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List of Publications by Year
in descending order

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126 papers	5,379 citations	109321 35 h-index	91884 69 g-index
131 all docs	131 docs citations	131 times ranked	5703 citing authors

#	Article	IF	Citations
1	Evolution of microscopic heterogeneity and dynamics in choline chloride-based deep eutectic solvents. Nature Communications, 2022, 13, 219.	12.8	42
2	Controlling the Morphology of PEDOT:PSS Blend Films with Pre-Deposition Solution Composition and Deposition Technique. ACS Applied Polymer Materials, 2022, 4, 36-43.	4.4	1
3	Microemulsions as Emerging Electrolytes: The Correlation of Structure to Electrochemical Response. ACS Applied Materials & Interfaces, 2022, 14, 20179-20189.	8.0	6
4	Incorporating crosslinks in fused filament fabrication: Molecular insight into post deposition reactions. Additive Manufacturing, 2021, 38, 101746.	3.0	5
5	Deep Eutectic Solvents: A Review of Fundamentals and Applications. Chemical Reviews, 2021, 121, 1232-1285.	47.7	1,334
6	Structure and Dispersion of Free and Grafted Polymer in Nanoparticle Organic Hybrid Materials-Based Solutions by Small-Angle Neutron Scattering. Journal of Physical Chemistry C, 2021, 125, 5327-5334.	3.1	10
7	Critical Role of the Interfacial Layer in Associating Polymers with Microphase Separation. Macromolecules, 2021, 54, 4246-4256.	4.8	22
8	Correlation of the Structure with Performance in MEH-PPV/dPS Thin Films Illuminated during Processing. ACS Applied Polymer Materials, 2021, 3, 3821-3830.	4.4	3
9	Decoupling Conductivity and Solubility in Electrolytes Using Microemulsions. Journal of the Electrochemical Society, 2021, 168, 080502.	2.9	7
10	X-ray and neutron scattering of polymers. , 2021, , 561-585.		0
11	Polymer Chain Diffusion in All-Polymer Nanocomposites: Confinement vs Chain Acceleration. Journal of Physical Chemistry C, 2020, 124, 18834-18839.	3.1	2
12	Electron Transfer in Microemulsion-Based Electrolytes. ACS Applied Materials & Interfaces, 2020, 12, 40213-40219.	8.0	22
13	Mechanism of Soft Nanoparticle Diffusion in Entangled Polymer Melts. Macromolecules, 2020, 53, 7580-7589.	4.8	9
14	Liquid Structure and Transport Properties of the Deep Eutectic Solvent Ethaline. Journal of Physical Chemistry B, 2020, 124, 5251-5264.	2.6	84
15	Investigating the Copolymerization of Ligands into Metalâ€“Organic Nanotubes Using Small-Angle Neutron Scattering: Implications for Nanostraws. ACS Applied Nano Materials, 2020, 3, 5605-5611.	5.0	4
16	Quantitative Evaluation of the Hierarchical Porosity in Polyimide Aerogels and Corresponding Solvated Gels. ACS Applied Materials & Interfaces, 2020, 12, 30457-30465.	8.0	18
17	The impact of nanoparticle softness on its tracer diffusion coefficient in all polymer nanocomposites. Journal of Applied Physics, 2020, 127, 074303.	2.5	12
18	Impact of Substrate Rigidity on the Structure of Multilayer Nanoscale ITO Films: Implications for Flexible Electronic Devices. ACS Applied Nano Materials, 2020, 3, 2383-2392.	5.0	2

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19	The interplay of thermodynamics and kinetics: imparting hierarchical control over film formation of self-stratified blends. Soft Matter, 2020, 16, 1287-1297.	2.7	3
20	Reactive Processing in Extrusion-Based 3D Printing to Improve Isotropy and Mechanical Properties. Macromolecules, 2019, 52, 6495-6501.	4.8	38
21	Relative Size of the Polymer and Nanoparticle Controls Polymer Diffusion in All-Polymer Nanocomposites. Macromolecules, 2019, 52, 2843-2852.	4.8	14
