Vera Bocharova

List of Publications by Year
in descending order

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44 papers	2,381 citations	236612 25 h-index	243296 44 g-index
47 all docs	47 docs citations	47 times ranked	1924 citing authors

#	Article	IF	Citations
1	Understanding Self-Assembly and the Stabilization of Liquid/Liquid Interfaces: The Importance of Ligand Tail Branching and Oil-Phase Solvation. Journal of Colloid and Interface Science, 2022, 609, 807-814.	5.0	13
2	Improving Rare-Earth Mineral Separation with Insights from Molecular Recognition: Functionalized Hydroxamic Acid Adsorption onto BastnÃsite and Calcite. Langmuir, 2022, 38, 5439-5453.	1.6	6
3	Tuning the Properties of Nanocomposites by Trapping Them in Deep Metastable States. ACS Applied Polymer Materials, 2022, 4, 3174-3182.	2.0	3
4	Improving Gas Selectivity in Membranes Using Polymer-Grafted Silica Nanoparticles. ACS Applied Nano Materials, 2021, 4, 5895-5903.	2.4	10
5	Collective Nanoparticle Dynamics Associated with Bridging Network Formation in Model Polymer Nanocomposites. ACS Nano, 2021, 15, 11501-11513.	7.3	34
6	Direct Structural Evidence for Interfacial Gradients in Asymmetric Polymer Nanocomposite Blends. ACS Applied Materials & Interfaces, 2021, 13, 36262-36274.	4.0	8
7	Single-Ion Conducting Polymer Nanoparticles as Functional Fillers for Solid Electrolytes in Lithium Metal Batteries. ACS Applied Materials & Interfaces, 2021, 13, 54354-54362.	4.0	38
8	Insight into the Mechanisms Driving the Self-Assembly of Functional Interfaces: Moving from Lipids to Charged Amphiphilic Oligomers. Journal of the American Chemical Society, 2020, 142, 290-299.	6.6	27
9	A Molecular-Scale Approach to Rare-Earth Beneficiation: Thinking Small to Avoid Large Losses. IScience, 2020, 23, 101435.	1.9	13
10	Role of Fast Dynamics in Conductivity of Polymerized Ionic Liquids. Journal of Physical Chemistry B, 2020, 124, 10539-10545.	1.2	2
11	Bridging-Controlled Network Microstructure and Long-Wavelength Fluctuations in Silicaâ€"Poly(2-vinylpyridine) Nanocomposites: Experimental Results and Theoretical Analysis. Macromolecules, 2020, 53, 6984-6994.	2.2	20
12	Strong Reduction in Amplitude of the Interfacial Segmental Dynamics in Polymer Nanocomposites. Macromolecules, 2020, 53, 4126-4135.	2.2	46
13	Modulation of Cation Diffusion by Reversible Supramolecular Assemblies in Ionic Liquid-Based Nanocomposites. ACS Applied Materials & Interfaces, 2020, 12, 31842-31851.	4.0	2
14	Addition of Short Polymer Chains Mechanically Reinforces Glassy Poly(2-vinylpyridine)â€"Silica Nanoparticle Nanocomposites. ACS Applied Nano Materials, 2020, 3, 3427-3438.	2.4	21
15	Capacitance of thin films containing polymerized ionic liquids. Science Advances, 2020, 6, eaba7952.	4.7	12
16	Perspectives for Polymer Electrolytes: A View from Fundamentals of Ionic Conductivity. Macromolecules, 2020, 53, 4141-4157.	2.2	221
17	Structure and dynamics of short-chain polymerized ionic liquids. Journal of Chemical Physics, 2019, 151, 034903.	1.2	18
18	Noncontact tip-enhanced Raman spectroscopy for nanomaterials and biomedical applications. Nanoscale Advances, 2019, 1, 3392-3399.	2.2	7

