Marat Gallyamov

List of Publications by Year in Descending Order

117 papers	1,467 citations	21 h-index	32 g-index
130 ext. papers	1,629 ext. citations	3.3 avg, IF	4.51 L-index

#	Paper	IF	Citations
117	Chemical recycling of polyethylene in oxygen-enriched supercritical CO2. *Journal of Supercritical Fluids*, **2022**, 181, 105503	4.2	1
116	Electrochemical Synthesis of Few Layer Graphene in Subcritical Electrolyte. *Journal of Supercritical Fluids*, **2022**, 105627	4.2	
115	Novel electrolyte additive of graphene oxide for prolonging the lifespan of Zinc-ion batteries. *Nanotechnology*, **2021**,	3.4	2
114	Modification of the Nafion Membrane Using a Chitosan Solution in Carbonic Acid under Pressure. *Polymer Science - Series B*, **2021**, 63, 496-501	0.8	0
113	How does processing in supercritical carbon dioxide influence the Nafion film properties?. *Colloid and Polymer Science*, **2021**, 299, 1863	2.4	
112	Green approach for fabrication of bacterial cellulose-chitosan composites in the solutions of carbonic acid under high pressure CO. *Carbohydrate Polymers*, **2021**, 258, 117614	10.3	3
111	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	2.3	0
110	Reducing the contact angle hysteresis of thin polymer films by oil impregnation in supercritical carbon dioxide. *Progress in Organic Coatings*, **2021**, 154, 106202	4.8	1
109	Platinum cross-linked chitosan hydrogels synthesized in water saturated with CO2 under high pressure. *Journal of Applied Polymer Science*, **2021**, 138, 50006	2.9	1
108	Synthesis and surface properties of amphiphilic fluorine-containing diblock copolymers. *Journal of Applied Polymer Science*, **2021**, 138, 49714	2.9	1
107	Improving proton conductivity and ionic selectivity of porous polyolefin membranes by chitosan deposition. *Journal of Applied Polymer Science*, **2021**, 138, 50619	2.9	1
106	Hydrophobic Properties of Poly(vinyl pivalate-co-1H,1H-perfluoro-4-methyl-3,6-dioxaoctyl methacrylate) Fabricated in Supercritical Carbon Dioxide. *Doklady Physical Chemistry*, **2020**, 490, 4-7	0.8	1
105	Composite Nafion-based membranes with nanosized tungsten oxides prepared in supercritical carbon dioxide. *Journal of Membrane Science*, **2020**, 609, 118244	9.6	7
104	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	1.2	3
103	Metal ions sensing using carbon nanodots from various sources. *Functional Materials Letters*, **2020**, 13, 2040005	1.2	3
102	The mechanism of stabilization of silver nanoparticles by chitosan in carbonic acid solutions. *Colloid and Polymer Science*, **2020**, 298, 1135-1148	2.4	3
101	Structural organization of bacterial cellulose: The origin of anisotropy and layered structures. *Carbohydrate Polymers*, **2020**, 237, 116140	10.3	19

100	Morphology and Properties of Flame-Retardant Superhydrophobic Polymer Coatings Deposited on Cotton Fabrics from Supercritical CO2. *ACS Applied Polymer Materials*, **2020**, 2, 2919-2926	4.3	5
99	Principles of Gold Nanoparticles Stabilization with Chitosan in Carbonic Acid Solutions Under High CO2 Pressure. *Doklady Physical Chemistry*, **2020**, 495, 166-170	0.8	0
98	Thermal oxidation of polypropylene catalyzed by manganese oxide aerogel in oxygen-enriched supercritical carbon dioxide. *Journal of Supercritical Fluids*, **2020**, 158, 104744	4.2	6
97	Electrochemical Exfoliation of Graphite in Supercritical Media. *Doklady Physical Chemistry*, **2020**, 492, 69-73	0.8	2
96	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	0.8	0
95	Polymer–Inorganic Composites Based on Celgard Matrices Obtained from Solutions of (Aminopropyl)triethoxysilane in Supercritical Carbon Dioxide. *Doklady Physical Chemistry*, **2019**, 485, 53-57	0.8	3
94	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	4.2	11
93	Superhydrophobic coatings on textiles based on novel poly(perfluoro-tert-hexylbutyl methacrylate-co-hydroxyethyl methacrylate) copolymer deposited from solutions in supercritical carbon dioxide. *Journal of Supercritical Fluids*, **2019**, 149, 34-41	4.2	11
92	Silicone aerogels with tunable mechanical properties obtained via hydrosilylation reaction in supercritical CO2. *Journal of Supercritical Fluids*, **2019**, 149, 120-126	4.2	1
91	Electrochemically active dispersed tungsten oxides obtained from tungsten hexacarbonyl in supercritical carbon dioxide. *Journal of Materials Science*, **2019**, 54, 9426-9441	4.3	3
90	A new approach to purification of bacterial cellulose membranes: What happens to bacteria in supercritical media?. *Journal of Supercritical Fluids*, **2019**, 147, 59-69	4.2	11
89	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	2.3	3
88	Thermo- and pH-Sensitive Microgels Based on Interpenetrating Networks as Components for Creating Polymeric Materials. *Polymer Science - Series A*, **2019**, 61, 773-779	1.2	2
87	Platinum Electrodeposition from a Carbon Dioxide-Based Supercritical Electrolyte. *Doklady Physical Chemistry*, **2019**, 489, 173-176	0.8	1
86	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	1.2	1
85	Chitosan composites with Ag nanoparticles formed in carbonic acid solutions. *Carbohydrate Polymers*, **2018**, 190, 103-112	10.3	8
84	Ion 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	2.9	15
83	Synthesis of manganese oxide electrocatalysts in supercritical carbon dioxide. *Journal of Materials Science*, **2018**, 53, 9449-9462	4.3	9

