Jian Qin

List of Publications by Year in descending order

83 papers	6,274 citations	76326 40 h-index	69250 77 g-index
84 all docs	84 docs citations	84 times ranked	5395 citing authors

#	Article	IF	Citations
1	Ultrathin, flexible, solid polymer composite electrolyte enabled with aligned nanoporous host for lithium batteries. Nature Nanotechnology, 2019, 14, 705-711.	31.5	773
2	Molecular design for electrolyte solvents enabling energy-dense and long-cycling lithium metal batteries. Nature Energy, 2020, 5, 526-533.	39.5	642
3	Rational solvent molecule tuning for high-performance lithium metal battery electrolytes. Nature Energy, 2022, 7, 94-106.	39.5	336
4	A New Class of Ionically Conducting Fluorinated Ether Electrolytes with High Electrochemical Stability. Journal of the American Chemical Society, 2020, 142, 7393-7403.	13.7	225
5	Chirality-selected phase behaviour in ionic polypeptide complexes. Nature Communications, 2015, 6, 6052.	12.8	208
6	Steric Effect Tuned Ion Solvation Enabling Stable Cycling of High-Voltage Lithium Metal Battery. Journal of the American Chemical Society, 2021, 143, 18703-18713.	13.7	205
7	Liquid electrolyte: The nexus of practical lithium metal batteries. Joule, 2022, 6, 588-616.	24.0	191
8	Crosslinked Poly(tetrahydrofuran) as a Loosely Coordinating Polymer Electrolyte. Advanced Energy Materials, 2018, 8, 1800703.	19.5	177
9	A Dynamic, Electrolyte-Blocking, and Single-Ion-Conductive Network for Stable Lithium-Metal Anodes. Joule, 2019, 3, 2761-2776.	24.0	176
10	Self-healing of electrical damage in polymers using superparamagnetic nanoparticles. Nature Nanotechnology, 2019, 14, 151-155.	31.5	169
11	SCFT Study of Nonfrustrated ABC Triblock Copolymer Melts. Macromolecules, 2007, 40, 4654-4668.	4.8	163
12	Suspension electrolyte with modified Li+ solvation environment for lithium metal batteries. Nature Materials, 2022, 21, 445-454.	27.5	155
13	Broadly Accessible Self-Consistent Field Theory for Block Polymer Materials Discovery. Macromolecules, 2016, 49, 4675-4690.	4.8	150
14	Interfacial Tension of Polyelectrolyte Complex Coacervate Phases. ACS Macro Letters, 2014, 3, 565-568.	4.8	135
15	Ternary, Tunable Polyelectrolyte Complex Fluids Driven by Complex Coacervation. Macromolecules, 2014, 47, 3076-3085.	4.8	127
16	Dualâ€Solvent Liâ€Ion Solvation Enables Highâ€Performance Liâ€Metal Batteries. Advanced Materials, 2021, 33, e2008619.	21.0	123
17	High-temperature crystallization of nanocrystals into three-dimensional superlattices. Nature, 2017, 548, 197-201.	27.8	101
18	Criticality and Connectivity in Macromolecular Charge Complexation. Macromolecules, 2016, 49, 8789-8800.	4.8	96

