## Marat Gallyamov

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Swelling and impregnation of polystyrene using supercritical carbon dioxide. Journal of Supercritical Fluids, 2003, 26, 263-273.	1.6	88
2	Reversible Collapse of Brushlike Macromolecules in Ethanol and Water Vapours as Revealed by Real-Time Scanning Force Microscopy. Chemistry - A European Journal, 2004, 10, 4599-4605.	1.7	72
3	Self-Assembly of the Perfluoroalkyl-Alkane F14H20in Ultrathin Films. Langmuir, 2005, 21, 2308-2316.	1.6	66
4	Poly(methyl methacrylate) and Poly(butyl methacrylate) Swelling in Supercritical Carbon Dioxide. Macromolecules, 2002, 35, 934-940.	2.2	61
5	Atomic force microscopy examination of tobacco mosaic virus and virion RNA. FEBS Letters, 1998, 425, 217-221.	1.3	60
6	A biphase H <sub>2</sub> O/CO <sub>2</sub> system as a versatile reaction medium for organic synthesis. RSC Advances, 2015, 5, 103573-103608.	1.7	51
7	Performance of high temperature fuel cells with different types of PBI membranes as analysed by impedance spectroscopy. International Journal of Hydrogen Energy, 2012, 37, 2596-2602.	3.8	50
8	Collagen tissue treated with chitosan solutions in carbonic acid for improved biological prosthetic heart valves. Materials Science and Engineering C, 2014, 37, 127-140.	3.8	46
9	Stabilization of Chitosan Aggregates at the Nanoscale in Solutions in Carbonic Acid. Macromolecules, 2014, 47, 5749-5758.	2.2	46
10	Real-Time Scanning Force Microscopy of Macromolecular Conformational Transitions.  Macromolecular Rapid Communications, 2004, 25, 1703-1707.	2.0	45
11	Conformational dynamics of single molecules visualized in real time by scanning force microscopy: macromolecular mobility on a substrate surface in different vapours. Journal of Microscopy, 2004, 215, 245-256.	0.8	39
12	Advanced porous polybenzimidazole membranes for vanadium redox batteries synthesized via a supercritical phase-inversion method. Journal of Supercritical Fluids, 2018, 137, 111-117.	1.6	37
13	High-Quality Ultrathin Polymer Films Obtained by Deposition from Supercritical Carbon Dioxide As Imaged by Atomic Force Microscopy. Langmuir, 2002, 18, 6928-6934.	1.6	36
14	Scanning Force Microscopy as Applied to Conformational Studies in Macromolecular Research. Macromolecular Rapid Communications, 2011, 32, 1210-1246.	2.0	36
15	Influence of aminosilane precursor concentration on physicochemical properties of composite Nafion membranes for vanadium redox flow battery applications. Journal of Power Sources, 2017, 340, 32-39.	4.0	33
16	Structural organization of bacterial cellulose: The origin of anisotropy and layered structures. Carbohydrate Polymers, 2020, 237, 116140.	5.1	33
17	Novel composite Zr/PBI-O-PhT membranes for HT-PEFC applications. Beilstein Journal of Nanotechnology, 2013, 4, 481-492.	1.5	31
18	Durable crosslinked omniphobic coatings on textiles via supercritical carbon dioxide deposition. Journal of Supercritical Fluids, 2018, 133, 30-37.	1.6	29

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19	Real-Time Imaging of the Coil-Globule Transition of Single Adsorbed Poly(2-vinylpyridine) Molecules. Macromolecular Rapid Communications, 2005, 26, 456-460.	2.0	27
20	A scanning force microscopy study on the motion of single brush-like macromolecules on a silicon substrate induced by coadsorption of small molecules. Physical Chemistry Chemical Physics, 2007, 9, 346-352.	1.3	26
