Anatolii Malygin

List of Publications by Citations

87 papers	349 citations	9 h-index	13 g-index
92 ext. papers	379 ext. citations	1 avg, IF	3.13 L-index

#	Paper	IF	Citations
87	CVD□titania/Silica Gel Carbonized Due to Pyrolysis of Cyclohexene. *Langmuir*, **2000**, 16, 3227-3243	4	37
86	Characteristics of the Hydration Layer Structure in Porous Titania–Silica Obtained by the Chemical Vapor Deposition Method. *Langmuir*, **1999**, 15, 8441-8446	4	17
85	Effect of chemical modification on structural and energy characteristics of the surface of polyethylene and polyvinyl chloride films. *Russian Journal of Applied Chemistry*, **2009**, 82, 622-629	0.8	16
84	Synthesis of Porous Magnesium Oxide by Thermal Decomposition of Basic Magnesium Carbonate. *Russian Journal of General Chemistry*, **2003**, 73, 37-42	0.7	14
83	Influence of chemical modification of the surface of low-density polyethylene on its electret properties. *Russian Journal of Applied Chemistry*, **2007**, 80, 461-465	0.8	12
82	Influence of Chemical Modification of the Surface on the Electret Properties of Polytetrafluoroethylene. *Russian Journal of Applied Chemistry*, **2004**, 77, 276-280	0.8	12
81	Synthesis of Multicomponent Oxide Low-Dimensional Systems on the Surface of Porous Silicon Dioxide Using the Molecular Layering Method. *Russian Journal of General Chemistry*, **2002**, 72, 575-589	0.7	10
80	Hydrolytic stability of the Si□□Ti bonds in the chemical assembly of titania nanostructures on silica surfaces. *Russian Chemical Reviews*, **2010**, 79, 907-920	6.8	9
79	A new approach to processing electronic diffuse reflectance spectra. *Russian Journal of Physical Chemistry A*, **2009**, 83, 642-648	0.7	9
78	Interaction of Titanium Tetrachloride with Products of Thermal Decomposition of Basic Magnesium Carbonate. *Russian Journal of Applied Chemistry*, **2003**, 76, 7-11	0.8	8
77	The effect exerted by temperature on the phase formation of titanium oxide layer on silica surface at different stages of molecular layering. *Russian Journal of Applied Chemistry*, **2010**, 83, 1511-1519	0.8	7
76	Quantum-chemical analysis and experimental study of the process of the silica surface interaction with the CrO2Cl2 and VOCl3 vapor mixture. *Russian Journal of General Chemistry*, **2010**, 80, 1168-1175	0.7	6
75	Synthesis and in situ gravimetric monitoring of formation of titanium-oxide layer on silica surface. *Russian Journal of Applied Chemistry*, **2004**, 77, 1227-1231	0.8	6
74	Reactivity of Phenol-Formaldehyde Microspheres toward PCl3, VOCl3, and CrO2Cl2 Vapors. *Russian Journal of Applied Chemistry*, **2002**, 75, 969-973	0.8	6
73	Quantum-chemical analysis and experimental synthesis of titanium-vanadium-containing coatings on the silica surface from a mixture of TiCl4 and VOCl3 vapors. *Russian Journal of General Chemistry*, **2016**, 86, 2113-2123	0.7	5
72	Chemical transformations at the silica surface upon sequential interactions with titanium tetrachloride and ammonia vapors. *Russian Journal of General Chemistry*, **2015**, 85, 2533-2540	0.7	5
71	Synthesis of titanium oxide structures on mesoporous silicon dioxide surface by molecular layering. *Colloid Journal*, **2011**, 73, 495-503	1.1	5

