Leonid Ionov

List of Publications by Year
in descending order

123 papers	7,977 citations	36303 51 h-index	49909 87 g-index
129 all docs	129 docs citations	129 times ranked	8755 citing authors

#	Article	IF	Citations
1	Fibrous Scaffolds for Muscle Tissue Engineering Based on Touchâ€Spun Poly(Esterâ€Urethane) Elastomer. Macromolecular Bioscience, 2022, 22, e2100427.	4.1	4
2	A thermo-, near-infrared light- and water-induced shape memory polymer with healing fatigued shape memory performance. Materials Chemistry Frontiers, 2022, 6, 1218-1227.	5.9	7
3	Mechanism of Behavior of Two-Way Shape Memory Polymer under Constant Strain Conditions. Macromolecules, 2022, 55, 1680-1689.	4.8	10
4	Digital Light Processing Bioprinting Advances for Microtissue Models. ACS Biomaterials Science and Engineering, 2022, 8, 1381-1395.	5.2	33
5	Materials for Smart Soft Actuator Systems. Chemical Reviews, 2022, 122, 1349-1415.	47.7	131
6	Smart Mechanically Tunable Surfaces with Shape Memory Behavior and Wetting-Programmable Topography. ACS Applied Materials & Interfaces, 2022, 14, 20208-20219.	8.0	5
7	Selfâ€Healing and Electrical Properties of Viscoelastic Polymerâ€"Carbon Blends. Macromolecular Rapid Communications, 2022, 43, e2200307.	3.9	4
8	Shape-Morphing Fibrous Hydrogel/Elastomer Bilayers Fabricated by a Combination of 3D Printing and Melt Electrowriting for Muscle Tissue Regeneration. ACS Applied Bio Materials, 2021, 4, 1720-1730.	4.6	24
9	4D Biofabrication Using a Combination of 3D Printing and Melt-Electrowriting of Shape-Morphing Polymers. ACS Applied Materials & Interfaces, 2021, 13, 12767-12776.	8.0	62
10	Preface: Forum on Novel Stimuli-Responsive Materials for 3D Printing. ACS Applied Materials & Interfaces, 2021, 13, 12637-12638.	8.0	1
11	Soft Elastic Fibrous Scaffolds for Muscle Tissue Engineering by Touch Spinning. ACS Applied Bio Materials, 2021, 4, 5585-5597.	4.6	10
12	Two-Way Shape Memory Polymers: Evolution of Stress <i>vs</i> Evolution of Elongation. Macromolecules, 2021, 54, 5838-5847.	4.8	14
13	4D biofabrication of skeletal muscle microtissues. Biofabrication, 2020, 12, 015016.	7.1	54
14	Microfabrication Using Shapeâ€Transforming Soft Materials. Advanced Functional Materials, 2020, 30, 1908028.	14.9	43
15	4D Biofabrication of fibrous artificial nerve graft for neuron regeneration. Biofabrication, 2020, 12, 035027.	7.1	38
16	Shape-morphing architectures actuated by Janus fibers. Soft Matter, 2020, 16, 2086-2092.	2.7	3
17	Controllable self-rolling of polyurethane/SiO2 film with differential density. European Polymer Journal, 2019, 119, 32-36.	5.4	4
18	Shape-changing polymers for biomedical applications. Journal of Materials Chemistry B, 2019, 7, 1597-1624.	5.8	103