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19	Transient Voltammetry with Ultramicroelectrodes Reveals the Electron Transfer Kinetics of Lithium Metal Anodes. ACS Energy Letters, 2020, 5, 701-709.	17.4	91
20	Nonpolar Alkanes Modify Lithiumâ€Ion Solvation for Improved Lithium Deposition and Stripping. Advanced Energy Materials, 2019, 9, 1902116.	19.5	86
21	Phase Behavior of Nonfrustrated ABC Triblock Copolymers: Weak and Intermediate Segregation. Macromolecules, 2010, 43, 5128-5136.	4.8	83
22	Potentiometric Measurement to Probe Solvation Energy and Its Correlation to Lithium Battery Cyclability. Journal of the American Chemical Society, 2021, 143, 10301-10308.	13.7	83
23	Tunable Coacervation of Well-Defined Homologous Polyanions and Polycations by Local Polarity. ACS Central Science, 2019, 5, 549-557.	11.3	76
24	Renormalization of the one-loop theory of fluctuations in polymer blends and diblock copolymer melts. Physical Review E, 2007, 76, 061802.	2.1	75
25	A molecular design approach towards elastic and multifunctional polymer electronics. Nature Communications, 2021, 12, 5701.	12.8	75
26	Electrochemical generation of liquid and solid sulfur on two-dimensional layered materials with distinct areal capacities. Nature Nanotechnology, 2020, 15, 231-237.	31.5	65
27	Evolutionary Optimization of Directed Self-Assembly of Triblock Copolymers on Chemically Patterned Substrates. ACS Macro Letters, 2014, 3, 747-752.	4.8	64
28	Linear Response and Stability of Ordered Phases of Block Copolymer Melts. Macromolecules, 2008, 41, 942-954.	4.8	62
29	Finding the Tube with Isoconfigurational Averaging. Macromolecules, 2011, 44, 8972-8980.	4.8	58
30	Evolutionary pattern design for copolymer directed self-assembly. Soft Matter, 2013, 9, 11467.	2.7	57
31	Collective and Single-Chain Correlations in Disordered Melts of Symmetric Diblock Copolymers: Quantitative Comparison of Simulations and Theory. Macromolecules, 2014, 47, 851-869.	4.8	56
32	Physical networks from entropy-driven non-covalent interactions. Nature Communications, 2021, 12, 746.	12.8	55
33	Role of electrostatic correlations in polyelectrolyte charge association. Journal of Chemical Physics, 2018, 149, 163335.	3.0	51
34	Fluctuations in Symmetric Diblock Copolymers: Testing Theories Old and New. Physical Review Letters, 2012, 108, 238301.	7.8	50
35	Renormalized one-loop theory of correlations in polymer blends. Journal of Chemical Physics, 2009, 130, 224902.	3.0	49
36	Dendrite Suppression by a Polymer Coating: A Coarseâ€Grained Molecular Study. Advanced Functional Materials, 2020, 30, 1910138.	14.9	49

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37	Tubes, Topology, and Polymer Entanglement. Macromolecules, 2014, 47, 6077-6085.	4.8	44
38	Tuning Precursor Reactivity toward Nanometer-Size Control in Palladium Nanoparticles Studied by in Situ Small Angle X-ray Scattering. Chemistry of Materials, 2018, 30, 1127-1135.	6.7	43
39	Mechanically resolved imaging of bacteria using expansion microscopy. PLoS Biology, 2019, 17, e3000268.	5.6	43
40	Counting polymer knots to find the entanglement length. Soft Matter, 2011, 7, 10676.	2.7	41
41	Solvation and Entropic Regimes in Ion-Containing Block Copolymers. Macromolecules, 2018, 51, 7463-7475.	4.8	41
42	Renormalized one-loop theory of correlations in disordered diblock copolymers. Journal of Chemical Physics, 2011, 135, 084902.	3.0	38
43	Test of a scaling hypothesis for the structure factor of disordered diblock copolymer melts. Soft Matter, 2012, 8, 11310.	2.7	34
44	Bicontinuous Polymeric Microemulsions from Polydisperse Diblock Copolymers. Journal of Physical Chemistry B, 2009, 113, 3726-3737.	2.6	33
45	A theory of interactions between polarizable dielectric spheres. Journal of Colloid and Interface Science, 2016, 469, 237-241.	9.4	33
46	Ordering Transition in Salt-Doped Diblock Copolymers. Macromolecules, 2016, 49, 3630-3638.	4.8	31
47	Ion Distribution in Microphase-Separated Copolymers with Periodic Dielectric Permittivity. Macromolecules, 2018, 51, 1986-1991.	4.8	31
48	Polydispersity effects in poly(isoprene-b-styrene-b-ethylene oxide) triblock terpolymers. Journal of Chemical Physics, 2009, 130, 234903.	3.0	30
49	Tube Diameter of Oriented and Stretched Polymer Melts. Macromolecules, 2013, 46, 1659-1672.	4.8	29
50	Molecular Architecture Directs Linearâ€“Bottlebrushâ€“Linear Triblock Copolymers to Self-Assemble to Soft Reprocessable Elastomers. ACS Macro Letters, 2019, 8, 1528-1534.	4.8	28
51	Efficient Electronic Tunneling Governs Transport in Conducting Polymer-Insulator Blends. Journal of the American Chemical Society, 2022, 144, 10368-10376.	13.7	26
52	Image method for induced surface charge from many-body system of dielectric spheres. Journal of Chemical Physics, 2016, 145, 124903.	3.0	25
53	TCRâ€“pMHC bond conformation controls TCR ligand discrimination. Cellular and Molecular Immunology, 2020, 17, 203-217.	10.5	25
54	Looping-in complexation and ion partitioning in nonstoichiometric polyelectrolyte mixtures. Science Advances, 2021, 7, .	10.3	25

