

Igor Luzinov

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3163769/publications.pdf>

Version: 2024-02-01

118
papers

9,595
citations

136950

32
h-index

36028

97
g-index

122
all docs

122
docs citations

122
times ranked

13357
citing authors

#	ARTICLE	IF	CITATIONS
1	Emerging applications of stimuli-responsive polymer materials. <i>Nature Materials</i> , 2010, 9, 101-113.	27.5	5,007
2	Adaptive and responsive surfaces through controlled reorganization of interfacial polymer layers. <i>Progress in Polymer Science</i> , 2004, 29, 635-698.	24.7	544
3	Poly(Vinyl Pyridine) as a Universal Surface Modifier for Immobilization of Nanoparticles. <i>Journal of Physical Chemistry B</i> , 2002, 106, 1280-1285.	2.6	290
4	Polymer Brushes by the "Grafting to" Method. <i>Macromolecular Rapid Communications</i> , 2011, 32, 859-869.	3.9	270
5	Responsive brush layers: from tailored gradients to reversibly assembled nanoparticles. <i>Soft Matter</i> , 2008, 4, 714.	2.7	234
6	Epoxy-Terminated Self-Assembled Monolayers: Molecular Glues for Polymer Layers. <i>Langmuir</i> , 2000, 16, 504-516.	3.5	187
7	Surface modification of microporous PVDF membranes by ATRP. <i>Journal of Membrane Science</i> , 2005, 262, 81-90.	8.2	175
8	Synthesis and Surface Morphology of High-Density Poly(ethylene glycol) Grafted Layers. <i>Langmuir</i> , 2003, 19, 10179-10187.	3.5	158
9	Stimuli-Responsive Colloidal Systems from Mixed Brush-Coated Nanoparticles. <i>Advanced Functional Materials</i> , 2007, 17, 2307-2314.	14.9	149
10	Mid-infrared materials and devices on a Si platform for optical sensing. <i>Science and Technology of Advanced Materials</i> , 2014, 15, 014603.	6.1	143
11	Polystyrene Layers Grafted to Macromolecular Anchoring Layer. <i>Macromolecules</i> , 2003, 36, 6519-6526.	4.8	134
12	Composition effect on the core-shell morphology and mechanical properties of ternary polystyrene/styrene-butadiene rubber/polyethylene blends. <i>Polymer</i> , 1999, 40, 2511-2520.	3.8	107
13	Gradient Polymer Layers by "Grafting To" Approach. <i>Macromolecular Rapid Communications</i> , 2004, 25, 360-365.	3.9	100
14	Macromolecular anchoring layers for polymer grafting: comparative study. <i>Polymer</i> , 2006, 47, 272-279.	3.8	91
15	Effect of Macromolecular Anchoring Layer Thickness and Molecular Weight on Polymer Grafting. <i>Macromolecules</i> , 2004, 37, 9538-9545.	4.8	86
16	Ultrahydrophobic textile surface via decorating fibers with monolayer of reactive nanoparticles and non-fluorinated polymer. <i>Chemical Communications</i> , 2007, , 4510.	4.1	80
17	To Patterned Binary Polymer Brushes via Capillary Force Lithography and Surface-Initiated Polymerization. <i>Journal of the American Chemical Society</i> , 2006, 128, 8106-8107.	13.7	74
18	Synthetic Hydrophilic Materials with Tunable Strength and a Range of Hydrophobic Interactions. <i>Advanced Functional Materials</i> , 2010, 20, 2240-2247.	14.9	69