21	Formation of superhydrophobic surfaces by the deposition of coatings from supercritical carbon dioxide. Colloid Journal, 2007, 69, 411-424.	0.5	25
22	Chitosan nanostructures deposited from solutions in carbonic acid on a model substrate as resolved by AFM. Colloid and Polymer Science, 2012, 290, 1471-1480.	1.0	24
23	Vaporâ€induced spreading dynamics of adsorbed linear and brushâ€like macromolecules as observed by environmental SFM: Polymer chain statistics and scaling exponents. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 2368-2379.	2.4	21
24	Structural and electrocatalytic features of Pt/C catalysts fabricated in supercritical carbon dioxide. Journal of Solid State Electrochemistry, 2011, 15, 623-633.	1.2	21
25	Interplay between Folding/Unfolding and Helix/Coil Transitions in Giant DNA. Biomacromolecules, 2000, 1, 597-603.	2.6	20
26	Polymer materials for electrochemical applications: Processing in supercritical fluids. Journal of Supercritical Fluids, 2017, 127, 229-246.	1.6	20
27	Supercritical carbon dioxide: A reactive medium for chemical processes involving fluoropolymers. Russian Journal of General Chemistry, 2009, 79, 578-588.	0.3	19
28	Novel polyolefin/silicon dioxide/H3PO4 composite membranes with spatially heterogeneous structure for phosphoric acid fuel cell. International Journal of Hydrogen Energy, 2013, 38, 4132-4143.	3.8	19
29	Modification of Nafion with silica nanoparticles in supercritical carbon dioxide for electrochemical applications. Journal of Membrane Science, 2018, 564, 106-114.	4.1	19
30	A new approach to purification of bacterial cellulose membranes: What happens to bacteria in supercritical media?. Journal of Supercritical Fluids, 2019, 147, 59-69.	1.6	19
31	Self-assembly of (perfluoroalkyl)alkanes on a substrate surface from solutions in supercritical carbon dioxide. Physical Chemistry Chemical Physics, 2006, 8, 2642-2649.	1.3	18
32	Synthesis and properties of fluorinated derivatives of carbosilane dendrimers of high generations. Polymer Science - Series A, 2006, 48, 1240-1247.	0.4	18
33	Synthesis of highâ€molecularâ€weight linear methacrylate copolymers with spiropyran side groups: Conformational changes of single molecules in solution and on surfaces. Journal of Polymer Science Part A, 2009, 47, 1274-1283.	2.5	18
34	Organosilicon compounds in supercritical carbon dioxide: Synthesis, polymerization, modification, and production of new materials. Polymer Science - Series B, 2016, 58, 235-270.	0.3	18
35	Thermal oxidation of polypropylene catalyzed by manganese oxide aerogel in oxygen-enriched supercritical carbon dioxide. Journal of Supercritical Fluids, 2020, 158, 104744.	1.6	18
36	Synthesis of polyimides in supercritical carbon dioxide. Journal of Supercritical Fluids, 2003, 27, 121-130.	1.6	17

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37	lon transport properties of porous polybenzimidazole membranes for vanadium redox flow batteries obtained via supercritical drying of swollen polymer films. Journal of Applied Polymer Science, 2018, 135, 46262.	1.3	16
38	A study of the hydrosilylation approach to a one-pot synthesis of silicone aerogels in supercritical CO2. Journal of Supercritical Fluids, 2018, 133, 512-518.	1.6	16
39	Superhydrophobic coatings on textiles based on novel poly(perfluoro-tert-hexylbutyl) Tj ETQq1 1 0.784314 rgBT carbon dioxide. Journal of Supercritical Fluids, 2019, 149, 34-41.	Overlock	2 10 Tf 50 66 16
40	Hydrophobic properties of carbon fabric with Teflon AF 2400 fluoropolymer coating deposited from solutions in supercritical carbon dioxide. Russian Journal of Physical Chemistry B, 2011, 5, 1106-1115.	0.2	15