82	Advanced porous polybenzimidazole membranes for vanadium redox batteries synthesized via a supercritical phase-inversion method. *Journal of Supercritical Fluids*, **2018**, 137, 111-117	4.2	29
81	Chitosan coatings with enhanced biostability in vivo. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2018**, 106, 270-277	3.5	7
80	Durable crosslinked omniphobic coatings on textiles via supercritical carbon dioxide deposition. *Journal of Supercritical Fluids*, **2018**, 133, 30-37	4.2	22
79	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	1.2	4
78	Polystyrene Foamed with Supercritical CO2 as Possible Model System of the Membrane Materials for Flow Batteries. *Polymer Science - Series A*, **2018**, 60, 507-514	1.2	2
77	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	4.2	9
76	Pretreatment of Celgard Matrices with Peroxycarbonic Acid for Subsequent Deposition of a Polydopamine Layer. *Colloid Journal*, **2018**, 80, 761-770	1.1	4
75	Synthesis of carbon quantum dots in a Nafion matrix: Precursor effect on the ion transport properties. *Mendeleev Communications*, **2018**, 28, 251-253	1.9	5
74	Synthesis and properties of carbosilane dendrimers with perfluorohexyl groups in the outer layer of the molecular structure. *Russian Chemical Bulletin*, **2018**, 67, 1440-1444	1.7	3
73	Modification of Nafion with silica nanoparticles in supercritical carbon dioxide for electrochemical applications. *Journal of Membrane Science*, **2018**, 564, 106-114	9.6	11
72	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	1.2	1
71	Synthesis of platinum nanoparticles on substrates of various chemical natures using supercritical carbon dioxide. *Doklady Physical Chemistry*, **2017**, 473, 41-44	0.8	2
70	Polymer materials for electrochemical applications: Processing in supercritical fluids. *Journal of Supercritical Fluids*, **2017**, 127, 229-246	4.2	17
69	Non-catalytic hydrolytic polycondensation of dialkoxydiorganosilanes under elevated pressure. *Russian Chemical Bulletin*, **2017**, 66, 355-361	1.7	2
68	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	8.9	29
67	Hydrothermal Transformations of Ascorbic Acid. *Russian Journal of General Chemistry*, **2017**, 87, 2858-2864	0.7	6
66	Interaction of organodialkoxysilanolates with carbon dioxide. *RSC Advances*, **2016**, 6, 105161-105165	3.7	1
65	Organosilicon compounds in supercritical carbon dioxide: Synthesis, polymerization, modification, and production of new materials. *Polymer Science - Series B*, **2016**, 58, 235-270	0.8	12

