

Oleg Borisov

List of Publications by Year in descending order

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85
papers

4,527
citations

136950

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102487

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85
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85
docs citations

85
times ranked

3777
citing authors

#	ARTICLE	IF	CITATIONS
1	Bottlebrush polymer gels: architectural control over swelling and osmotic bulk modulus. <i>Soft Matter</i> , 2022, 18, 1239-1246.	2.7	8
2	Colloidal particles interacting with a polymer brush: a self-consistent field theory. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 8463-8476.	2.8	6
3	Theory of Mesophases of Triblock Comb-Shaped Copolymers: Effects of Dead Zones and Bridging. <i>Macromolecules</i> , 2022, 55, 6040-6055.	4.8	1
4	Proteins and Polyampholytes Interacting with Polyelectrolyte Brushes and Microgels: The Charge Reversal Concept Revised. <i>Langmuir</i> , 2021, 37, 2865-2873.	3.5	10
5	Self-Assembly of Bottlebrush Block Copolymers in Selective Solvent: Micellar Structures. <i>Polymers</i> , 2021, 13, 1351.	4.5	8
6	Theory of Microphase Segregation in ABA Triblock Comb-Shaped Copolymers: Lamellar Mesophase. <i>Macromolecules</i> , 2021, 54, 4747-4759.	4.8	5
7	Micelles Formed by an AB Copolymer with Bottlebrush Blocks: Scaling Theory. <i>Journal of Physical Chemistry B</i> , 2021, 125, 12603-12616.	2.6	6
8	Polymer Brush in a Nanopore: Effects of Solvent Strength and Macromolecular Architecture Studied by Self-Consistent Field and Scaling Theory. <i>Polymers</i> , 2021, 13, 3929.	4.5	3
9	Intramolecular micellization and nanopatterning in pH- and thermo-responsive molecular brushes. <i>Soft Matter</i> , 2020, 16, 208-218.	2.7	5
10	Dendron Brushes in Polymer Medium: Interpenetration and Depletion. <i>Macromolecules</i> , 2020, 53, 387-397.	4.8	4
11	Brushes and lamellar mesophases of comb-shaped (co)polymers: a self-consistent field theory. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 23385-23398.	2.8	7
12	SCF Theory of Uniformly Charged Dendrimers: Impact of Asymmetry of Branching, Generation Number, and Salt Concentration. <i>Macromolecules</i> , 2020, 53, 7298-7311.	4.8	6
13	Microphase Segregation in the Melts of Bottlebrush Block Copolymers. <i>Macromolecules</i> , 2020, 53, 2582-2593.	4.8	32
14	Cascades of unfolding transitions in amphiphilic molecular brushes. <i>Journal of Chemical Physics</i> , 2020, 152, 081101.	3.0	1
15	Theory of polyelectrolyte dendrigrafts. <i>Colloid and Polymer Science</i> , 2020, 298, 951-959.	2.1	2
16	Theory of Microphase Segregation in the Melts of Copolymers with Dendritically Branched, Bottlebrush, or Cycled Blocks. <i>ACS Macro Letters</i> , 2019, 8, 1075-1079.	4.8	14
17	Temperature-Induced Re-Entrant Morphological Transitions in Block-Copolymer Micelles. <i>Langmuir</i> , 2019, 35, 2680-2691.	3.5	9
18	Self-Assembly of Linear-Dendritic and Double Dendritic Block Copolymers: From Dendromicelles to Dendrimersomes. <i>Macromolecules</i> , 2019, 52, 3655-3667.	4.8	14