70	Phase transformations in titanium dioxide thin films during chemical synthesis under strongly nonequilibrium conditions. *Physics of the Solid State*, **2009**, 51, 495-497	0.8	5
69	Quantum-chemical approaches to identification of nanostructures synthesized by molecular layering technique. *Russian Journal of General Chemistry*, **2010**, 80, 643-657	0.7	5
68	Synthesis and properties of polyvinyl chloride films with modified surface. *Russian Journal of Applied Chemistry*, **2006**, 79, 1316-1320	0.8	5
67	Surface structure and thermal oxidative degradation of the reaction products of polyethylene with PCl3 and VOCl3 vapors. *Russian Journal of Applied Chemistry*, **2004**, 77, 1854-1858	0.8	5
66	Effect of the composition of (Mo, Nb, V, Ti)/Al2O3 surface oxide structures on the oxidative dehydrogenation of ethane to ethylene. *Russian Journal of Applied Chemistry*, **2016**, 89, 34-39	0.8	4
65	Effect of the composition and structure of the surface layer on the functional properties of a core(Al2O3)-Shell(VO x /TiO y) composite. *Russian Journal of Applied Chemistry*, **2014**, 87, 23-30	0.8	4
64	Temperature factor in interaction of nanotubular magnesium hydrosilicate, Mg3Si2O5(OH)4, with titanium tetrachloride and water vapors. *Russian Journal of Applied Chemistry*, **2014**, 87, 151-159	0.8	4
63	The role of a reference sample in the study of the titanium-containing silicas by ultraviolet-visible diffuse reflectance spectroscopy. *Russian Journal of General Chemistry*, **2013**, 83, 231-237	0.7	4
62	Mechanism of thermal oxidation of silicon carbide modified by chromium oxide structures. *Russian Journal of General Chemistry*, **2014**, 84, 2375-2381	0.7	4
61	Temperature influence on the formation of titanium-oxide structures on finely porous silica. *Russian Journal of General Chemistry*, **2011**, 81, 41-48	0.7	4
60	Structure of the products of TiCl4 chemisorption on the surface of porous silica in the process of vapor-phase hydrolysis. *Russian Journal of General Chemistry*, **2010**, 80, 1176-1182	0.7	4
59	Optimization of properties of inorganic catalytic membranes using molecular layering nanotechnology. *Nanotechnologies in Russia*, **2010**, 5, 153-159	0.6	4
58	AFM examination of nanolayers synthesised by the molecular layering method on the surface of manufacturing glasses. *Semiconductors*, **2007**, 41, 498-501	0.7	4
57	Structure of products formed in chemisorption of titanium tetrachloride by porous silicas. *Russian Journal of Applied Chemistry*, **2007**, 80, 2057-2062	0.8	4
56	Free charge carrier repartition over the surface of photosensitive materials: Why and how to manage?. *Russian Journal of General Chemistry*, **2008**, 78, 1070-1080	0.7	4
55	Features of sample preparation and atomic force microscopy study of dispersed nanomaterials. *Journal of Surface Investigation*, **2008**, 2, 699-704	0.5	4
54	Possibility of quantum chemical evaluation of the probability of various chemical transformations in syntheses of phosphorus-, titanium-, silicon-, and vanadium-containing structures on the silica surface. *Russian Journal of Applied Chemistry*, **2006**, 79, 175-181	0.8	4
53	The influence of titanium oxide nanocoatings on the surface quality of glass products for electronic devices. *Glass Physics and Chemistry*, **2006**, 32, 70-74	0.7	4

