10338	5.5	13
223	Engineering Organization of DNA Nano-Chambers through Dimensionally Controlled and Multi-Sequence Encoded Differentiated Bonds. <i>Journal of the American Chemical Society</i> , 2020 , 142, 17531-17542	16.4	29
222	Structural Properties of Bound Layer in Polymer-Nanoparticle Composites. <i>Macromolecules</i> , 2020 , 53, 7845-7850	5.5	13
221	Nanoparticle Organization by Growing Polyethylene Crystal Fronts. <i>ACS Macro Letters</i> , 2019 , 8, 1341-1346	16.7	19
220	Morphologies of Polyisoprene-Grafted Silica Nanoparticles in Model Elastomers. <i>Macromolecules</i> , 2019 , 52, 7638-7645	5.5	11
219	Exchange Lifetimes of the Bound Polymer Layer on Silica Nanoparticles. <i>ACS Macro Letters</i> , 2019 , 8, 166-171	6.7	32

218	Modeling gas transport in polymer-grafted nanoparticle membranes. <i>Soft Matter</i> , 2019 , 15, 424-432	3.6	13
217	Core-Size Dispersity Dominates the Self-Assembly of Polymer-Grafted Nanoparticles in Solution. <i>Macromolecules</i> , 2019 , 52, 4888-4894	5.5	7
216	Unusual packing of soft-shelled nanocubes. <i>Science Advances</i> , 2019 , 5, eaaw2399	14.3	25
215	High-Frequency Mechanical Behavior of Pure Polymer-Grafted Nanoparticle Constructs. <i>ACS Macro Letters</i> , 2019 , 8, 294-298	6.6	20
214	Reinforcement of polychloroprene by grafted silica nanoparticles. <i>Polymer</i> , 2019 , 171, 96-105	3.9	18
213	Polymer Grafted Nanoparticle Viscosity Modifiers. <i>Macromolecular Chemistry and Physics</i> , 2019 , 220, 1800543	2.6	9
212	Polyethylene Grafted Silica Nanoparticles Prepared via Surface-Initiated ROMP. <i>ACS Macro Letters</i> , 2019 , 8, 228-232	6.6	23
211	Critical Role of Processing on the Mechanical Properties of Cross-Linked Highly Loaded Nanocomposites. <i>Macromolecules</i> , 2019 , 52, 5955-5962	5.5	8
210	Accelerated Local Dynamics in Matrix-Free Polymer Grafted Nanoparticles. <i>Physical Review Letters</i> , 2019 , 123, 158003	7.4	14
209	Effects of Hairy Nanoparticles on Polymer Crystallization Kinetics. <i>Macromolecules</i> , 2019 , 52, 9186-9198	5.5	19
208	Do Very Small POSS Nanoparticles Perturb s-PMMA Chain Conformations?. <i>Macromolecules</i> , 2018 , 51, 5278-5293	5.5	14
207	Size-dependent penetrant diffusion in polymer glasses. <i>Soft Matter</i> , 2018 , 14, 4226-4230	3.6	15
206	Location of Imbibed Solvent in Polymer-Grafted Nanoparticle Membranes. <i>ACS Macro Letters</i> , 2018 , 7, 1051-1055	6.6	9
205	Coarse-grained molecular dynamics simulation of activated penetrant transport in glassy polymers. <i>Soft Matter</i> , 2018 , 14, 440-447	3.6	25
204	Defining the optimal criterion for separating gases using polymeric membranes. <i>Soft Matter</i> , 2018 , 14, 9847-9850	3.6	1
203	Diminishing Interfacial Effects with Decreasing Nanoparticle Size in Polymer-Nanoparticle Composites. <i>Physical Review Letters</i> , 2018 , 121, 207801	7.4	35
202	Accurate estimation of the polymer coverage of hairy nanoparticles. <i>Soft Matter</i> , 2018 , 14, 7906-7915	3.6	4
201	Surface Fluctuations Dominate the Slow Glassy Dynamics of Polymer-Grafted Colloid Assemblies. <i>ACS Central Science</i> , 2018 , 4, 1179-1184	16.8	15

200	50th Anniversary Perspective: Are Polymer Nanocomposites Practical for Applications?. <i>Macromolecules</i> , 2017 , 50, 714-731	5.5	375
199	Using Time-Temperature Superposition for Determining Dielectric Loss in Functionalized Polyethylenes. <i>ACS Macro Letters</i> , 2017 , 6, 200-204	6.6	9