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19	Lightâ€Responsive Shapeâ€Changing Polymers. Advanced Optical Materials, 2019, 7, 1900067.	7.3	126
20	Effect of Architecture of Thermoresponsive Copolymer Brushes on Switching of Their Adsorption Properties. Macromolecular Chemistry and Physics, 2019, 220, 1900030.	2.2	2
21	4D Biofabrication: 3D Cell Patterning Using Shapeâ€Changing Films. Advanced Functional Materials, 2018, 28, 1706248.	14.9	55
22	Phase Inversion Strategy to Fabricate Porous Carbon for Liâ€S Batteries via Block Copolymer Selfâ€Assembly. Advanced Materials Interfaces, 2018, 5, 1701116.	3.7	18
23	Hierarchical Porous Carbon Cathode for Lithiumâ€"Sulfur Batteries Using Carbon Derived from Hybrid Materials Synthesized by Twin Polymerization. Particle and Particle Systems Characterization, 2018, 35, 1800364.	2.3	18
24	4D Biofabrication: Materials, Methods, and Applications. Advanced Healthcare Materials, 2018, 7, e1800412.	7.6	80
25	Porous carbon prepared from polyacrylonitrile for lithium-sulfur battery cathodes using phase inversion technique. Polymer, 2018, 151, 171-178.	3.8	19
26	Effect of Current Collector on Performance of Liâ€S Batteries. Advanced Materials Interfaces, 2017, 4, 1600811.	3.7	14
27	Ionically conductive polymer/ceramic separator for lithium-sulfur batteries. Energy Storage Materials, 2017, 9, 105-111.	18.0	17
28	Effect of fibrous separators on the performance of lithiumâ€"sulfur batteries. Physical Chemistry Chemical Physics, 2017, 19, 11239-11248.	2.8	19
29	4D Biofabrication Using Shapeâ€Morphing Hydrogels. Advanced Materials, 2017, 29, 1703443.	21.0	315
30	Porous Stimuli-Responsive Self-Folding Electrospun Mats for 4D Biofabrication. Biomacromolecules, 2017, 18, 3178-3184.	5.4	58
31	Separator for lithium-sulfur battery based on polymer blend membrane. Journal of Power Sources, 2017, 363, 384-391.	7.8	21
32	4D Origami by Smart Embroidery. Macromolecular Rapid Communications, 2017, 38, 1700213.	3.9	11
33	Reversibly Actuating Solid Janus Polymeric Fibers. ACS Applied Materials & Interfaces, 2017, 9, 4873-4881.	8.0	29
34	Controlled Retention and Release of Biomolecular Transport Systems Using Shapeâ€Changing Polymer Bilayers. Angewandte Chemie - International Edition, 2016, 55, 16106-16109.	13.8	12
35	Controlled Retention and Release of Biomolecular Transport Systems Using Shapeâ€Changing Polymer Bilayers. Angewandte Chemie, 2016, 128, 16340-16343.	2.0	2
36	Actuating Fibers: Design and Applications. ACS Applied Materials & Interfaces, 2016, 8, 24281-24294.	8.0	86

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37	Holeâ€Programmed Superfast Multistep Folding of Hydrogel Bilayers. Advanced Functional Materials, 2016, 26, 7733-7739.	14.9	77
38	Hybrid Hairy Janus Particles for Anti-Icing and De-Icing Surfaces: Synergism of Properties and Effects. Chemistry of Materials, 2016, 28, 6995-7005.	6.7	44
39	Bienzymatic Sequential Reaction on Microgel Particles and Their Cofactor Dependent Applications. Biomacromolecules, 2016, 17, 1610-1620.	5.4	34
40	Antiâ€Icing Superhydrophobic Surfaces Based on Coreâ€Shell Fossil Particles. Advanced Materials Interfaces, 2015, 2, 1500124.	3.7	42
41	Unusual and Superfast Temperatureâ€Triggered Actuators. Advanced Materials, 2015, 27, 4865-4870.	21.0	246
42	Nanoporous Cathodes for High-Energy Liâ€"S Batteries from Gyroid Block Copolymer Templates. ACS Nano, 2015, 9, 6147-6157.	14.6	82
43	Enhanced Activity of Acetyl CoA Synthetase Adsorbed on Smart Microgel: an Implication for Precursor Biosynthesis. ACS Applied Materials & Interfaces, 2015, 7, 1500-1507.	8.0	29
44	Anisotropic Liquid Microcapsules from Biomimetic Self-Folding Polymer Films. ACS Applied Materials & Interfaces, 2015, 7, 12367-12372.	8.0	22
45	Reversible Thermosensitive Biodegradable Polymeric Actuators Based on Confined Crystallization. Nano Letters, 2015, 15, 1786-1790.	9.1	72
46	Reversibly Cross-Linkable Thermoresponsive Self-Folding Hydrogel Films. Langmuir, 2015, 31, 4552-4557.	3.5	41
47	Thermophilic films and fibers from photo cross-linkable UCST-type polymers. Polymer Chemistry, 2015, 6, 2769-2776.	3.9	44
48	Conductive Nanowires Templated by Molecular Brushes. ACS Applied Materials & Interfaces, 2015, 7, 23305-23309.	8.0	5
49	New insight into icing and de-icing properties of hydrophobic and hydrophilic structured surfaces based on coreâ€"shell particles. Soft Matter, 2015, 11, 9126-9134.	2.7	27
50	Polymeric Actuators. Langmuir, 2015, 31, 5015-5024.	3.5	160
51	Hydrogel-based actuators: possibilities and limitations. Materials Today, 2014, 17, 494-503.	14.2	544
52	Polymer origami: programming the folding with shape. E-Polymers, 2014, 14, 109-114.	3.0	12
53	Stimuliâ€Responsive Microjets with Reconfigurable Shape. Angewandte Chemie - International Edition, 2014, 53, 2673-2677.	13.8	139
54	Highly Efficient Phase Boundary Biocatalysis with Enzymogel Nanoparticles. Angewandte Chemie - International Edition, 2014, 53, 483-487.	13.8	52