52	Damping of the Growth of Titanium Oxide Nanolayer Formed by Molecular Layer Deposition Technique on Oxidized Silicon Surface. *Russian Journal of Applied Chemistry*, **2004**, 77, 1061-1065	0.8	4
51	Calculation of the Stoichiometric Composition of Nanostructures Synthesized by Molecular Layer Deposition on the Surface of Solid Matrices. *Russian Journal of Applied Chemistry*, **2005**, 78, 367-374	0.8	4
50	Quantum-chemical approach to optimization of the synthesis conditions of two-component phosphorus-titanium oxide structures on silica surface. *Russian Journal of General Chemistry*, **2016**, 86, 2263-2272	0.7	4
49	Atomic force microscopic study of variations in the surface morphology of porous silica upon thermal treatment. *Colloid Journal*, **2012**, 74, 380-385	1.1	3
48	Effect of temperature treatment on the interaction of nanotubular magnesium silicate Mg3Si2O5(OH)4 with titanium tetrachloride and water vapors. *Russian Journal of Applied Chemistry*, **2012**, 85, 1319-1326	0.8	3
47	Influence of chemical modification of the surface of polyethylene with phosphorus, boron, titanium, vanadium, and silicon halides on its vapor permeability. *Russian Journal of Applied Chemistry*, **2007**, 80, 1413-1418	0.8	3
46	Thermal stability of polymer compositions with modified alumina. *Russian Journal of General Chemistry*, **2008**, 78, 2214-2219	0.7	3
45	Effect of the substrate nature on the formation of thin titanium dioxide films by molecular layering. *Russian Journal of Applied Chemistry*, **2008**, 81, 2051-2055	0.8	3
44	Preparation of tin oxide nanocoatings on borosilicate glass by the molecular layering method. *Glass Physics and Chemistry*, **2008**, 34, 534-542	0.7	3
43	Study of high-porous silica surface by atomic force microscopy re]20071018. *Journal of Surface Investigation*, **2008**, 2, 696-698	0.5	3
42	Influence of the physicochemical treatment procedure on the morphology and properties of the polyvinyl chloride film surface. *Russian Journal of Applied Chemistry*, **2006**, 79, 1857-1861	0.8	3
41	Effect of the chemical modification of the filler surface on the structure and permeability of a composite film based on polyvinyl chloride. *Russian Journal of Applied Chemistry*, **2015**, 88, 110-117	0.8	2
40	Chemical and physical modification and electret properties of polytetrafluoroethylene films. *Russian Journal of Applied Chemistry*, **2016**, 89, 930-936	0.8	2
39	Properties of Polytetrafluoroethylene Films Modified with Titanium and Phosphorus Oxide Structures. *Russian Journal of Applied Chemistry*, **2019**, 92, 1128-1134	0.8	2
38	Structural and chemical transformations in the products of the interaction of silica gel with vapours of TiCl4 and H2O. *Applied Surface Science*, **2014**, 288, 584-590	6.7	2
37	Chemical assembly of a titanium oxide layer on microporous silica. *Russian Journal of General Chemistry*, **2017**, 87, 1786-1793	0.7	2
36	Synthesis and protective properties of titanium nitride coatings on willemite. *Russian Journal of Applied Chemistry*, **2012**, 85, 1070-1076	0.8	2
35	Membranes Prepared via Molecular Layering Method **2011**, 357-369		2

34	The effect of temperature on the formation of titanium dioxide structures on □Al2O3 surface. *Russian Journal of Applied Chemistry*, **2010**, 83, 1520-1524	0.8	2
33	Phase formation in a nanosize silicon oxide film on the surface of aluminum oxide. *Technical Physics Letters*, **1998**, 24, 1-3	0.7	2
32	AFM application for in situ study of adsorption processes. *Semiconductors*, **2007**, 41, 495-497	0.7	2
31	Thermal transformations of a polymeric composite consisting of poly(methyl methacrylate) and phosphorus-containing nanodispersed aluminum oxide. *Russian Journal of Applied Chemistry*, **2007**, 80, 2119-2123	0.8	2
30	Formation and properties of the nanocluster structure of iron oxides. *Russian Chemical Bulletin*, **2006**, 55, 1755-1767	1.7	2
29	Effects of silica and titania modification additions on the microstructure of sintered alumina. *Inorganic Materials*, **2000**, 36, 1127-1132	0.9	2
28	Thermal oxidation of silicon carbide with surface modification by the molecular layering method. *Refractories*, **1985**, 26, 82-84		2
27	Growth of Titanium Oxide Nanostructures on □123 by Atomic Layer Deposition. *Inorganic Materials*, **2020**, 56, 1234-1241	0.9	2
26	Oxidative Dehydrogenation of Ethane on Oxide Materials in a Pulsed Microcatalytic and a Membrane Reactor. *Inorganic Materials*, **2018**, 54, 1136-1143	0.9	2
25	Effect of a Thermal-Vacuum Treatment and X-Ray Radiation on the Morphology and Electrical Properties of Titanium Oxide Nanocoatings. *Russian Journal of Applied Chemistry*, **2019**, 92, 883-892	0.8	1
24	Quantum Chemical Analysis of the Processes of Synthesis of Vanadium Oxide Structures on the Silica Surface. *Russian Journal of General Chemistry*, **2020**, 90, 880-888	0.7	1
23	Molecular layering of phosphorus oxide structures on the surface of gamma alumina. *Russian Journal of Applied Chemistry*, **2016**, 89, 1573-1578	0.8	1
22	Influence of ZrO5 treatment temperature on the interaction with titanium tetrachloride. *Russian Journal of General Chemistry*, **2016**, 86, 1001-1007	0.7	1
21	Synthesis and thermochemical transformations of vanadium oxychloride groups on a silica surface. *Russian Journal of Physical Chemistry A*, **2014**, 88, 530-536	0.7	1
20	Interaction of titanium tetrachloride vapors with zirconium dioxide nanocrystals. *Russian Journal of Applied Chemistry*, **2012**, 85, 1950-1954	0.8	1
19	Temperature effect on polymorphic transformations in silica matrix□titania coating systems. *Inorganic Materials*, **2011**, 47, 495-501	0.9	1
18	Chemical assembly of chromium oxide structures on the surface of disperse silicon carbide. *Russian Journal of Applied Chemistry*, **2011**, 84, 1299-1303	0.8	1
17	Structural, chemical, and dynamic characteristics of ceramic membranes modified with self-organized supramolecular silicon oxide systems. *Russian Journal of Applied Chemistry*, **2009**, 82, 378-386	0.8	1