22	Improving Interlayer Adhesion in 3D Printing with Surface Segregating Additives: Improving the Isotropy of Acrylonitrileâ€“Butadieneâ€“Styrene Parts. ACS Applied Polymer Materials, 2019, 1, 876-884.	4.4	39
23	Role of compatibilizer in 3D printing of polymer blends. Additive Manufacturing, 2019, 27, 267-277.	3.0	23
24	Improving heat transfer in fused deposition modeling with graphene enhances inter filament bonding. Polymer Chemistry, 2019, 10, 5967-5978.	3.9	19
25	Ion Transport in Glassy Polymerized Ionic Liquids: Unraveling the Impact of the Molecular Structure. Macromolecules, 2019, 52, 88-95.	4.8	31
26	Design, synthesis, and characterization of lightly sulfonated multigraft acrylate-based copolymer superelastomers. RSC Advances, 2018, 8, 5090-5098.	3.6	4
27	Interlayer diffusion of surface segregating additives to improve the isotropy of fused deposition modeling products. Polymer, 2018, 152, 35-41.	3.8	71
28	Reinforcing 3D printed acrylonitrile butadiene styrene by impregnation of methacrylate resin and cellulose nanocrystal mixture: Structural effects and homogeneous properties. Materials and Design, 2018, 138, 62-70.	7.0	20
29	Effect of Solvent Quality and Monomer Water Solubility on Soft Nanoparticle Morphology. ACS Symposium Series, 2018, , 117-137.	0.5	0
30	Neutron scattering in the biological sciences: progress and prospects. Acta Crystallographica Section D: Structural Biology, 2018, 74, 1129-1168.	2.3	47
31	Elucidating the Kinetic and Thermodynamic Driving Forces in Polymer Blend Film Self-Stratification. Macromolecules, 2018, 51, 7836-7844.	4.8	8
32	The impact of radical loading and oxidation on the conformation of organic radical polymers by small angle neutron scattering. Journal of Materials Chemistry A, 2018, 6, 15659-15667.	10.3	13
33	Tough, Rapidly Swelling Thermoplastic Elastomer Hydrogels for Hemorrhage Control. Macromolecules, 2018, 51, 4705-4717.	4.8	13
34	Unraveling the Molecular Weight Dependence of Interfacial Interactions in Poly(2-vinylpyridine)/Silica Nanocomposites. ACS Macro Letters, 2017, 6, 68-72.	4.8	65
35	The role of incident light intensity, wavelength, and exposure time in the modification of conjugated polymer structure in solution. European Polymer Journal, 2017, 89, 272-280.	5.4	5
36	Diffusion of copolymers composed of monomers with drastically different friction factors in copolymer/homopolymer blends. Journal of Chemical Physics, 2017, 146, 054905.	3.0	1

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37	Structural, mechanical, and thermal properties of 3D printed Lâ€CNC/acrylonitrile butadiene styrene nanocomposites. Journal of Applied Polymer Science, 2017, 134, 45082.	2.6	26
38	Illumination alters the structure of gels formed from the model optoelectronic material P3HT. Polymer, 2017, 108, 313-321.	3.8	10
39	The effect of illumination on the depth profile of thermally annealed MEHâ€PPV/dPS blends. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 1142-1149.	2.1	6
40	The importance of solvent quality on the modification of conjugated polymer conformation and thermodynamics with illumination. Soft Matter, 2017, 13, 2773-2780.	2.7	14
41	Interfacial Properties of Polymer Nanocomposites: Role of Chain Rigidity and Dynamic Heterogeneity Length Scale. Macromolecules, 2017, 50, 2397-2406.	4.8	115
42	Investigations on the Phase Diagram and Interaction Parameter of Poly(styrene-b-1,3-cyclohexadiene) Copolymers. Macromolecules, 2017, 50, 2354-2363.	4.8	5