198	Directionally Interacting Spheres and Rods Form Ordered Phases. <i>ACS Nano</i> , 2017 , 11, 4950-4959	16.7	17
197	Role of Grafting Mechanism on the Polymer Coverage and Self-Assembly of Hairy Nanoparticles. <i>ACS Nano</i> , 2017 , 11, 7028-7035	16.7	51
196	Tunable Multiscale Nanoparticle Ordering by Polymer Crystallization. <i>ACS Central Science</i> , 2017 , 3, 751-758	16.8	44
195	Linear rheology of polymer nanocomposites with polymer-grafted nanoparticles. <i>Polymer</i> , 2017 , 131, 104-110	3.9	15
194	Polymer-Grafted Nanoparticle Membranes with Controllable Free Volume. <i>Macromolecules</i> , 2017 , 50, 7111-7120	5.5	64
193	Impact of the Distributions of Core Size and Grafting Density on the Self-Assembly of Polymer Grafted Nanoparticles. <i>Macromolecules</i> , 2017 , 50, 7730-7738	5.5	27
192	Molecular Simulations of Solute Transport in Polymer Melts. <i>ACS Macro Letters</i> , 2017 , 6, 864-868	6.6	15
191	Method of Measuring Salt Transference Numbers in Ion-Selective Membranes. <i>Journal of the Electrochemical Society</i> , 2017 , 164, A2940-A2947	3.9	10
190	Unexpected thermal annealing effects on the viscosity of polymer nanocomposites. <i>Soft Matter</i> , 2017 , 13, 5341-5354	3.6	11
189	Perspective: Outstanding theoretical questions in polymer-nanoparticle hybrids. <i>Journal of Chemical Physics</i> , 2017 , 147, 020901	3.9	118
188	Effect of filler loading, geometry, dispersion and temperature on thermal conductivity of polymer nanocomposites. <i>Polymer Testing</i> , 2017 , 57, 101-106	4.5	96
187	Role of block copolymer adsorption versus bimodal grafting on nanoparticle self-assembly in polymer nanocomposites. <i>Soft Matter</i> , 2016 , 12, 7241-7	3.6	17
186	Network dynamics in nanofilled polymers. <i>Nature Communications</i> , 2016 , 7, 11368	17.4	131
185	Self-Assembly of Monodisperse versus Bidisperse Polymer-Grafted Nanoparticles. <i>ACS Macro Letters</i> , 2016 , 5, 790-795	6.6	36
184	Critical role of morphology on the dielectric constant of semicrystalline polyolefins. <i>Journal of Chemical Physics</i> , 2016 , 144, 234905	3.9	10
183	Bound Layers "Cloak" Nanoparticles in Strongly Interacting Polymer Nanocomposites. <i>ACS Nano</i> , 2016 , 10, 10960-10965	16.7	79

182	Crazing of nanocomposites with polymer-tethered nanoparticles. <i>Journal of Chemical Physics</i> , 2016 , 145, 094902	3.9	21
181	Confined Pattern-Directed Assembly of Polymer-Grafted Nanoparticles in a Phase Separating Blend with a Homopolymer Matrix. <i>Macromolecules</i> , 2016 , 49, 3965-3974	5.5	17
180	Polymer Chain Behavior in Polymer Nanocomposites with Attractive Interactions. <i>ACS Macro Letters</i> , 2016 , 5, 523-527	6.6	55
179	Synthesis of Nanoparticle Assemblies: general discussion. <i>Faraday Discussions</i> , 2016 , 186, 123-52	3.6	
178	Advanced polymeric dielectrics for high energy density applications. <i>Progress in Materials Science</i> , 2016 , 83, 236-269	42.2	193
177	Dynamic tuning of DNA-nanoparticle superlattices by molecular intercalation of double helix. <i>Journal of the American Chemical Society</i> , 2015 , 137, 4030-3	16.4	42
176	Role of Filler Shape and Connectivity on the Viscoelastic Behavior in Polymer Nanocomposites. <i>Macromolecules</i> , 2015 , 48, 5433-5438	5.5	67
175	Quantitative analogy between polymer-grafted nanoparticles and patchy particles. <i>Soft Matter</i> , 2015 , 11, 793-7	3.6	31