16	A study of phase transformations in the surface layer of titanium dioxide. *Russian Journal of Applied Chemistry*, **2009**, 82, 783-788	0.8	1
15	Perspectives of application of the molecular layer deposition technique for controlling operational properties of materials for shipbuilding. *Russian Journal of General Chemistry*, **2010**, 80, 2181-2191	0.7	1
14	METHOD OF ESDR-SPECTRA PROCESSING FOR THE CHARACTERIZATION OF NANOSTRUCTURES AT THE SOLID'S SURFACE. *Integrated Ferroelectrics*, **2008**, 103, 41-51	0.8	1
13	Effect of the metallic modifier is nature on the surface microstructure of the phenolic carboplastic-steel interface. *Journal of Friction and Wear*, **2008**, 29, 470-476	0.9	1
12	Thermal Transformations of Titanium Oxochloride Nanostructures on Silica Surface. *Russian Journal of Applied Chemistry*, **2005**, 78, 859-864	0.8	1
11	Nanotechnology of Molecular Layering in Production of Inorganic and Hybrid Materials for Various Functional Purposes (a Review): I. History of the Development of the Molecular Layering Method. *Russian Journal of Applied Chemistry*, **2021**, 94, 1022-1037	0.8	1
10	Effect of Composition and Structure of Element Oxide Nanostructures Grafted at Polyethylene Film Surface on Electret Characteristics of the Polymer. *Russian Journal of General Chemistry*, **2021**, 91, 1075-1083	0.7	1
9	Structural and Morphological Features of Polycrystalline Aluminum Oxide Surface after Nanocoating with Titanium Oxide of Different Thickness. *Russian Journal of General Chemistry*, **2020**, 90, 1670-1676	0.7	0
8	Phase Transitions in the Bulk and on Surfaces of Titanium Dioxide during Heat Treatment. *Russian Journal of Physical Chemistry A*, **2022**, 96, 179-189	0.7	0
7	Scanning probe microscopy estimation of the wear resistance of the surface of a modified PVC film. *Russian Metallurgy (Metally)*, **2017**, 2017, 312-318	0.5	
6	Third Russian Conference "Surface Chemistry and Nanotechnology" (with international participation). *Russian Journal of General Chemistry*, **2007**, 77, 323-324	0.7	
5	Nanotechnology of Molecular Layering in Production of Inorganic and Hybrid Materials for Various Functional Purposes: II. Molecular Layering Technology and Prospects for Its Commercialization and Development in the XXI Century. *Russian Journal of Applied Chemistry*, **2021**, 94, 1189-1215	0.8	
4	Influence of Structure of Chemically Grafted onto Polyethylene Surface Two-Component Titanium-Phosphoroxide Nanostructures on the Properties of Composite Material. *Russian Journal of Applied Chemistry*, **2020**, 93, 1192-1201	0.8	
3	The Molecular Layering Method as a Basis of Chemical Nanotechnology **1999**, 487-495		
2	Electret Materials Based on Fluoropolymers Modified with Vanadium- and Phosphorus-Containing Structures. *Russian Journal of Applied Chemistry*, **2021**, 94, 777-786	0.8	
1	Experimental Assessment of the Structural Parameters of Highly Porous Silica: Probe Microscopy Data. *Glass Physics and Chemistry*, **2019**, 45, 365-371	0.7	