43	Big Effect of Small Nanoparticles: A Shift in Paradigm for Polymer Nanocomposites. ACS Nano, 2017, 11, 752-759.	14.6	177
44	The tracer diffusion coefficient of soft nanoparticles in a linear polymer matrix. RSC Advances, 2017, 7, 15574-15581.	3.6	14
45	The impact of solvent doping on the morphology and performance of spray-coated PEDOT:dPSS: A USANS and SANS study. Organic Electronics, 2017, 51, 86-93.	2.6	7
46	Resolving Hierarchical Structures in Carbon Nanotube Networks Using Small- and Ultrasmall-Angle Neutron Scattering. Journal of Physical Chemistry C, 2017, 121, 22442-22451.	3.1	8
47	Tunable synthetic control of soft polymeric nanoparticle morphology. Soft Matter, 2017, 13, 8849-8857.	2.7	15
48	Bimodal molecular weight samples improve the isotropy of 3D printed polymeric samples. Polymer, 2017, 122, 232-241.	3.8	75
49	Monitoring the Effects of Illumination on the Structure of Conjugated Polymer Gels Using Neutron Scattering. Journal of Visualized Experiments, 2017, , .	0.3	1
50	Diblock copolymers of polystyreneâ€bâ€poly(1,3â€cyclohexadiene) exhibiting unique threeâ€phase microdomain morphologies. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1564-1572.	2.1	5
51	Unraveling the Mechanism of Nanoscale Mechanical Reinforcement in Glassy Polymer Nanocomposites. Nano Letters, 2016, 16, 3630-3637.	9.1	142
52	Illumination of Conjugated Polymer in Solution Alters Its Conformation and Thermodynamics. Macromolecules, 2016, 49, 3490-3496.	4.8	19
53	Unexpected Molecular Weight Effect in Polymer Nanocomposites. Physical Review Letters, 2016, 116, 038302.	7.8	134
54	Controlling Interfacial Dynamics: Covalent Bonding versus Physical Adsorption in Polymer Nanocomposites. ACS Nano, 2016, 10, 6843-6852.	14.6	152

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55	Insights into the Morphology and Kinetics of Growth of Silver Metalâ€“Organic Nanotubes. Crystal Growth and Design, 2016, 16, 1395-1403.	3.0	11
56	Understanding the Impact of Poly(ethylene oxide) on the Assembly of Lignin in Solution toward Improved Carbon Fiber Production. ACS Applied Materials & Interfaces, 2016, 8, 3200-3207.	8.0	46
57	Rapid and Facile Formation of P3HT Organogels via Spin Coating: Tuning Functional Properties of Organic Electronic Thin Films. Advanced Functional Materials, 2015, 25, 5848-5857.	14.9	15
58	The impact of fullerenes on the ordering of polyacrylonitrile during nanocomposites formation. Polymer, 2015, 75, 134-140.	3.8	8
59	The impact of lignin source on its self-assembly in solution. RSC Advances, 2015, 5, 67258-67266.	3.6	42
60	Monitoring the dynamics of miscible P3HT:PCBM blends: A quasi elastic neutron scattering study of organic photovoltaic active layers. Polymer, 2015, 61, 155-162.	3.8	19
61	Gas expanded polymer process to anneal nanoparticle dispersion in thin films. Solar Energy Materials and Solar Cells, 2015, 140, 101-107.	6.2	4
62	InÂvivo oxidative degradation of polypropylene pelvic mesh. Biomaterials, 2015, 73, 131-141.	11.4	32
63	3D reconstruction of carbon nanotube networks from neutron scattering experiments. Nanotechnology, 2015, 26, 385704.	2.6	17
64	The Role of Nanoparticle Rigidity on the Diffusion of Linear Polystyrene in a Polymer Nanocomposite. Macromolecules, 2015, 48, 8369-8375.	4.8	25
65	Distinguishing the Importance of Fullerene Phase Separation from Polymer Ordering in the Performance of Low Band Gap Polymer:Bisâ€Fullerene Heterojunctions. Advanced Functional Materials, 2014, 24, 7284-7290.	14.9	19
66	The Role of Fullerene Mixing Behavior in the Performance of Organic Photovoltaics: PCBM in Lowâ€Bandgap Polymers. Advanced Functional Materials, 2014, 24, 140-150.	14.9	53