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55	Predictably Engineering the Viscoelastic Behavior of Dynamic Hydrogels via Correlation with Molecular Parameters. Advanced Materials, 2021, 33, e2104460.	21.0	24
56	Effects of tube persistence length on dynamics of mildly entangled polymers. Journal of Rheology, 2012, 56, 707-723.	2.6	21
57	Comparing Experimental Phase Behavior of Ion-Doped Block Copolymers with Theoretical Predictions Based on Selective Ion Solvation. Macromolecules, 2020, 53, 3956-3966.	4.8	20
58	Field-theoretic simulations of random copolymers with structural rigidity. Soft Matter, 2017, 13, 2760-2772.	2.7	19
59	Reversible Gelation of Entangled Ionomers. Macromolecules, 2019, 52, 8771-8780.	4.8	19
60	A Hybrid Human-computer Approach to the Extraction of Scientific Facts from the Literature. Procedia Computer Science, 2016, 80, 386-397.	2.0	18
61	Phase segregation mechanisms of small moleculeâ€polymer blends unraveled by varying polymer chain architecture. SmartMat, 2021, 2, 367-377.	10.7	18
62	Finding Entanglement Points in Simulated Polymer Melts. Macromolecules, 2015, 48, 99-110.	4.8	17
63	Blending Education and Polymer Science: Semiautomated Creation of a Thermodynamic Property Database. Journal of Chemical Education, 2016, 93, 1561-1568.	2.3	17
64	Tube Dynamics Works for Randomly Entangled Rings. Physical Review Letters, 2016, 116, 068307.	7.8	17
65	Relationships among coarse-grained field theories of fluctuations in polymer liquids. Journal of Chemical Physics, 2011, 134, 084902.	3.0	15
66	Atomistic Modeling of PEDOT:PSS Complexes I: DFT Benchmarking. Macromolecules, 2021, 54, 3634-3646.	4.8	14
67	An O(N) and parallel approach to integral problems by a kernel-independent fast multipole method: Application to polarization and magnetization of interacting particles. Journal of Chemical Physics, 2016, 145, .	3.0	13
68	Charge polarization near dielectric interfaces and the multiple-scattering formalism. Soft Matter, 2019, 15, 2125-2134.	2.7	12
69	Sculpting bespoke mountains: Determining free energies with basis expansions. Journal of Chemical Physics, 2015, 143, 044101.	3.0	11
70	Simulating Constraint Release by Watching a Ring Cross Itself. Macromolecules, 2014, 47, 2479-2486.	4.8	10
71	Tube Diameter of Stretched and Compressed Permanently Entangled Polymers. Macromolecules, 2012, 45, 9816-9822.	4.8	9
72	Impact of Liquid-Crystalline Chain Alignment on Charge Transport in Conducting Polymers. Macromolecules, 2019, 52, 8932-8939.	4.8	9

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73	Atomistic Modeling of PEDOT:PSS Complexes II: Force Field Parameterization. Macromolecules, 2021, 54, 5354-5365.	4.8	9
74	Image method for electrostatic energy of polarizable dipolar spheres. Journal of Chemical Physics, 2017, 147, 064908.	3.0	8
75	Weakening of Solvation-Induced Ordering by Composition Fluctuation in Salt-Doped Block Polymers. ACS Macro Letters, 2021, 10, 545-550.	4.8	8
76	Reversible ion binding for polyelectrolytes with adaptive conformations. AICHE Journal, 0, , e17426.	3.6	6
77	Singular electrostatic energy of nanoparticle clusters. Physical Review E, 2016, 93, 022603.	2.1	5
78	Chromatic neuronal jamming in a primitive brain. Nature Physics, 2020, 16, 553-557.	16.7	5
79	Polarization energy of two charged dielectric spheres in close contact. Molecular Systems Design and Engineering, 2018, 3, 197-203.	3.4	4
80	Distribution Cutoff for Clusters near the Gel Point. ACS Polymers Au, 2022, 2, 361-370.	4.1	4
81	Dielectric virial expansion of polarizable dipolar spheres. Journal of Chemical Physics, 2018, 149, 163332.	3.0	3
82	Inside Front Cover: Volume 2 Issue 3. SmartMat, 2021, 2, iii.	10.7	0
83	Earlyâ€career investigator special issue. Journal of Polymer Science, 2021, 59, 2364-2364.	3.8	0