#	ARTICLE	IF	CITATIONS
37	Recent advances towards applications of molecular bottlebrushes and their conjugates. <i>Current Opinion in Solid State and Materials Science</i> , 2019, 23, 50-61.	11.5	31
38	Reconfigurable Anisotropic Coatings via Magnetic Field-Directed Assembly and Translocation of Locking Magnetic Chains. <i>Advanced Functional Materials</i> , 2014, 24, 4738-4745.	14.9	28
39	RNA Interference Using <i>c-Myc</i> -Conjugated Nanoparticles Suppresses Breast and Colorectal Cancer Models. <i>Molecular Cancer Therapeutics</i> , 2015, 14, 1259-1269.	4.1	26
40	In Situ Trace Analysis of Oil in Water with Mid-Infrared Fiberoptic Chemical Sensors. <i>Analytical Chemistry</i> , 2012, 84, 1274-1280.	6.5	25
41	Functional Reactive Polymer Electrospun Matrix. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 4934-4939.	8.0	24
42	Biodegradable plastics from animal protein coproducts: Feathermeal. <i>Journal of Applied Polymer Science</i> , 2008, 110, 459-467.	2.6	23
43	Synthesis and characterization of nanorods for magnetic rotational spectroscopy. <i>Journal of Applied Physics</i> , 2015, 118, .	2.5	23
44	Enhancing Mechanical and Thermal Properties of Epoxy Nanocomposites via Alignment of Magnetized SiC Whiskers. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 22927-22940.	8.0	23
45	Intralayer reorganization of photochromic molecular films. <i>Journal of Materials Science Letters</i> , 2001, 20, 873-876.	0.5	20
46	Colloidal Occlusion Template Method for Micromanufacturing of Omniphobic Surfaces. <i>Advanced Functional Materials</i> , 2013, 23, 870-877.	14.9	20
47	Thermal Stabilization of Enzymes with Molecular Brushes. <i>ACS Catalysis</i> , 2017, 7, 8675-8684.	11.2	20
48	Ultrahydrophobic Textiles Using Nanoparticles: Lotus Approach. <i>Journal of Engineered Fibers and Fabrics</i> , 2008, 3, 155892500800300.	1.0	19
49	Ultrasonic curing of one-part epoxy system. <i>Journal of Composite Materials</i> , 2011, 45, 2217-2224.	2.4	19
50	Label-Free Water Sensors Using Hybrid Polymer-Dielectric Mid-Infrared Optical Waveguides. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 11189-11194.	8.0	19
51	Toward a Long-Chain Perfluoroalkyl Replacement: Water and Oil Repellency of Polyethylene Terephthalate (PET) Films Modified with Perfluoropolyether-Based Polyesters. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 24318-24330.	8.0	19
52	Adhesion and Stability of Nanocellulose Coatings on Flat Polymer Films and Textiles. <i>Molecules</i> , 2020, 25, 3238.	3.8	19
53	In-situ IR synchrotron mapping ellipsometry on stimuli-responsive PAA-b-PS/PEG mixed polymer brushes. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 197-199.	0.8	18
54	Collective alignment of nanorods in thin Newtonian films. <i>Soft Matter</i> , 2013, 9, 8532.	2.7	18

#	ARTICLE	IF	CITATIONS
55	Tetraarylphosphonium polyelectrolyte chromophores: synthesis, stability, photophysics, film morphology and critical surface energy. <i>Polymer Chemistry</i> , 2015, 6, 900-908.	3.9	18
56	Fabrication of optically active flexible polymer films with embedded chain-like arrays of silver nanoparticles. <i>Chemical Communications</i> , 2008, , 1284.	4.1	17
57	Water Aided Fabrication of Whey and Albumin Plastics. <i>Journal of Polymers and the Environment</i> , 2012, 20, 681-689.	5.0	17
58	Surface Morphology of Mechanically Heterogeneous Ultrathin Polymer Films. <i>Langmuir</i> , 2003, 19, 118-124.	3.5	16
59	Anomalous Currents in Low Voltage Polymer Tantalum Capacitors. <i>ECS Journal of Solid State Science and Technology</i> , 2013, 2, N197-N204.	1.8	16
60	Kinetics of Evaporation and Gel Formation in Thin Films of Ceramic Precursors. <i>Langmuir</i> , 2014, 30, 14638-14647.	3.5	16
61	Stability of Grafted Polymer Nanoscale Films toward Gamma Irradiation. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 19455-19465.	8.0	16
62	Extraction of metals from aqueous systems employing capillary-channeled polymer (C-CP) fibers modified with poly(acrylic acid) (PAA). <i>Analytical Methods</i> , 2010, 2, 461.	2.7	15
63	Reversible submergence of nanoparticles into ultrathin block copolymer films. <i>Soft Matter</i> , 2011, 7, 2538.	2.7	15
64	Surface Plasmon Modes of Sandwich-Like Metal-Dielectric Nanostructures. <i>Plasmonics</i> , 2015, 10, 655-665.	3.4	15
65	En Route to Practicality of the Polymer Grafting Technology: One-Step Interfacial Modification with Amphiphilic Molecular Brushes. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 13941-13952.	8.0	15
66	Bilayer nanocomposite molecular coatings from elastomeric/rigid polymers: fabrication, morphology, and micromechanical properties. <i>Macromolecular Symposia</i> , 2001, 167, 227-242.	0.7	14
67	Capacitance Stability in Polymer Tantalum Capacitors with PEDOT Counter Electrodes. <i>ECS Journal of Solid State Science and Technology</i> , 2017, 6, N104-N110.	1.8	14
68	Highly Oil-Repellent Thermoplastic Boundaries via Surface Delivery of CF ₃ Groups by Molecular Bottlebrush Additives. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 38626-38637.	8.0	14
69	Electrical conductivity of insulating polymer nanoscale layers: environmental effects. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 1977-1986.	2.8	13
70	Multi-Frequency Measurement of Volatile Organic Compounds With a Radio-Frequency Interferometer. <i>IEEE Sensors Journal</i> , 2017, 17, 3323-3331.	4.7	13
71	Towards universal enrichment nanocoating for IR-ATR waveguides. <i>Chemical Communications</i> , 2011, 47, 9104.	4.1	11
72	Gradient Polymer Nanofoams for Encrypted Recording of Chemical Events. <i>ACS Nano</i> , 2016, 10, 10716-10725.	14.6	11