67	Tuning the Morphology and Performance of Low Bandgap Polymer:Fullerene Heterojunctions via Solvent Annealing in Selective Solvents. Advanced Functional Materials, 2014, 24, 5129-5136.	14.9	45
68	Important thermodynamic characteristics of poly(3-hexyl thiophene). Polymer, 2014, 55, 4-7.	3.8	35
69	The impact of selective solvents on the evolution of structure and function in solvent annealed organic photovoltaics. RSC Advances, 2014, 4, 27931-27938.	3.6	18
70	The Impact of Fullerene Structure on Its Miscibility with P3HT and Its Correlation of Performance in Organic Photovoltaics. Chemistry of Materials, 2014, 26, 3993-4003.	6.7	25
71	Control of morphology and function of low band gap polymerâ€“bis-fullerene mixed heterojunctions in organic photovoltaics with selective solvent vapor annealing. Journal of Materials Chemistry A, 2014, 2, 9883.	10.3	28
72	Dynamics at the Polymer/Nanoparticle Interface in Poly(2-vinylpyridine)/Silica Nanocomposites. Macromolecules, 2014, 47, 1837-1843.	4.8	248

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73	Effect of chain structure on the miscibility of cellulose acetate blends: a small-angle neutron scattering study. Soft Matter, 2013, 9, 3402.	2.7	8
74	Correlation of polymeric compatibilizer structure to its impact on the morphology and function of P3HT:PCBM bulk heterojunctions. Journal of Materials Chemistry A, 2013, 1, 5309.	10.3	33
75	Precise Structural Development and its Correlation to Function in Conjugated Polymer: Fullerene Thin Films by Controlled Solvent Annealing. Advanced Functional Materials, 2013, 23, 1701-1710.	14.9	65
76	Theory of the Miscibility of Fullerenes in Random Copolymer Melts. Macromolecules, 2013, 46, 8732-8743.	4.8	9
77	The impact of controlled solvent exposure on the morphology, structure and function of bulk heterojunction solar cells. Solar Energy Materials and Solar Cells, 2012, 107, 112-124.	6.2	48
78	Shifting Solâ€“Gel Phase Diagram of a Doubly Thermosensitive Hydrophilic Diblock Copolymer Poly(methoxytri(ethylene glycol) acrylate-co-acrylic acid)-b-poly(ethoxydi(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 5	4.8	17
79	Tuning of Thermally Induced Sol-to-Gel Transitions of Moderately Concentrated Aqueous Solutions of Doubly Thermosensitive Hydrophilic Diblock Copolymers Poly(methoxytri(ethylene glycol)) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf Chemistry B, 2012, 116, 3125-3137.	2.6	23
80	Optimizing Noncovalent Interactions Between Lignin and Synthetic Polymers to Develop Effective Compatibilizers. Macromolecular Chemistry and Physics, 2012, 213, 1196-1205.	2.2	7
81	Ternary behavior and systematic nanoscale manipulation of domain structures in P3HT/PCBM/P3HT-b-PEO films. Journal of Materials Chemistry, 2012, 22, 13013.	6.7	53
82	Assembly and Characterization of Well-Defined High-Molecular-Weight Poly(p-phenylene) Polymer Brushes. Chemistry of Materials, 2011, 23, 4367-4374.	6.7	12
83	Tuning of Thermo-Triggered Gel-to-Sol Transition of Aqueous Solution of Multi-Responsive Diblock Copolymer Poly(methoxytri(ethylene glycol) acrylate-co-acrylic acid)-b-poly(ethoxydi(ethylene glycol)) Tj ETQq1 1 0.784314 rgBT /Overlock	4.8	8
84	A New Model for the Morphology of P3HT/PCBM Organic Photovoltaics from Small-Angle Neutron Scattering: Rivers and Streams. ACS Nano, 2011, 5, 4756-4768.	14.6	295
85	Controlling Non-Covalent Interactions to Modulate the Dispersion of Fullerenes in Polymer Nanocomposites. Macromolecules, 2011, 44, 7737-7745.	4.8	22