41	Synthesis of polyimides in supercritical carbon dioxide. Journal of Supercritical Fluids, 2003, 26, 147-156.	1.6	14
42	Synthesis and SFM Study of Comb-Like Poly(4-vinylpyridinium) Salts and Their Complexes with Surfactants. Macromolecular Rapid Communications, 2006, 27, 1048-1053.	2.0	14
43	Chitosan composites with Ag nanoparticles formed in carbonic acid solutions. Carbohydrate Polymers, 2018, 190, 103-112.	5.1	14
44	Conformational Behaviour of Comb-Like Poly(4-vinylpyridinium) Salts and their Complexes with Surfactants in Solution and on a Flat Surface. Macromolecular Chemistry and Physics, 2007, 208, 164-174.	1.1	13
45	Individual bottle brush molecules in dense 2D layers restoring high degree of extension after collapse-decollapse cycle: Directly measured scaling exponent. European Physical Journal E, 2009, 29, 73-85.	0.7	13
46	Celgard-silica composite membranes with enhanced wettability and tailored pore sizes prepared by supercritical carbon dioxide assisted impregnation with silanes. Journal of Supercritical Fluids, 2019, 150, 56-64.	1.6	13
47	Chitosan Molecules Deposited from Supercritical Carbon Dioxide on a Substrate: Visualization and Conformational Analysis. Macromolecular Chemistry and Physics, 2008, 209, 2204-2212.	1.1	11
48	Direct deposition of chitosan macromolecules on a substrate from solutions in supercritical carbon dioxide: Solubility and conformational analysis. European Polymer Journal, 2012, 48, 906-918.	2.6	11
49	Hydrolytic polycondensation of diethoxydimethylsilane in carbonic acid. RSC Advances, 2015, 5, 5664-5666.	1.7	11
50	Synthesis of manganese oxide electrocatalysts in supercritical carbon dioxide. Journal of Materials Science, 2018, 53, 9449-9462.	1.7	11
51	Scanning tunneling microscopy study of cytochrome P450 2B4 incorporated in proteoliposomes. Biochimie, 1996, 78, 780-784.	1.3	10
52	Composite Langmuir–Blodgett films of behenic acid and CdTe nanoparticles: the structure and reorganization on solid surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2002, 203, 233-241.	2.3	10
53	Synthesis of a Carbosilane Dendrimer with Fluorocarbon Substituents at the Silicon Atoms in the Surface Layer of the Molecular Structure. Doklady Chemistry, 2005, 403, 155-159.	0.2	10
54	Electrocatalysts for fuel cells synthesized in supercritical carbon dioxide. Nanotechnologies in Russia, 2011, 6, 311-322.	0.7	10

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55	Degradation of High Temperature Polymer Electrolyte Fuel Cell Cathode Material as Affected by Polybenzimidazole. Journal of the Electrochemical Society, 2015, 162, F587-F595.	1.3	10
56	Hydrolytic polycondensation of methylalkoxysilanes under pressure. Russian Chemical Bulletin, 2016, 65, 1104-1109.	0.4	10
57	Chitosan coatings with enhanced biostability <i>in vivo</i> . Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 270-277.	1.6	10
58	Composite Nafion-based membranes with nanosized tungsten oxides prepared in supercritical carbon dioxide. Journal of Membrane Science, 2020, 609, 118244.	4.1	10
59	Morphology and Properties of Flame-Retardant Superhydrophobic Polymer Coatings Deposited on Cotton Fabrics from Supercritical CO <sub>2</sub> . ACS Applied Polymer Materials, 2020, 2, 2919-2926.	2.0	10
60	Green approach for fabrication of bacterial cellulose-chitosan composites in the solutions of carbonic acid under high pressure CO2. Carbohydrate Polymers, 2021, 258, 117614.	5.1	10