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55	Sulfur X-ray absorption fine structure in porous Liâ€“S cathode films measured under argon atmospheric conditions. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2014, 94-95, 22-26.	2.9	6
56	Adaptive PEGâ€“PDMS Brushes: Effect of Architecture on Adhesiveness in Air and under Water. Macromolecules, 2014, 47, 8377-8385.	4.8	11
57	Biodegradable Selfâ€Folding Polymer Films with Controlled Thermoâ€Triggered Folding. Advanced Functional Materials, 2014, 24, 4357-4363.	14.9	69
58	Platelet Janus Particles with Hairy Polymer Shells for Multifunctional Materials. ACS Applied Materials & Interfaces, 2014, 6, 13106-13114.	8.0	59
59	Smart Coreâ€“Shell Microgel Support for Acetyl Coenzyme A Synthetase: A Step Toward Efficient Synthesis of Polyketide-Based Drugs. Biomacromolecules, 2014, 15, 2776-2783.	5.4	21
60	Self-Assembly Behavior of Hairy Colloidal Particles with Different Architectures: Mixed versus Janus. Langmuir, 2014, 30, 12765-12774.	3.5	18
61	Porous carbon materials for Liâ€“S batteries based on resorcinolâ€“formaldehyde resin with inverse opal structure. Journal of Power Sources, 2014, 261, 363-370.	7.8	39
62	In-situ ATR-FTIR for characterization of thin biorelated polymer films. Thin Solid Films, 2014, 556, 1-8.	1.8	22
63	Actuating Porous Polyimide Films. ACS Applied Materials & Interfaces, 2014, 6, 10072-10077.	8.0	59
64	Programmable Patterning of Protein Bioactivity by Visible Light. Nano Letters, 2014, 14, 4050-4057.	9.1	19
65	Stimuliâ€Responsive Janus Particles. Particle and Particle Systems Characterization, 2013, 30, 922-930.	2.3	23
66	Single molecule investigation of complexes of oppositely charged bottle brushes. Soft Matter, 2013, 9, 359-364.	2.7	8
67	Stimuli-responsive hierarchically self-assembled 3D porous polymer-based structures with aligned pores. Journal of Materials Chemistry B, 2013, 1, 1786.	5.8	31
68	Hierarchical Multiâ€Step Folding of Polymer Bilayers. Advanced Functional Materials, 2013, 23, 2295-2300.	14.9	144
69	Biomimetic Hydrogelâ€Based Actuating Systems. Advanced Functional Materials, 2013, 23, 4555-4570.	14.9	411
70	3D Microfabrication using Stimuli-Responsive Self-Folding Polymer Films. Polymer Reviews, 2013, 53, 92-107.	10.9	62
71	Bioinspired Microorigami by Selfâ€Folding Polymer Films. Macromolecular Chemistry and Physics, 2013, 214, 1178-1183.	2.2	34
72	Soft Microorigami: Stimuli-Responsive Self-Folding Polymer Films. Advances in Science and Technology, 2012, 77, 348-353.	0.2	0