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19	Solution and Melts of Barbwire Bottlebrushes: Hierarchical Structure and Scale-Dependent Elasticity. <i>Macromolecules</i> , 2019, 52, 1671-1684.	4.8	28
20	Polymer Networks Formed by Molecular Brushes: Scaling Theory. <i>Polymer Science - Series A</i> , 2019, 61, 799-804.	1.0	6
21	Non-linear elasticity effects and stratification in brushes of branched polyelectrolytes. <i>Journal of Chemical Physics</i> , 2019, 151, 214902.	3.0	1
22	Block Copolymer Micelles for Photonic Fluids and Crystals. <i>ACS Nano</i> , 2018, 12, 3149-3158.	14.6	36
23	Impact of Macromolecular Architecture on Bending Rigidity of Dendronized Surfaces. <i>Macromolecules</i> , 2018, 51, 3315-3329.	4.8	4
24	Theory of Linear Dendritic Block Copolymer Micelles. <i>ACS Macro Letters</i> , 2018, 7, 42-46.	4.8	12
25	Planar Brush of End-Tethered Molecular Bottle-Brushes. Scaling Mode. <i>Polymer Science - Series C</i> , 2018, 60, 76-83.	1.7	3
26	Scaling Theory of Complex Coacervate Core Micelles. <i>ACS Macro Letters</i> , 2018, 7, 811-816.	4.8	38
27	Interplay of Thermosensitivity and pH Sensitivity of Amphiphilic Block Gradient Copolymers of Dimethylaminoethyl Acrylate and Styrene. <i>Macromolecules</i> , 2018, 51, 5219-5233.	4.8	19
28	Structure and properties of polydisperse polyelectrolyte brushes studied by self-consistent field theory. <i>Soft Matter</i> , 2018, 14, 6230-6242.	2.7	16
29	Complex Coacervate of Weakly Charged Polyelectrolytes: Diagram of States. <i>Macromolecules</i> , 2018, 51, 3788-3801.	4.8	60
30	Microphase Separation in Complex Coacervate Due to Incompatibility between Polyanion and Polycation. <i>Macromolecules</i> , 2018, 51, 6587-6601.	4.8	36
31	Dendron and Hyperbranched Polymer Brushes in Good and Poor Solvents. <i>Langmuir</i> , 2017, 33, 1315-1325.	3.5	20
32	A self-consistent mean-field model for polyelectrolyte gels. <i>Soft Matter</i> , 2017, 13, 3264-3274.	2.7	34
33	Structure and lubrication of solvent-free dendron brushes. <i>Polymer</i> , 2017, 120, 223-235.	3.8	8
34	Bending moduli of dendritic polymer brushes in a good solvent. <i>Polymer Science - Series A</i> , 2017, 59, 772-783.	1.0	1
35	Self-consistent field theory of polyelectrolyte brushes with finite chain extensibility. <i>Journal of Chemical Physics</i> , 2017, 146, 214901.	3.0	22
36	Unfolding of a comb-like polymer in a poor solvent: translation of macromolecular architecture in the force-deformation spectra. <i>Soft Matter</i> , 2017, 13, 9147-9161.	2.7	3

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37	Rational design of ABC triblock terpolymer solution nanostructures with controlled patch morphology. <i>Nature Communications</i> , 2016, 7, 12097.	12.8	140
38	Charge-controlled nano-structuring in partially collapsed star-shaped macromolecules. <i>Soft Matter</i> , 2016, 12, 4846-4852.	2.7	34
39	Amphiphilic Gradient Copolymers: Synthesis and Self-Assembly in AQUEOUS SOLUTION. , 2016, , 83-124.		1
40	Thermodynamics of the multi-stage self-assembly of pH-sensitive gradient copolymers in aqueous solutions. <i>Soft Matter</i> , 2016, 12, 6788-6798.	2.7	13
41	Brushes of Cycled Macromolecules: Structure and Lubricating Properties. <i>Macromolecules</i> , 2016, 49, 8758-8767.	4.8	27
42	Theory of Brushes Formed by \hat{r} -Shaped Macromolecules at Solid-Liquid Interfaces. <i>Langmuir</i> , 2015, 31, 6514-6522.	3.5	29
43	Brushes of Dendritically Branched Polyelectrolytes. <i>Macromolecules</i> , 2015, 48, 1499-1508.	4.8	21
44	pH- and Electro-Responsive Properties of Poly(acrylic acid) and Poly(acrylic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 467 Td (acid)-<i>block Microbalance with Dissipation Monitoring. <i>Langmuir</i> , 2015, 31, 7684-7694.	3.5	40
45	Ideal Mixing in Multicomponent Brushes of Branched Polymers. <i>Macromolecules</i> , 2015, 48, 8025-8035.	4.8	26
46	Persistence length of dendronized polymers: the self-consistent field theory. <i>Soft Matter</i> , 2015, 11, 9367-9378.	2.7	22
47	Dendron brushes and dendronized polymers: a theoretical outlook. <i>Soft Matter</i> , 2014, 10, 2093-2101.	2.7	51
48	Modeling of Ionization and Conformations of Starlike Weak Polyelectrolytes. <i>Macromolecules</i> , 2014, 47, 4004-4016.	4.8	58
49	Interactions between Brushes of Root-Tethered Dendrons. <i>Macromolecules</i> , 2014, 47, 6932-6945.	4.8	27
50	Effect of Block Copolymer Architecture on Morphology of Self-Assembled Aggregates in Solution. <i>ACS Macro Letters</i> , 2013, 2, 292-295.	4.8	30
51	Dendritic Spherical Polymer Brushes: Theory and Self-Consistent Field Modeling. <i>Macromolecules</i> , 2013, 46, 4651-4662.	4.8	35
52	Precise hierarchical self-assembly of multicompartment micelles. <i>Nature Communications</i> , 2012, 3, 710.	12.8	504
53	Collapse of a weak polyelectrolyte star in a poor solvent. <i>Soft Matter</i> , 2012, 8, 9446.	2.7	15
54	Theory of Block Polymer Micelles: Recent Advances and Current Challenges. <i>Macromolecules</i> , 2012, 45, 4429-4440.	4.8	206