61	DNA-surfactant complexes in organic media. Progress in Colloid and Polymer Science, 1997, 106, 198-203.	0.5	10
62	Novel electrolyte additive of graphene oxide for prolonging the lifespan of zinc-ion batteries. Nanotechnology, 2022, 33, 125401.	1.3	10
63	Interpretation of SPM images of Langmuir–Blodgett films based on long-chain carboxylic acids. Thin Solid Films, 2000, 359, 98-103.	0.8	9
64	Organometallic Pt precursor on graphite substrate: deposition from SC CO2, reduction and morphology transformation as revealed by SFM. Journal of Nanoparticle Research, 2012, 14, 1.	0.8	9
65	Sharp diffusion front in diffusion problem with change of state. European Physical Journal E, 2013, 36, 92.	0.7	9
66	Hydrothermal Transformations of Ascorbic Acid. Russian Journal of General Chemistry, 2017, 87, 2858-2864.	0.3	8
67	The mechanism of stabilization of silver nanoparticles by chitosan in carbonic acid solutions. Colloid and Polymer Science, 2020, 298, 1135-1148.	1.0	8
68	Active layer materials coated with Teflon AF nano-films deposited from solutions in supercritical CO2 for fuel cell applications. International Journal of Hydrogen Energy, 2013, 38, 10592-10601.	3.8	7
69	Chemical recycling of polyethylene in oxygen-enriched supercritical CO2. Journal of Supercritical Fluids, 2022, 181, 105503.	1.6	7
70	Organosilicone Compounds in Supercritical Carbon Dioxide. Polymers, 2022, 14, 2367.	2.0	7
71	Reorganization of Langmuir monolayers on solid surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2002, 198-200, 231-238.	2.3	6
72	Title is missing!. Doklady Physical Chemistry, 2003, 392, 217-220.	0.2	6

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73	Structure of composites prepared via polypyrrole synthesis in supercritical CO2 on microporous polyethylene. Polymer Science - Series A, 2006, 48, 827-840.	0.4	6
74	Supramolecular Assembly of Defined Polymer Nanoobjects. Macromolecular Chemistry and Physics, 2007, 208, 1409-1415.	1.1	6
75	Electron microscopy of the coating morphology of pericardum tissue with chitosan ionogen derivatives. Bulletin of the Russian Academy of Sciences: Physics, 2009, 73, 468-470.	0.1	6
76	Chitosan Macromolecules on a Substrate: Deposition from Solutions in sc CO <sub>2</sub> and Reorganisation in Vapours. Macromolecular Symposia, 2010, 296, 531-540.	0.4	6
77	Formation of Easy-to-Recover Polystyrene- <i>block</i> -Poly(4-vinylpyridine) Micelles Decorated with Pd Nanoparticles in Solutions of Self-Neutralizing Carbonic Acid. ACS Macro Letters, 2015, 4, 661-664.	2.3	6
78	Non-catalytic hydrolytic polycondensation of dialkoxydiorganosilanes under elevated pressure. Russian Chemical Bulletin, 2017, 66, 355-361.	0.4	6
79	Synthesis and properties of carbosilane dendrimers with perfluorohexyl groups in the outer layer of the molecular structure. Russian Chemical Bulletin, 2018, 67, 1440-1444.	0.4	6
80	Incorporation of Thiol-Stabilized CdTe Nanoclusters into Langmuir-Blodgett Films. Journal of Inclusion Phenomena and Macrocyclic Chemistry, 1999, 35, 157-164.	1.6	5
81	Pretreatment of Celgard Matrices with Peroxycarbonic Acid for Subsequent Deposition of a Polydopamine Layer. Colloid Journal, 2018, 80, 761-770.	0.5	5
82	Synthesis of carbon quantum dots in a Nafion matrix: Precursor effect on the ion transport properties. Mendeleev Communications, 2018, 28, 251-253.	0.6	5