174	Enhanced Glassy State Mechanical Properties of Polymer Nanocomposites via Supramolecular Interactions. <i>Nano Letters</i> , 2015 , 15, 5465-71	11.5	46
173	Rouse mode analysis of chain relaxation in polymer nanocomposites. <i>Soft Matter</i> , 2015 , 11, 4123-32	3.6	63
172	Mechanical Reinforcement of Polymer Nanocomposites from Percolation of a Nanoparticle Network. <i>ACS Macro Letters</i> , 2015 , 4, 398-402	6.6	142
171	Stoichiometric control of DNA-grafted colloid self-assembly. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 4982-7	11.5	35
170	Tuning polymer architecture to manipulate the relative stability of different colloid crystal morphologies. <i>Soft Matter</i> , 2015 , 11, 5146-53	3.6	10
169	Relative stability of the FCC and HCP polymorphs with interacting polymers. <i>Soft Matter</i> , 2015 , 11, 280-9	3.6	15
168	Selective transformations between nanoparticle superlattices via the reprogramming of DNA-mediated interactions. <i>Nature Materials</i> , 2015 , 14, 840-7	27	100
167	Stability of proteins on hydrophilic surfaces. <i>Langmuir</i> , 2015 , 31, 1005-10	4	20
166	Self-assembly of polymer-grafted nanoparticles in thin films. <i>Soft Matter</i> , 2014 , 10, 786-94	3.6	61
165	Stabilizing colloidal crystals by leveraging void distributions. <i>Nature Communications</i> , 2014 , 5, 4472	17.4	42

164	Block-copolymer-mediated nanoparticle dispersion and assembly in polymer nanocomposites. <i>Advanced Materials</i> , 2014 , 26, 4031-6	24	43
163	Nanoparticle diffusion in polymer nanocomposites. <i>Physical Review Letters</i> , 2014 , 112, 108301	7.4	130
162	Controlling the thermomechanical behavior of nanoparticle/polymer films. <i>ACS Nano</i> , 2014 , 8, 8163-73	16.7	38
161	Enhanced Polymeric Dielectrics through Incorporation of Hydroxyl Groups. <i>Macromolecules</i> , 2014 , 47, 1122-1129	5.5	33
160	Surface-mediated protein disaggregation. <i>Langmuir</i> , 2014 , 30, 3507-12	4	6
159	Segmental Dynamics of Polymer Melts with Spherical Nanoparticles.. <i>ACS Macro Letters</i> , 2014 , 3, 773-776.6		113
158	Rational design of all organic polymer dielectrics. <i>Nature Communications</i> , 2014 , 5, 4845	17.4	206
157	Role of Casting Solvent on Nanoparticle Dispersion in Polymer Nanocomposites. <i>Macromolecules</i> , 2014 , 47, 5246-5255	5.5	82
156	Structure and Dynamics of Octamethyl-POSS Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 5579-5592	3.8	24
155	Rouse Mode Analysis of Chain Relaxation in Homopolymer Melts. <i>Macromolecules</i> , 2014 , 47, 6925-6931	5.5	39
154	Fluctuation-driven anisotropy in effective pair interactions between nanoparticles: thiolated gold nanoparticles in ethane. <i>Journal of Chemical Physics</i> , 2014 , 141, 154904	3.9	22
153	Designing DNA-grafted particles that self-assemble into desired crystalline structures using the genetic algorithm. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 18431-5	11.5	45
152	Reducing strain and fracture of electrophoretically deposited CdSe nanocrystal films. II. Postdeposition infusion of monomers. <i>Journal of Physical Chemistry B</i> , 2013 , 117, 1544-9	3.4	2
151	Bound Polymer Layer in Nanocomposites.. <i>ACS Macro Letters</i> , 2013 , 2, 371-374	6.6	121
150	Nanocomposites with Polymer Grafted Nanoparticles. <i>Macromolecules</i> , 2013 , 46, 3199-3214	5.5	570
149	Simulating the miscibility of nanoparticles and polymer melts. <i>Soft Matter</i> , 2013 , 9, 5417	3.6	40