86	Grafting Polymer Loops onto Functionalized Nanotubes: Monitoring Grafting and Loop Formation. Macromolecular Chemistry and Physics, 2011, 212, 465-477.	2.2	8
87	The influence of temperature on the polymerization of ethyl cyanoacrylate from the vapor phase. Reactive and Functional Polymers, 2011, 71, 809-819.	4.1	8
88	Facile synthesis of thiol-terminated poly(styrene-ran-vinyl phenol) (PSVPh) copolymers via reversible addition-fragmentation chain transfer (RAFT) polymerization and their use in the synthesis of gold nanoparticles with controllable hydrophilicity. Polymer, 2010, 51, 1244-1251.	3.8	29
89	Polymer Loop Formation on a Functionalized Hard Surface: Quantitative Insight by Comparison of Experimental and Monte Carlo Simulation Results. Langmuir, 2010, 26, 202-209.	3.5	18
90	The importance of chain connectivity in the formation of non-covalent interactions between polymers and single-walled carbon nanotubes and its impact on dispersion. Soft Matter, 2010, 6, 2801.	2.7	34

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91	Acetylation of Cellulose Nanowhiskers with Vinyl Acetate under Moderate Conditions. Macromolecular Bioscience, 2009, 9, 997-1003.	4.1	158
92	A Novel Reactive Processing Technique: Using Telechelic Polymers To Reactively Compatibilize Polymer Blends. ACS Applied Materials & Interfaces, 2009, 1, 2163-2173.	8.0	11
93	Stimuli-Induced Multiple Solâ^'Gelâ^'Sol Transitions of Aqueous Solution of a Thermo- and Light-Sensitive Hydrophilic Block Copolymer. Macromolecules, 2009, 42, 8468-8476.	4.8	59
94	Nano-donuts from pH-dependent block restructuring in amphiphilic ABA triblock copolymer vesicles at the air-water interface. Soft Matter, 2009, 5, 747-749.	2.7	16
95	Improving the dispersion and interfaces in polymerâ€carbon nanotube nanocomposites by sample preparation choice. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 1747-1759.	2.1	10
96	Compatibilization of Natural Fibers with Synthetic Polymers Using Triblock Copolymers as Coupling Agents. Macromolecular Chemistry and Physics, 2008, 209, 832-845.	2.2	1
97	Electrospun Microâ€and Nanostructured Polymer Particles. Macromolecular Chemistry and Physics, 2008, 209, 2390-2398.	2.2	25
98	Enhancing the Quality of Aged Latent Fingerprints Developed by Superglue Fuming: Loss and Replenishment of Initiator. Journal of Forensic Sciences, 2008, 53, 1138-1144.	1.6	47
99	The Importance of Thermodynamic Interactions on the Dynamics of Multicomponent Polymer Systems Revealed by Examination of the Dynamics of Copolymer/Homopolymer Blends. Macromolecules, 2008, 41, 3339-3348.	4.8	3
100	Understanding the Grafting of Telechelic Polymers on a Solid Substrate to Form Loops. Macromolecules, 2008, 41, 1009-1018.	4.8	20
101	Impact of Solvent Quality on the Density Profiles of Looped Triblock Copolymer Brushes by Neutron Reflectivity Measurements. Macromolecules, 2008, 41, 1745-1752.	4.8	19
102	Anionic Synthesis of Epoxy End-Capped Polymers. Macromolecular Chemistry and Physics, 2007, 208, 807-814.	2.2	11
103	The efficiency of the oxidation of carbon nanofibers with various oxidizing agents. Carbon, 2007, 45, 1072-1080.	10.3	126
104	Synthesis and characterization of wellâ€defined [polystyreneâ€bâ€poly(2â€vinylpyridine)]n starâ€block copolymers with poly(2â€vinylpyridine) corona blocks. Journal of Polymer Science Part A, 2007, 45, 3949-3955.	2.3	8
105	Understanding the Chemistry of the Development of Latent Fingerprints by Superglue Fuming. Journal of Forensic Sciences, 2007, 52, 1057-1062.	1.6	82