83	Hydrophobic Properties of Thin Films of Comb-Shaped Perfluorohexylethyl Methacrylate-Polydimethylsiloxane Copolymers Deposited from Supercritical Carbon Dioxide Solutions. Polymer Science - Series A, 2018, 60, 451-458.	0.4	5
84	Silicone aerogels with tunable mechanical properties obtained via hydrosilylation reaction in supercritical CO2. Journal of Supercritical Fluids, 2019, 149, 120-126.	1.6	5
85	Reducing the Ñontact angle hysteresis of thin polymer films by oil impregnation in supercritical carbon dioxide. Progress in Organic Coatings, 2021, 154, 106202.	1.9	5
86	Motion of single wandering diblock-macromolecules directed by a PTFE nano-fence: real time SFM observations. Physical Chemistry Chemical Physics, 2009, 11, 5591.	1.3	4
87	Raspberry-like Pt clusters with controlled spacing produced by deposition of loaded block copolymer micelles from supercritical CO2. European Polymer Journal, 2015, 71, 73-84.	2.6	4
88	Thermal decomposition of manganese carbonyl in supercritical CO2 as a simple and effective approach to obtain manganese oxide aerogels. Journal of Sol-Gel Science and Technology, 2019, 92, 116-123.	1.1	4
89	Polymer–Inorganic Composites Based on Celgard Matrices Obtained from Solutions of (Aminopropyl)triethoxysilane in Supercritical Carbon Dioxide. Doklady Physical Chemistry, 2019, 485, 53-57.	0.2	4
90	Electrochemically active dispersed tungsten oxides obtained from tungsten hexacarbonyl in supercritical carbon dioxide. Journal of Materials Science, 2019, 54, 9426-9441.	1.7	4

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91	Thermo- and pH-Sensitive Microgels Based on Interpenetrating Networks as Components for Creating Polymeric Materials. Polymer Science - Series A, 2019, 61, 773-779.	0.4	4
92	Deposition of a Chitosan Coating on Celgard Porous Matrices in the Presence of Carbon Dioxide under Pressure. Polymer Science - Series A, 2020, 62, 123-131.	0.4	4
93	Metal ions sensing using carbon nanodots from various sources. Functional Materials Letters, 2020, 13, 2040005.	0.7	4
94	Platinum crossâ€linked chitosan hydrogels synthesized in water saturated with CO 2 under high pressure. Journal of Applied Polymer Science, 2021, 138, 50006.	1.3	4
95	Scanning Probe Microscopy Of Biomacromolecules: Nucleic Acids, Proteins And Their Complexes. , 2002, , 321-330.		4
96	Production of new haemostatic materials by deposition of dispersed proteins onto porous matrices using supercritical carbon dioxide. Russian Journal of Physical Chemistry B, 2010, 4, 1047-1050.	0.2	3
97	Synthesis of macrocyclic tris <i>-cis-</i> tris <i>-trans</i> dodeca[(phenyl)(hydroxy)]cyclododecasiloxane in carbonic acid solution. Green Chemistry Letters and Reviews, 2016, 9, 69-75.	2.1	3
98	Polystyrene Foamed with Supercritical CO2 as Possible Model System of the Membrane Materials for Flow Batteries. Polymer Science - Series A, 2018, 60, 507-514.	0.4	3
99	Synthesis and surface properties of amphiphilic fluorineâ€containing diblock copolymers. Journal of Applied Polymer Science, 2021, 138, 49714.	1.3	3
100	Effect of chitosan coating on polypropylene fibers on the deposition of copper ions. Journal of Applied Polymer Science, 2022, 139, 52111.	1.3	3
101	A New Look at the Chemical Recycling of Polypropylene: Thermal Oxidative Destruction in Aqueous Oxygen-Enriched Medium. Polymers, 2022, 14, 744.	2.0	3
102	Corrigendum to "Synthesis of polyimides in supercritical carbon dioxide― Journal of Supercritical Fluids, 2003, 27, 119.	1.6	2
103	Properties of thin Teflon AF 2400 coatings deposited onto carbon fabric from solutions in supercritical carbon dioxide. Polymer Science - Series A, 2017, 59, 42-52.	0.4	2