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55	Proteins and polyelectrolytes: A charged relationship. <i>Current Opinion in Colloid and Interface Science</i> , 2012, 17, 90-96.	7.4	101
56	Self-Assembled Structures of Amphiphilic Ionic Block Copolymers: Theory, Self-Consistent Field Modeling and Experiment. <i>Advances in Polymer Science</i> , 2011, , 57-129.	0.8	78
57	Conformations and Solution Properties of Star-Branched Polyelectrolytes. <i>Advances in Polymer Science</i> , 2010, , 1-55.	0.8	25
58	Interpolyelectrolyte Complexes Based on Polyionic Species of Branched Topology. <i>Advances in Polymer Science</i> , 2010, , 131-161.	0.8	38
59	A Quantitative Theory of Mechanical Unfolding of a Homopolymer Globule. <i>Macromolecules</i> , 2010, 43, 1629-1643.	4.8	19
60	Dendritic versus Linear Polymer Brushes: Self-Consistent Field Modeling, Scaling Theory, and Experiments. <i>Macromolecules</i> , 2010, 43, 9555-9566.	4.8	65
61	Interpolyelectrolyte Complexes between Starlike and Linear Macromolecules: A Structural Model for Nonviral Gene Vectors. <i>Langmuir</i> , 2009, 25, 1915-1918.	3.5	30
62	Mechanical Unfolding of a Homopolymer Globule Studied by Self-Consistent Field Modeling. <i>Macromolecules</i> , 2009, 42, 5360-5371.	4.8	17
63	Effect of the Ionic Strength on Collapse Transition in Starlike Polyelectrolytes. <i>Macromolecular Symposia</i> , 2009, 278, 24-31.	0.7	8
64	Pearl-Necklace Structures in Core-shell Molecular Brushes: Experiments, Monte Carlo Simulations, and Self-Consistent Field Modeling. <i>Macromolecules</i> , 2008, 41, 4020-4028.	4.8	45
65	Counterion Localization in Solutions of Starlike Polyelectrolytes and Colloidal Polyelectrolyte Brushes: A Self-Consistent Field Theory. <i>Langmuir</i> , 2008, 24, 10026-10034.	3.5	24
66	On the Curvature Energy of a Thin Membrane Decorated by Polymer Brushes. <i>Macromolecules</i> , 2008, 41, 478-488.	4.8	29
67	On the Mechanism of Uptake of Globular Proteins by Polyelectrolyte Brushes: A Two-Gradient Self-Consistent Field Analysis. <i>Langmuir</i> , 2007, 23, 3937-3946.	3.5	77
68	Polyelectrolyte brushes. <i>Current Opinion in Colloid and Interface Science</i> , 2006, 11, 316-323.	7.4	286
69	Bending Rigidity and Induced Persistence Length of Molecular Bottle Brushes: A Self-Consistent-Field Theory. <i>Macromolecules</i> , 2005, 38, 8891-8901.	4.8	122
70	Cylindrical molecular brushes under poor solvent conditions: microscopic observation and scaling analysis. <i>European Physical Journal E</i> , 2004, 13, 125-131.	1.6	59
71	Starburst Polyelectrolytes: A Scaling and Self-Consistent-Field Theory. <i>Macromolecules</i> , 2003, 36, 6624-6631.	4.8	26
72	Self-Assembly in Solution of Block Copolymers with Annealing Polyelectrolyte Blocks. <i>Macromolecules</i> , 2002, 35, 9191-9203.	4.8	68

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73	Annealed Star-Branched Polyelectrolytes in Solution. <i>Macromolecules</i> , 2002, 35, 9176-9190.	4.8	67
74	Screening Effects in a Polyelectrolyte Brush: Self-Consistent-Field Theory. <i>Macromolecules</i> , 2000, 33, 4945-4953.	4.8	144
75	Screening in Solutions of Star-Branched Polyelectrolytes. <i>Macromolecules</i> , 1999, 32, 2365-2377.	4.8	93
76	Absorption of a Polyelectrolyte Brush into an Oppositely Charged Layer. <i>Macromolecules</i> , 1998, 31, 7413-7422.	4.8	20
77	Structure and interaction of weakly charged polyelectrolyte brushes: Self-consistent field theory. <i>Journal of Chemical Physics</i> , 1997, 107, 5952-5967.	3.0	205
78	Polysoaps: Extension and Compression. <i>Macromolecules</i> , 1997, 30, 4432-4444.	4.8	22
79	Conformations of Star-Branched Polyelectrolytes. <i>Journal De Physique II</i> , 1996, 6, 1-19.	0.9	44
80	On the elasticity of polysoaps: The effects of secondary structure. <i>Europhysics Letters</i> , 1996, 34, 657-662.	2.0	19
81	Theory of Ionizable Polymer Brushes. <i>Macromolecules</i> , 1995, 28, 1491-1499.	4.8	312
82	Diagram of the States of a Grafted Polyelectrolyte Layer. <i>Macromolecules</i> , 1994, 27, 4795-4803.	4.8	222
83	Coil-globule type transitions in polymers. 1. Collapse of layers of grafted polymer chains. <i>Macromolecules</i> , 1991, 24, 140-149.	4.8	380
84	Collapse of grafted polyelectrolyte layer. <i>Journal De Physique II</i> , 1991, 1, 521-526.	0.9	115
85	Theory of Y-shaped and Comb-shaped Polymer Brushes: The Parabolic Potential Framework. <i>Macromolecular Theory and Simulations</i> , 0, , 2100037.	1.4	0