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73	Soft Microorigami: Stimuli-Responsive Self-Folding Polymer Films. Materials Research Society Symposia Proceedings, 2012, 1403, 202.	0.1	0
74	Intelligent Materials with Adaptive Adhesion Properties Based on Comb-like Polymer Brushes. Langmuir, 2012, 28, 16444-16454.	3.5	33
75	Shape-Programmed Folding of Stimuli-Responsive Polymer Bilayers. ACS Nano, 2012, 6, 3925-3934.	14.6	236
76	Mixed Polymer Brushes with Locking Switching. ACS Applied Materials & Interfaces, 2012, 4, 483-489.	8.0	72
77	Surfaces with Self-repairable Ultrahydrophobicity Based on Self-organizing Freely Floating Colloidal Particles. Langmuir, 2012, 28, 3679-3682.	3.5	49
78	Biomimetic 3D self-assembling biomicroconstructs by spontaneous deformation of thin polymer films. Journal of Materials Chemistry, 2012, 22, 19366.	6.7	60
79	Self-healing superhydrophobic materials. Physical Chemistry Chemical Physics, 2012, 14, 10497.	2.8	111
80	Self-folding all-polymer thermoresponsive microcapsules. Soft Matter, 2011, 7, 3277.	2.7	313
81	Water-Repellent Textile via Decorating Fibers with Amphiphilic Janus Particles. ACS Applied Materials & Interfaces, 2011, 3, 1216-1220.	8.0	112
82	Soft microorigami: self-folding polymer films. Soft Matter, 2011, 7, 6786.	2.7	220
83	Synthesis of Robust Raspberry-like Particles Using Polymer Brushes. Langmuir, 2011, 27, 3006-3011.	3.5	66
84	Fully Biodegradable Self-Rolled Polymer Tubes: A Candidate for Tissue Engineering Scaffolds. Biomacromolecules, 2011, 12, 2211-2215.	5.4	106
85	A comparative study on switchable adhesion between thermoresponsive polymer brushes on flat and rough surfaces. Soft Matter, 2011, 7, 5691.	2.7	52
86	Selfâ€Rolled Polymer Tubes: Novel Tools for Microfluidics, Microbiology, and Drugâ€Delivery Systems. Macromolecular Rapid Communications, 2011, 32, 1943-1952.	3.9	34
87	Engineering of Ultraâ€Hydrophobic Functional Coatings Using Controlled Aggregation of Bicomponent Core/Shell Janus Particles. Advanced Functional Materials, 2011, 21, 2338-2344.	14.9	56
88	Polymer Tubes by Rolling of Polymer Bilayers. Materials Research Society Symposia Proceedings, 2010, 1272, 1.	0.1	3
89	Studying Kinesin Motors by Optical 3D-Nanometry in Gliding Motility Assays. Methods in Cell Biology, 2010, 95, 247-271.	1.1	47
90	Heavy Meromyosin Head-Surface Distance and Geometrical Arrangement on a Silanized Surface. Biophysical Journal, 2010, 98, 146a.	0.5	0