104	Synthesis of platinum nanoparticles on substrates of various chemical natures using supercritical carbon dioxide. Doklady Physical Chemistry, 2017, 473, 41-44.	0.2	2
105	Formation of Dispersed Particles of Tungsten Oxide and Deposition of Platinum Nanoparticles on Them Using Organometallic Precursors from Solutions in Supercritical Carbon Dioxide. Russian Journal of Physical Chemistry B, 2019, 13, 1315-1321.	0.2	2
106	Electrochemical Exfoliation of Graphite in Supercritical Media. Doklady Physical Chemistry, 2020, 492, 69-73.	0.2	2
107	Improving proton conductivity and ionic selectivity of porous polyolefin membranes by chitosan deposition. Journal of Applied Polymer Science, 2021, 138, 50619.	1.3	2
108	Celgard/ PIM â€1 proton conducting composite membrane with reduced vanadium permeability. Journal of Applied Polymer Science, 0, , 51985.	1.3	2

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109	Spreading and Dewetting of Single Bottleâ€Brush Macromolecules on Nanofacetted SrTiO <sub>3</sub> Substrate as Induced by Different Vapours. Macromolecular Chemistry and Physics, 2013, 214, 761-775.	1.1	1
110	Interaction of organodialkoxysilanolates with carbon dioxide. RSC Advances, 2016, 6, 105161-105165.	1.7	1
111	A Method for Purification and Modification of a Bone Xenotransplant Material in Biphase Media Containing High-Pressure CO2. Doklady Physical Chemistry, 2019, 485, 58-62.	0.2	1
112	Platinum Electrodeposition from a Carbon Dioxide-Based Supercritical Electrolyte. Doklady Physical Chemistry, 2019, 489, 173-176.	0.2	1
113	Hydrophobic Properties of Poly(vinyl pivalate-co-1H,1H-perfluoro-4-methyl-3,6-dioxaoctyl) Tj ETQq1 1 0.784314	rgBT /Ove	rlock 10 Tf 5(
114	Morphology study of metal oxide nanoparticles and aerogels produced via thermal decomposition of metal carbonyls in supercritical carbon dioxide. Journal of Nanoparticle Research, 2021, 23, 1.	0.8	1
115	Multiarm Star-Shaped Polydimethylsiloxanes with a Dendritic Branching Center. Molecules, 2021, 26, 3280.	1.7	1
116	How does processing in supercritical carbon dioxide influence the Nafion film properties?. Colloid and Polymer Science, 2021, 299, 1863-1875.	1.0	1
117	Principles of Gold Nanoparticles Stabilization with Chitosan in Carbonic Acid Solutions Under High CO2 Pressure. Doklady Physical Chemistry, 2020, 495, 166-170.	0.2	1
118	Modification of the Nafion Membrane Using a Chitosan Solution in Carbonic Acid under Pressure. Polymer Science - Series B, 2021, 63, 496-501.	0.3	1
119	Study of the Droplet Pinning Force in the Transition from Dry to Liquid-Infused Thin Polymer Films. Langmuir, 2022, 38, 1114-1123.	1.6	1
120	Scanning tunneling microscope—A nanoelectronic measuring instrument. Measurement Techniques, 1998, 41, 383-388.	0.2	0
121	Interaction of Artificial Nuclease and DNA: Atomic Force Microscopy Data. Doklady Physical Chemistry, 2005, 405, 253-256.	0.2	0
122	Chitosan oxidative scission in selfâ€neutralizing biocompatible solution of peroxycarbonic acid under highâ€pressure <scp> CO <sub>2</sub> </scp> . Journal of Applied Polymer Science, 0, , .	1.3	0
123	Electrochemical Synthesis of Few Layer Graphene in Subcritical Electrolyte. Journal of Supercritical Fluids, 2022, , 105627.	1.6	0
124	Influence of the structure of iron carbonyl precursor on the properties of iron oxide nanoparticles obtained from it. Journal of Nanoparticle Research, 2022, 24, .	0.8	0