148	Fluctuation-driven anisotropic assembly in nanoscale systems. <i>Nano Letters</i> , 2013 , 13, 2732-7	11.5	50
147	Dispersing Grafted Nanoparticle Assemblies into Polymer Melts through Flow Fields. <i>ACS Macro Letters</i> , 2013 , 2, 1051-1055	6.6	30

146	Stability of proteins inside a hydrophobic cavity. <i>Langmuir</i> , 2013 , 29, 8922-8	4	25
145	Reducing strain and fracture of electrophoretically deposited CdSe nanocrystal films. I. Postdeposition infusion of capping ligands. <i>Journal of Physical Chemistry B</i> , 2013 , 117, 1537-43	3.4	6
144	Dielectric permittivity enhancement in hydroxyl functionalized polyolefins via cooperative interactions with water. <i>Applied Physics Letters</i> , 2013 , 102, 152901	3.4	11
143	Effective interactions between grafted nanoparticles in a polymer matrix. <i>Soft Matter</i> , 2012 , 8, 5002	3.6	97
142	Universal viscosity behavior of polymer nanocomposites. <i>Physical Review Letters</i> , 2012 , 109, 198301	7.4	108
141	Glass Transitions in Highly Attractive Highly Filled Polymer Nanocomposites. <i>Macromolecules</i> , 2012 , 45, 1131-1135	5.5	116
140	Mechanical properties of thin glassy polymer films filled with spherical polymer-grafted nanoparticles. <i>Nano Letters</i> , 2012 , 12, 3909-14	11.5	108
139	Effect of thermal stability on protein adsorption to silica using homologous aldo-keto reductases. <i>Protein Science</i> , 2012 , 21, 1113-25	6.3	7
138	Structure and Dynamics of Polymer Nanocomposites Involving Chain-Grafted Spherical Nanoparticles. <i>Neutron Scattering Applications and Techniques</i> , 2012 , 349-366		8
137	Reversibility of the adsorption of lysozyme on silica. <i>Langmuir</i> , 2011 , 27, 11873-82	4	44
136	Mechanical Reinforcement in Polymer Melts Filled with Polymer Grafted Nanoparticles. <i>Macromolecules</i> , 2011 , 44, 7473-7477	5.5	145
135	Focusing nanocrystal size distributions via production control. <i>Nano Letters</i> , 2011 , 11, 1976-80	11.5	83
134	End grafted polymer nanoparticles in a polymeric matrix: Effect of coverage and curvature. <i>Soft Matter</i> , 2011 , 7, 1418-1425	3.6	102
133	Self-Assembled Superstructures of Polymer-Grafted Nanoparticles: Effects of Particle Shape and Matrix Polymer. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 5566-5577	3.8	53
132	Polymer-grafted-nanoparticle surfactants. <i>Nano Letters</i> , 2011 , 11, 4569-73	11.5	62
131	Gelation in semiflexible polymers. <i>Journal of Chemical Physics</i> , 2011 , 134, 174902	3.9	5
130	Conformational transitions of adsorbed proteins on surfaces of varying polarity. <i>Langmuir</i> , 2010 , 26, 10803-11	4	123
129	Thermal and structural stability of adsorbed proteins. <i>Biophysical Journal</i> , 2010 , 99, 1157-65	2.9	27

128	Controlling DNA adsorption and diffusion on lipid bilayers by the formation of lipid domains. <i>Langmuir</i> , 2010 , 26, 397-401	4	4
127	Conformational Transitions of Spherical Polymer Brushes: Synthesis, Characterization, and Theory. <i>Macromolecules</i> , 2010 , 43, 1564-1570	5.5	209
126	Segmental Dynamics in PMMA-Grafted Nanoparticle Composites. <i>Macromolecules</i> , 2010 , 43, 8275-8281	5.5	96
125	Gel-like Mechanical Reinforcement in Polymer Nanocomposite Melts. <i>Macromolecules</i> , 2010 , 43, 1003-1019	5.9	181
124	Immobilized Polymer Layers on Spherical Nanoparticles. <i>Macromolecules</i> , 2010 , 43, 3415-3421	5.5	225
123	Growth Mechanism of Cadmium Sulfide Nanocrystals. <i>Journal of Physical Chemistry Letters</i> , 2010 , 1, 304-308	8.8	13