#	ARTICLE	IF	CITATIONS
19	Structural correlations tailor conductive properties in polymerized ionic liquids. Physical Chemistry Chemical Physics, 2019, 21, 14775-14785.	1.3	9
20	Understanding the Static Interfacial Polymer Layer by Exploring the Dispersion States of Nanocomposites. ACS Applied Materials & Interfaces, 2019, 11, 17863-17872.	4.0	35
21	Fundamental parameters governing ion conductivity in polymer electrolytes. Electrochimica Acta, 2019, 299, 191-196.	2.6	56
22	Theory and Simulation of Attractive Nanoparticle Transport in Polymer Melts. Macromolecules, 2018, 51, 2258-2267.	2.2	38
23	Diffusion of Sticky Nanoparticles in a Polymer Melt: Crossover from Suppressed to Enhanced Transport. Macromolecules, 2018, 51, 2268-2275.	2.2	52
24	Fundamental Limitations of Ionic Conductivity in Polymerized Ionic Liquids. Macromolecules, 2018, 51, 8637-8645.	2.2	103
25	Enhancing the Mechanical Properties of Glassy Nanocomposites by Tuning Polymer Molecular Weight. ACS Applied Materials & Interfaces, 2018, 10, 33601-33610.	4.0	58
26	Unraveling the Molecular Weight Dependence of Interfacial Interactions in Poly(2-vinylpyridine)/Silica Nanocomposites. ACS Macro Letters, 2017, 6, 68-72.	2.3	65
27	A Rayleighian approach for modeling kinetics of ionic transport in polymeric media. Journal of Chemical Physics, 2017, 146, 064902.	1.2	12
28	Focus: Structure and dynamics of the interfacial layer in polymer nanocomposites with attractive interactions. Journal of Chemical Physics, 2017, 146, 203201.	1.2	114
29	Interfacial Properties of Polymer Nanocomposites: Role of Chain Rigidity and Dynamic Heterogeneity Length Scale. Macromolecules, 2017, 50, 2397-2406.	2.2	115
30	Effect of Chain Rigidity on the Decoupling of Ion Motion from Segmental Relaxation in Polymerized Ionic Liquids: Ambient and Elevated Pressure Studies. Macromolecules, 2017, 50, 6710-6721.	2.2	78
31	Effects of counterion size and backbone rigidity on the dynamics of ionic polymer melts and glasses. Physical Chemistry Chemical Physics, 2017, 19, 27442-27451.	1.3	22
32	Revealing the Charge Transport Mechanism in Polymerized Ionic Liquids: Insight from High Pressure Conductivity Studies. Chemistry of Materials, 2017, 29, 8082-8092.	3.2	32
33	Influence of Chain Rigidity and Dielectric Constant on the Glass Transition Temperature in Polymerized Ionic Liquids. Journal of Physical Chemistry B, 2017, 121, 11511-11519.	1.2	82
34	Interplay between local dynamics and mechanical reinforcement in glassy polymer nanocomposites. Physical Review Materials, 2017, 1, .	0.9	29
35	Unraveling the Mechanism of Nanoscale Mechanical Reinforcement in Glassy Polymer Nanocomposites. Nano Letters, 2016, 16, 3630-3637.	4.5	142
36	Influence of the Bound Polymer Layer on Nanoparticle Diffusion in Polymer Melts. ACS Macro Letters, 2016, 5, 1141-1145.	2.3	91

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37	Mechanism of Conductivity Relaxation in Liquid and Polymeric Electrolytes: Direct Link between Conductivity and Diffusivity. Journal of Physical Chemistry B, 2016, 120, 11074-11083.	1.2	101
38	Unexpected Molecular Weight Effect in Polymer Nanocomposites. Physical Review Letters, 2016, 116, 038302.	2.9	134
39	Controlling Interfacial Dynamics: Covalent Bonding <i>versus</i> Physical Adsorption in Polymer Nanocomposites. ACS Nano, 2016, 10, 6843-6852.	7.3	152
40	Graphene Oxide as a Radical Initiator: Free Radical and Controlled Radical Polymerization of Sodium 4-Vinylbenzenesulfonate with Graphene Oxide. ACS Macro Letters, 2016, 5, 199-202.	2.3	24
41	Revealing spatially heterogeneous relaxation in a model nanocomposite. Journal of Chemical Physics, 2015, 143, 194704.	1.2	57
42	Controlled Nanopatterning of a Polymerized Ionic Liquid in a Strong Electric Field. Advanced Functional Materials, 2015, 25, 805-811.	7.8	13
43	Ion transport and softening in a polymerized ionic liquid. Nanoscale, 2015, 7, 947-955.	2.8	18
44	Dynamics at the Polymer/Nanoparticle Interface in Poly(2-vinylpyridine)/Silica Nanocomposites. Macromolecules, 2014, 47, 1837-1843.	2.2	248