#	ARTICLE	IF	CITATIONS
73	Zinc oxide: reduced graphene oxide nanocomposite film for heterogeneous photocatalysis. Optical and Quantum Electronics, 2020, 52, 1.	3.3	11
74	Temperature controlled shape change of grafted nanofoams. Soft Matter, 2014, 10, 2567.	2.7	10
75	The effect of polymer additives on the critical thicknesses of mullite thin films obtained from the monophasic sol-gel precursors. Journal of Sol-Gel Science and Technology, 2016, 80, 285-296.	2.4	10
76	Towards scalable fabrication of ultrasmooth and porous thin carbon films. Carbon, 2016, 96, 184-195.	10.3	10
77	Surface modification of polypropylene surgical meshes for improving adhesion with poloxamine hydrogel adhesive. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 1047-1055.	3.4	10
78	A gradient field defeats the inherent repulsion between magnetic nanorods. Royal Society Open Science, 2014, 1, 140271.	2.4	9
79	Mullite-Nickel Magnetic Nanocomposite Fibers Obtained from Electrospinning Followed by Thermal Reduction. Journal of the American Ceramic Society, 2016, 99, 1504-1511.	3.8	9
80	Dense and crack-free mullite films obtained from a hybrid sol-gel/dip-coating approach. Journal of Materials Research, 2017, 32, 1665-1673.	2.6	9
81	Attainment of Water and Oil Repellency for Engineering Thermoplastics without Long-Chain Perfluoroalkyls: Perfluoropolyether-Based Triblock Polyester Additives. Langmuir, 2018, 34, 12934-12946.	3.5	9
82	Polymeric Membranes: Surface Modification by "Grafting to" Method and Fabrication of Multilayered Assemblies. ACS Symposium Series, 2009, , 289-305.	0.5	8
83	Fabrication and characterization of GaP/polymer nanocomposites for advanced light emissive device structures. Journal of Nanoparticle Research, 2011, 13, 5565-5570.	1.9	8
84	Phosphonium polyelectrolytes: influence of diphosphine spacer on layer-by-layer assembly with anionic conjugated polymers. Polymer International, 2015, 64, 1381-1388.	3.1	8
85	Segregated Polymer Brushes via "Grafting to" and ATRP "Grafting from" Chain Anchoring. ACS Symposium Series, 2009, , 215-230.	0.5	7
86	Designing Highly Thermostable Lysozyme-Copolymer Conjugates: Focus on Effect of Polymer Concentration. Biomacromolecules, 2018, 19, 1175-1188.	5.4	7
87	Towards sensor applications of a polymer/Ag nanoparticle nanocomposite film. RSC Advances, 2019, 9, 8498-8506.	3.6	7
88	Laser-Driven Hybridization of a Surface Plasmon Resonance Collective Mode in a Monolayer of Silver Nanoparticles. Plasmonics, 2017, 12, 1571-1580.	3.4	6
89	Electrospray Deposition of Uniform Thickness Ge ₂₃ Sb ₇ S ₇₀ and As ₄₀ S ₆₀ Chalcogenide Glass Films. Journal of Visualized Experiments, 2016, ...	0.3	6
90	Biomimetic Cellulosomes Assembled on Molecular Brush Scaffolds: Random Complexes vs Enzyme Mixtures. ACS Applied Polymer Materials, 2021, 3, 1840-1853.	4.4	5