122	Universal two-step crystallization of DNA-functionalized nanoparticles. <i>Soft Matter</i> , 2010 , 6, 6130	3.6	29
121	Nanocomposites: structure, phase behavior, and properties. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2010 , 1, 37-58	8.9	371
120	Anisotropic self-assembly of spherical polymer-grafted nanoparticles. <i>Nature Materials</i> , 2009 , 8, 354-9	27	820
119	Stability of tethered proteins. <i>Langmuir</i> , 2009 , 25, 4998-5005	4	10
118	Polymer Crystallization in Nanocomposites: Spatial Reorganization of Nanoparticles. <i>Macromolecules</i> , 2009 , 42, 5741-5744	5.5	65
117	Enhancing protein stability by adsorption onto raftlike lipid domains. <i>Journal of the American Chemical Society</i> , 2009 , 131, 7107-11	16.4	21
116	Modeling the anisotropic self-assembly of spherical polymer-grafted nanoparticles. <i>Journal of Chemical Physics</i> , 2009 , 131, 221102	3.9	101
115	Solvent-mediated pathways to gelation and phase separation in suspensions of grafted nanoparticles. <i>Soft Matter</i> , 2009 , 5, 4256	3.6	14
114	Network Effects on the Nonlinear Rheology of Polymer Nanocomposites. <i>Macromolecules</i> , 2008 , 41, 5988-5991	5.5	33
113	Quantitatively modeling the equilibrium properties of thiol-decorated gold nanoparticles. <i>Langmuir</i> , 2008 , 24, 8448-51	4	15
112	Phase behavior of semiflexible polymer chains. <i>Journal of Chemical Physics</i> , 2008 , 128, 124908	3.9	14
111	Finite size effects on locating conformational transitions for macromolecules. <i>Journal of Chemical Physics</i> , 2008 , 129, 134901	3.9	9

110	Nonequilibrium accumulation of surface species and triboelectric charging in single component particulate systems. <i>Physical Review Letters</i> , 2008 , 100, 188305	7.4	79
109	Mean-field theoretical analysis of brush-coated nanoparticle dispersion in polymer matrices. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2008 , 46, 351-358	2.6	102
108	Dynamics of Miscible Polymer Blends: Role of Concentration Fluctuations on Characteristic Segmental Relaxation Times. <i>Macromolecules</i> , 2007 , 40, 5759-5766	5.5	34
107	Dynamics of Miscible Polymer Blends: Predicting the Dielectric Response. <i>Macromolecules</i> , 2007 , 40, 5767-5775	5.5	42
106	Computer Simulations of Ionomer Self-Assembly and Dynamics. <i>Macromolecules</i> , 2007 , 40, 4113-4118	5.5	31
105	Molecular Underpinnings of the Mechanical Reinforcement in Polymer Nanocomposites. <i>Macromolecules</i> , 2007 , 40, 4059-4067	5.5	94
104	Nanostructural features in silica/polyvinyl acetate nanocomposites characterized by small-angle scattering. <i>Polymer</i> , 2007 , 48, 5734-5741	3.9	14
103	Influence of stereoerrors on the formation of helices during early stage crystallization of isotactic polypropylene. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2007 , 45, 3349-3360	2.6	5
102	Designed Interfaces in Polymer Nanocomposites: A Fundamental Viewpoint. <i>MRS Bulletin</i> , 2007 , 32, 335-340	3.4	207
101	Chain conformations and bound-layer correlations in polymer nanocomposites. <i>Physical Review Letters</i> , 2007 , 98, 128302	7.4	115
100	Chapter 4 Multiscale modeling of the synthesis of quantum nanodots and their arrays. <i>Theoretical and Computational Chemistry</i> , 2007 , 18, 85-99		
99	The Role of Intefacial Diffuseness on Surface Segregation From Polymer Blends. <i>Soft Materials</i> , 2007 , 5, 75-85	1.7	