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91	Protein-Resistant Polymer Coatings Based on Surface-Adsorbed Poly(aminoethyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 742 Td (	5.4	39
92	Heavy Meromyosin Molecules Extending More Than 50 nm above Adsorbing Electronegative Surfaces. Langmuir, 2010, 26, 9927-9936.	3.5	43
93	Switchable Surfaces Based on Freely Floating Colloidal Particles. ACS Applied Materials & Interfaces, 2010, 2, 2944-2948.	8.0	15
94	Biocompatible polymeric materials with switchable adhesion properties. Soft Matter, 2010, 6, 5907.	2.7	64
95	Actively-moving materials based on stimuli-responsive polymers. Journal of Materials Chemistry, 2010, 20, 3382.	6.7	83
96	Temperature controlled encapsulation and release using partially biodegradable thermo-magneto-sensitive self-rolling tubes. Soft Matter, 2010, 6, 2633.	2.7	140
97	3D Nanometer Tracking of Motile Microtubules on Reflective Surfaces. Small, 2009, 5, 1732-1737.	10.0	39
98	Environment-Friendly Photolithography Using Poly(<i>N</i>-isopropylacrylamide)-Based Thermoresponsive Photoresists. Journal of the American Chemical Society, 2009, 131, 13315-13319.	13.7	73
99	Chemical and Structural Changes in a pH-Responsive Mixed Polyelectrolyte Brush Studied by Infrared Ellipsometry. Langmuir, 2009, 25, 10987-10991.	3.5	49
100	Stimuli-responsive command polymer surface for generation of protein gradients. Biointerphases, 2009, 4, FA45-FA49.	1.6	43
101	Wetting on Fractal Superhydrophobic Surfaces from â€œCoreâ^'Shellâ€•Particles: A Comparison of Theory and Experiment. Langmuir, 2009, 25, 3132-3136.	3.5	41
102	Biotemplated synthesis of stimuli-responsive nanopatterned polymer brushes on microtubules. Soft Matter, 2009, 5, 67-71.	2.7	25
103	Temperatureâ€Induced Sizeâ€Control of Bioactive Surface Patterns. Advanced Functional Materials, 2008, 18, 1501-1508.	14.9	44
104	Stimuli-Responsive Bicomponent Polymer Janus Particles by â€œGrafting fromâ€/â€œGrafting toâ€•Approaches. Macromolecules, 2008, 41, 9669-9676.	4.8	192
105	Wetting on Regularly Structured Surfaces from â€œCoreâ^'Shellâ€•Particles: Theoretical Predictions and Experimental Findings. Langmuir, 2008, 24, 11895-11901.	3.5	36
106	Ultrathin responsive polyelectrolyte brushes studied by infrared synchrotron mapping ellipsometry. Applied Physics Letters, 2008, 92, .	3.3	20
107	In Situ Infrared Ellipsometric Study of Stimuli-Responsive Mixed Polyelectrolyte Brushes. Analytical Chemistry, 2007, 79, 7676-7682.	6.5	54
108	Simple and Fast Method for the Fabrication of Switchable Bicomponent Micropatterned Polymer Surfaces. Langmuir, 2007, 23, 5205-5209.	3.5	41

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109	Chemical and Biological-Ecological Aspects of Risk Assessment for Lewisite Destruction. , 2006, , 217-221.		1
110	Reversible Switching of Microtubule Motility Using Thermoresponsive Polymer Surfaces. Nano Letters, 2006, 6, 1982-1987.	9.1	123
111	Surface functionalization by smart coatings: Stimuli-responsive binary polymer brushes. Progress in Organic Coatings, 2006, 55, 168-174.	3.9	127
112	Smart Microfluidic Channels. Advanced Functional Materials, 2006, 16, 1153-1160.	14.9	157
113	Fast and Spatially Resolved Environmental Probing Using Stimuli-Responsive Polymer Layers and Fluorescent Nanocrystals. Advanced Materials, 2006, 18, 1453-1457.	21.0	99
114	Gradient Stimuli-Responsive Polymer Grafted Layers. ACS Symposium Series, 2005, , 68-83.	0.5	4
115	Size Sorting of Protein Assemblies Using Polymeric Gradient Surfaces. Nano Letters, 2005, 5, 1910-1914.	9.1	65
116	Stimuli-Responsive Mixed Grafted Polymer Films with Gradually Changing Properties:Â Direct Determination of Chemical Composition. Langmuir, 2005, 21, 8711-8716.	3.5	42
117	Mixed Polymer Brushes: Switching of Surface Behavior and Chemical Patterning at the Nanoscale. , 2005, , 403-425.		5
118	Gradient Mixed Brushes:â€‰ â€œGrafting Toâ€•Approach. Macromolecules, 2004, 37, 7421-7423.	4.8	104
119	Gradient Polymer Layers byâ€œGrafting Toâ€•Approach. Macromolecular Rapid Communications, 2004, 25, 360-365.	3.9	100
120	Inverse and Reversible Switching Gradient Surfaces from Mixed Polyelectrolyte Brushes. Langmuir, 2004, 20, 9916-9919.	3.5	114
121	Switching and structuring of binary reactive polymer brush layers. Macromolecular Symposia, 2004, 210, 229-235.	0.7	20
122	Reversible Chemical Patterning on Stimuli-Responsive Polymer Film:â€‰ Environment-Responsive Lithography. Journal of the American Chemical Society, 2003, 125, 8302-8306.	13.7	158
123	Regular Patterned Surfaces from Core-Shell Particles. Preparation and Characterization. , 0, , 72-81.		19