#	ARTICLE	IF	CITATIONS
91	Gradient Stimuli-Responsive Polymer Grafted Layers. ACS Symposium Series, 2005, , 68-83.	0.5	4
92	Polymer Brushes by Atom Transfer Radical Polymerization Initiated from Macroinitiator Synthesized on the Surface. , 2005, , 69-86.		4
93	Perfluoropolyether-based oleophobic additives: Influence of molecular weight distribution on wettability of polyethylene terephthalate films. Journal of Fluorine Chemistry, 2021, 244, 109747.	1.7	4
94	Fabrication of Porous Carbon Films and Their Impact on Carbon/Polypropylene Interfacial Bonding. Journal of Composites Science, 2021, 5, 108.	3.0	4
95	Reliability and Failure Mode in Solid Tantalum Capacitors. ECS Journal of Solid State Science and Technology, 2021, 10, 045007.	1.8	4
96	Mesoscale Modeling of Agglomeration of Molecular Bottlebrushes: Focus on Conformations and Clustering Criteria. Polymers, 2022, 14, 2339.	4.5	4
97	Coatings via Self-Assembly of Smart Nanoparticles. ACS Symposium Series, 2009, , 145-157.	0.5	3
98	Tuning Fluorescent Response of Nanoscale Film With Polymer Grafting. Macromolecular Rapid Communications, 2012, 33, 237-241.	3.9	3
99	Measuring flexural rigidity of mullite microfibers using magnetic droplets. Journal of Applied Physics, 2015, 117, 214304.	2.5	3
100	Effect of number of "CF ₃ groups in tails of polyester on surface wettability of coatings: synthesis and characterization of PFPE based polyesters with three -CF ₃ groups in tails. Journal of Polymer Research, 2020, 27, 1.	2.4	3
101	Microthermomechanical Probing of Thin Composite Polymer Films. ACS Symposium Series, 2000, , 254-273.	0.5	2
102	Block Copolymer Nanocomposite Films Containing Silver Nanoparticles. ACS Symposium Series, 2006, , 149-166.	0.5	2
103	Polymer Anchoring Layer for Atomic Force Microscopy Studies of Nanoparticle-Substrate Interactions. Journal of Macromolecular Science - Physics, 2007, 46, 231-244.	1.0	2
104	Environmental Stability of Polymer Tantalum Capacitors. ECS Journal of Solid State Science and Technology, 2020, 9, 083005.	1.8	2
105	Photolithographic Fabrication of P3HT Based Organic Thin-Film Transistors with High Mobility. ECS Journal of Solid State Science and Technology, 2022, 11, 025008.	1.8	2
106	AFM Measurements of Adhesion between Actual CMP Slurry Particles and Various Substrates. Materials Research Society Symposia Proceedings, 2005, 867, 251.	0.1	1
107	AFM Measurements of Adhesion between CMP Slurry Particles and Copper. Materials Research Society Symposia Proceedings, 2006, 914, 1.	0.1	1
108	Composite polymer core "ceria shell abrasive particles during silicon oxide CMP. Materials Research Society Symposia Proceedings, 2007, 991, 1.	0.1	1

#	ARTICLE	IF	CITATIONS
109	Synthesis of poly(styrene-block-ethylene oxide) copolymers by anionic polymerization and acid cleavage into its constituent homopolymers for the formation of ordered nanoporous thin films. E-Polymers, 2008, 8, .	3.0	1
110	Effect of Gamma Exposure on Chalcogenide Glass Films for Microphotonic Devices. , 2016, , .		1
111	Magnetic Submicron Mullite Coatings with Oriented SiC Whiskers. ACS Applied Materials & Interfaces, 2018, 10, 11907-11919.	8.0	1
112	Towards a Long-Chain Perfluoroalkyl Replacement: Water and Oil Repellent Perfluoropolyether-Based Polyurethane Oligomers. Polymers, 2021, 13, 1128.	4.5	1
113	Bilayer nanocomposite molecular coatings from elastomeric/rigid polymers: fabrication, morphology, and micromechanical properties. , 2001, 167, 227.		1
114	Toward the Replacement of Long-Chain Perfluoroalkyl Compounds: Perfluoropolyether-Based Low Surface Energy Grafted Nanocoatings. ACS Applied Polymer Materials, 2022, 4, 980-986.	4.4	1
115	Measurement of Interactions between Abrasive Silica Particles and Copper, Titanium, Tungsten and Tantalum. Materials Research Society Symposia Proceedings, 2007, 991, 1.	0.1	0
116	A probabilistic model for the permeation of gases through microporous membranes. Journal of the Textile Institute, 2010, 101, 583-594.	1.9	0
117	Visible light trimming of coupled ring-resonator filters in As ₂ S ₃ chalcogenide glass technology. , 2011, , .		0
118	Polymer/Ag Nanoparticles Composite for Chloroform Detection. , 2018, , .		0