98	Modeling diffusion of adsorbed polymer with explicit solvent. <i>Physical Review Letters</i> , 2007 , 98, 218301	7.4	45
97	Nature of the breakdown in the Stokes-Einstein relationship in a hard sphere fluid. <i>Journal of Chemical Physics</i> , 2006 , 124, 214501	3.9	150
96	Analysis of uncertainties in polymer viscoelastic properties obtained from equilibrium computer simulations. <i>Journal of Chemical Physics</i> , 2006 , 124, 144909	3.9	10
95	Lipid mobility controls the diffusion of small biopolymer adsorbates. <i>Langmuir</i> , 2006 , 22, 6750-3	4	5
94	Controlling the thermomechanical properties of polymer nanocomposites by tailoring the polymer/particle interface. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006 , 44, 2944-2950	2.6	173
93	Monte Carlo simulations of the crystallization of isotactic polypropylene. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006 , 44, 3453-3460	2.6	10

92	Computer simulations of the conformations of strongly adsorbed chains at the solid-liquid interface. <i>Polymer</i> , 2006 , 47, 722-727	3.9	18
91	Do Inverse Monte Carlo Algorithms Yield Thermodynamically Consistent Interaction Potentials?. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 5614-5618	3.9	45
90	Segmental Dynamics of Head-to-Head Polypropylene and Polyisobutylene in Their Blend and Pure Components. <i>Macromolecules</i> , 2005 , 38, 7721-7729	5.5	52
89	Lattice Monte Carlo Simulations of Chain Conformations in Polymer Nanocomposites. <i>Macromolecules</i> , 2005 , 38, 4495-4500	5.5	92
88	Equilibrium Phase Behavior of Polybutadiene/Polyisoprene Films: Binodals and Spinodals. <i>Macromolecules</i> , 2005 , 38, 5158-5169	5.5	3
87	Molecular dynamics simulations of polymer transport in nanocomposites. <i>Journal of Chemical Physics</i> , 2005 , 122, 134910	3.9	157
86	Mesoscale model of polymer melt structure: self-consistent mapping of molecular correlations to coarse-grained potentials. <i>Journal of Chemical Physics</i> , 2005 , 122, 104908	3.9	59
85	Viscoelastic Properties of Polymer Melts from Equilibrium Molecular Dynamics Simulations. <i>Macromolecules</i> , 2005 , 38, 650-653	5.5	63
84	Quantitative equivalence between polymer nanocomposites and thin polymer films. <i>Nature Materials</i> , 2005 , 4, 693-8	27	599
83	Direct determination of phase behavior of square-well fluids. <i>Journal of Chemical Physics</i> , 2005 , 123, 174505	3.9	89
82	Novel Scaling Laws for Band Gaps of Quantum Dots. <i>Journal of Computational and Theoretical Nanoscience</i> , 2005 , 2, 469-472	0.3	7
81	Multiscale modeling of the surfactant mediated synthesis and supramolecular assembly of cobalt nanodots. <i>Physical Review Letters</i> , 2004 , 93, 188301	7.4	16
80	Modeling diffusion in miscible polymer blend films. <i>Journal of Chemical Physics</i> , 2004 , 121, 546-53	3.9	4
79	Effect of the hydrophilic size on the structural phases of aqueous nonionic gemini surfactant solutions. <i>Langmuir</i> , 2004 , 20, 9061-8	4	27
78	Phase Behavior of Ultrathin Polymer Mixtures. <i>Macromolecules</i> , 2004 , 37, 6676-6679	5.5	10
77	Do Nonequilibrium Effects Control Strong Surface Segregation from Polymer Blends?. <i>Macromolecules</i> , 2004 , 37, 9-12	5.5	11
76	Miscible Polymer Blend Dynamics: Double Reptation Predictions of Linear Viscoelasticity in Model Blends of Polyisoprene and Poly(vinyl ethylene). <i>Macromolecules</i> , 2004 , 37, 6994-7000	5.5	39
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