64	Synthesis of macrocyclic tris-cis-tris-trans- dodeca[(phenyl)(hydroxy)]cyclododecasiloxane in carbonic acid solution. *Green Chemistry Letters and Reviews*, **2016**, 9, 69-75	4.7	2
63	Hydrolytic polycondensation of methylalkoxysilanes under pressure. *Russian Chemical Bulletin*, **2016**, 65, 1104-1109	1.7	5
62	Formation of Easy-to-Recover Polystyrene-block-Poly(4-vinylpyridine) Micelles Decorated with Pd Nanoparticles in Solutions of Self-Neutralizing Carbonic Acid. *ACS Macro Letters*, **2015**, 4, 661-664	6.6	4
61	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	5.2	4
60	Degradation of High Temperature Polymer Electrolyte Fuel Cell Cathode Material as Affected by Polybenzimidazole. *Journal of the Electrochemical Society*, **2015**, 162, F587-F595	3.9	8
59	A biphase H2O/CO2 system as a versatile reaction medium for organic synthesis. *RSC Advances*, **2015**, 5, 103573-103608	3.7	42
58	Hydrolytic polycondensation of diethoxydimethylsilane in carbonic acid. *RSC Advances*, **2015**, 5, 5664-5666	3.7	9
57	Collagen tissue treated with chitosan solutions in carbonic acid for improved biological prosthetic heart valves. *Materials Science and Engineering C*, **2014**, 37, 127-40	8.3	36
56	Stabilization of Chitosan Aggregates at the Nanoscale in Solutions in Carbonic Acid. *Macromolecules*, **2014**, 47, 5749-5758	5.5	38
55	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	6.7	6
54	Sharp diffusion front in diffusion problem with change of state. *European Physical Journal E*, **2013**, 36, 92	1.5	6
53	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	6.7	17
52	Spreading and Dewetting of Single Bottle-Brush Macromolecules on Nanofacetted SrTiO3 Substrate as Induced by Different Vapours. *Macromolecular Chemistry and Physics*, **2013**, 214, 761-775	2.6	1
51	Novel composite Zr/PBI-O-PhT membranes for HT-PEFC applications. *Beilstein Journal of Nanotechnology*, **2013**, 4, 481-92	3	25
50	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	5.2	9
49	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	2.3	9
48	Chitosan nanostructures deposited from solutions in carbonic acid on a model substrate as resolved by AFM. *Colloid and Polymer Science*, **2012**, 290, 1471-1480	2.4	22
47	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	6.7	44

46	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	1.2	15
45	Electrocatalysts for fuel cells synthesized in supercritical carbon dioxide. *Nanotechnologies in Russia* , **2011**, 6, 311-322	0.6	10
44	Structural and electrocatalytic features of Pt/C catalysts fabricated in supercritical carbon dioxide. *Journal of Solid State Electrochemistry*, **2011**, 15, 623-633	2.6	21
43	Scanning force microscopy as applied to conformational studies in macromolecular research. *Macromolecular Rapid Communications*, **2011**, 32, 1210-46	4.8	30
42	Chitosan Macromolecules on a Substrate: Deposition from Solutions in sc CO2 and Reorganisation in Vapours. *Macromolecular Symposia*, **2010**, 296, 531-540	0.8	6
41	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	1.2	2
40	Synthesis of high-molecular-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
39	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	1.5	11
38	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	0.4	6
37	Supercritical carbon dioxide: A reactive medium for chemical processes involving fluoropolymers. *Russian Journal of General Chemistry*, **2009**, 79, 578-588	0.7	15
36	Motion of single wandering diblock-macromolecules directed by a PTFE nano-fence: real time SFM observations. *Physical Chemistry Chemical Physics*, **2009**, 11, 5591-7	3.6	4
35	Chitosan Molecules Deposited from Supercritical Carbon Dioxide on a Substrate: Visualization and Conformational Analysis. *Macromolecular Chemistry and Physics*, **2008**, 209, 2204-2212	2.6	11
34	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	2.6	13
33	Supramolecular Assembly of Defined Polymer Nanoobjects. *Macromolecular Chemistry and Physics*, **2007**, 208, 1409-1415	2.6	6
32	Vapor-induced spreading dynamics of adsorbed linear and brush-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	2.6	21
31	Formation of superhydrophobic surfaces by the deposition of coatings from supercritical carbon dioxide. *Colloid Journal*, **2007**, 69, 411-424	1.1	20
30	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, 346-52	3.6	26
29	Synthesis and SFM Study of Comb-Like Poly(4-vinylpyridinium) Salts and Their Complexes with Surfactants. *Macromolecular Rapid Communications*, **2006**, 27, 1048-1053	4.8	14