106	Rheology and birefringence of Fomblin YR at very high shear rates. Rheologica Acta, 2007, 46, 839-845.	2.4	6
107	Looped Polymer Brushes Formed by Self-Assembly of Poly(2-vinylpyridine)â^'Polystyreneâ^'Poly(2-vinylpyridine) Triblock Copolymers at the Solidâ^'Fluid Interface. Kinetics of Preferential Adsorption. Macromolecules, 2006, 39, 8434-8439.	4.8	24
108	Polymer-nanofiber composites: Enhancing composite properties by nanofiber oxidation. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 3053-3061.	2.1	17

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109	Improving Dispersion of Single-Walled Carbon Nanotubes in a Polymer Matrix Using Specific Interactions. Chemistry of Materials, 2006, 18, 3513-3522.	6.7	46
110	Polymer nanotube nanocomposites: Correlating intermolecular interaction to ultimate properties. Polymer, 2006, 47, 4734-4741.	3.8	52
111	The effect of copolymer composition on the dynamics of random copolymers in a homopolymer matrix. Journal of Chemical Physics, 2006, 125, 094902.	3.0	3
112	The Effect of Chain Architecture on the Dynamics of Copolymers in a Homopolymer Matrix: Lattice Monte Carlo Simulations using the Bond-Fluctuation Model. Macromolecular Theory and Simulations, 2005, 14, 519-527.	1.4	10
113	MALDI-TOF MS Characterization of Carboxyl-End-Capped Polystyrenes Synthesized Using Anionic Polymerization. Macromolecules, 2005, 38, 9950-9956.	4.8	19
114	Formation of Oriented Nanostructures from Single Molecules of Conjugated Polymers in Microdroplets of Solution:Â The Role of Solvent. Macromolecules, 2004, 37, 6132-6140.	4.8	32
115	Guidelines To Creating a True Molecular Composite:Â Inducing Miscibility in Blends by Optimizing Intermolecular Hydrogen Bonding. Macromolecules, 2002, 35, 5049-5060.	4.8	50
116	Quantifying and Controlling the Composition and â€˜Randomnessâ€™ Distributions of Random Copolymers. Macromolecular Theory and Simulations, 2001, 10, 795-801.	1.4	12
117	Formation of a True Molecular Composite using Optimal Hydrogen Bonding. Macromolecular Rapid Communications, 2001, 22, 779-782.	3.9	11
118	A Monte Carlo study of the effect of polymer rigidity on adsorption behaviour. Computational and Theoretical Polymer Science, 1999, 9, 47-56.	1.1	8
119	Flow-induced structure in a thermotropic liquid crystalline polymer as studied by SANS. Journal of Polymer Science, Part B: Polymer Physics, 1998, 36, 3017-3023.	2.1	9
120	Isotropization of nematic liquid crystals by TMDSC. Thermochimica Acta, 1998, 324, 87-94.	2.7	22
121	Handbook of Liquid Crystal Research (ed.s Collings, Peter J.; Patel, Jay S.). Journal of Chemical Education, 1998, 75, 1220.	2.3	0
122	Effect of Copolymer Architecture on the Interfacial Structure and Miscibility of a Ternary Polymer Blend Containing a Copolymer and Two Homopolymers. Macromolecules, 1996, 29, 3868-3874.	4.8	70
123	Shear-Induced Orientation of Liquid-Crystalline Hydroxypropylcellulose in D₂O as Measured by Neutron Scattering. ACS Symposium Series, 1995, , 320-334.	0.5	1
124	A Neutron Scattering Study of the Orientation of a Liquid Crystalline Polymer by Shear Flow. Macromolecules, 1994, 27, 7522-7532.	4.8	39
125	Impacts of Bond Type and Grafting Density on the Thermal, Structural, and Transport Behaviors of Nanoparticle Organic Hybrid Materialsâ€Based Electrolytes. Advanced Functional Materials, 0, , 2203947.	14.9	4
126	Identifying optimal dispersant aids for flame retardant additives in tetramethyl cyclobutanediolâ€based copolyesters. Journal of Applied Polymer Science, 0, , .	2.6	0