28	Self-assembly of (perfluoroalkyl)alkanes on a substrate surface from solutions in supercritical carbon dioxide. *Physical Chemistry Chemical Physics*, **2006**, 8, 2642-9	3.6	17
27	Structure of composites prepared via polypyrrole synthesis in supercritical CO2 on microporous polyethylene. *Polymer Science - Series A*, **2006**, 48, 827-840	1.2	6
26	Synthesis and properties of fluorinated derivatives of carbosilane dendrimers of high generations. *Polymer Science - Series A*, **2006**, 48, 1240-1247	1.2	17
25	Self-assembly of the perfluoroalkyl-alkane F14H20 in ultrathin films. *Langmuir*, **2005**, 21, 2308-16	4	64
24	Real-Time Imaging of the Coil-Globule Transition of Single Adsorbed Poly(2-vinylpyridine) Molecules. *Macromolecular Rapid Communications*, **2005**, 26, 456-460	4.8	26
23	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	0.8	9
22	Interaction of Artificial Nuclease and DNA: Atomic Force Microscopy Data. *Doklady Physical Chemistry*, **2005**, 405, 253-256	0.8	
21	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, 245-56	1.9	37
20	Real-Time Scanning Force Microscopy of Macromolecular Conformational Transitions. *Macromolecular Rapid Communications*, **2004**, 25, 1703-1707	4.8	42
19	Reversible collapse of brushlike macromolecules in ethanol and water vapours as revealed by real-time scanning force microscopy. *Chemistry - A European Journal*, **2004**, 10, 4599-605	4.8	66
18	The Use of Ultrafine Poly(tetrafluoroethylene) as a Stabilizing Agent for Emulsifying Paraffin and Producing Composite Microparticles in a Supercritical Carbon Dioxide Medium. *Doklady Physical Chemistry*, **2003**, 392, 217-220	0.8	5
17	Swelling and impregnation of polystyrene using supercritical carbon dioxide. *Journal of Supercritical Fluids*, **2003**, 26, 263-273	4.2	85
16	Synthesis of polyimides in supercritical carbon dioxide. *Journal of Supercritical Fluids*, **2003**, 26, 147-156	4.2	13
15	Synthesis of polyimides in supercritical carbon dioxide. *Journal of Supercritical Fluids*, **2003**, 27, 121-130	4.2	16
14	Reorganization of Langmuir monolayers on solid surfaces. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2002**, 198-200, 231-238	5.1	6
13	Composite LangmuirBlodgett films of behenic acid and CdTe nanoparticles: the structure and reorganization on solid surfaces. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2002**, 202, 233-241	5.1	10
12	High-Quality Ultrathin Polymer Films Obtained by Deposition from Supercritical Carbon Dioxide As Imaged by Atomic Force Microscopy. *Langmuir*, **2002**, 18, 6928-6934	4	36
11	Poly(methyl methacrylate) and Poly(butyl methacrylate) Swelling in Supercritical Carbon Dioxide. *Macromolecules*, **2002**, 35, 934-940	5.5	56

10	Scanning Probe Microscopy Of Biomacromolecules: Nucleic Acids, Proteins And Their Complexes **2002**, 321-330		3
9	Interpretation of SPM images of Langmuir–Blodgett films based on long-chain carboxylic acids. *Thin Solid Films*, **2000**, 359, 98-103	2.2	9
8	Interplay between folding/unfolding and helix/coil transitions in giant DNA. *Biomacromolecules*, **2000**, 1, 597-603	6.9	17
7	Incorporation of Thiol-Stabilized CdTe Nanoclusters into Langmuir-Blodgett Films. *Journal of Inclusion Phenomena and Macrocyclic Chemistry*, **1999**, 35, 157-164		5
6	Scanning tunneling microscope—A nanoelectronic measuring instrument. *Measurement Techniques*, **1998**, 41, 383-388	0.4	
5	Atomic force microscopy examination of tobacco mosaic virus and virion RNA. *FEBS Letters*, **1998**, 425, 217-21	3.8	51
4	DNA-surfactant complexes in organic media. *Progress in Colloid and Polymer Science*, **1997**, 106, 198-203		10
3	Scanning tunneling microscopy study of cytochrome P450 2B4 incorporated in proteoliposomes. *Biochimie*, **1996**, 78, 780-4	4.6	10
2	Celgard/ PIM -1 proton conducting composite membrane with reduced vanadium permeability. *Journal of Applied Polymer Science*,51985	2.9	
1	Effect of chitosan coating on polypropylene fibers on the deposition of copper ions. *Journal of Applied Polymer Science*,52111	2.9	1