Sergey Mikhalovsky

List of Publications by Year in descending order

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141 papers 5,288 citations

94269 37 h-index 98622 67 g-index

144 all docs

144 docs citations

times ranked

144

7301 citing authors

#	Article	IF	CITATIONS
1	Ecological Aspects of the Assessment of Safety Limits of the Near Surface of Radioactive Wastes in the Chornobyl Exclusion Zone. Studies in Systems, Decision and Control, 2022, , 293-304.	0.8	O
2	Surface-Functionalized Conducting Nanofibers for Electrically Stimulated Neural Cell Function. Biomacromolecules, 2021, 22, 594-611.	2.6	12
3	Functionalization of biosourced silica and surface reactions with mercury in aqueous solutions. Chemical Engineering Journal, 2021, 423, 129745.	6.6	8
4	Enterosorption in the Treatment of Heavy Metal Poisoning. Chemistry Journal of Moldova, 2021, 16, 9-27.	0.3	1
5	Synthetic Amphoteric Cryogels as an Antidote against Acute Heavy Metal Poisoning. Molecules, 2021, 26, 7601.	1.7	2
6	Novel nanostructured iron oxide cryogels for arsenic (As(III)) removal. Journal of Hazardous Materials, 2020, 381, 120996.	6.5	43
7	A new Rhodococcus aetherivorans strain isolated from lubricant-contaminated soil as a prospective phenol-biodegrading agent. Applied Microbiology and Biotechnology, 2020, 104, 3611-3625.	1.7	18
8	Nanosized copper(<scp>ii</scp>) oxide/silica for catalytic generation of nitric oxide from <i>S</i> -nitrosothiols. Journal of Materials Chemistry B, 2020, 8, 4267-4277.	2.9	16
9	Development of Cu-Modified PVC and PU for Catalytic Generation of Nitric Oxide. Colloids and Interfaces, 2019, 3, 33.	0.9	3
10	Investigation of the adsorption capacity of the enterosorbent Enterosgel for a range of bacterial toxins, bile acids and pharmaceutical drugs. Scientific Reports, 2019, 9, 5629.	1.6	25
11	Composite Cryogel with Polyelectrolyte Complexes for Growth Factor Delivery. Pharmaceutics, 2019, 11, 650.	2.0	28
12	Impact of electromagnetic fields on in vitro toxicity of silver and graphene nanoparticles. Electromagnetic Biology and Medicine, 2019, 38, 21-31.	0.7	13
13	In situ production of high purity noble metal nanoparticles on fumed silica and catalytic activity towards 2-nitrophenol reduction. Journal of Physics and Chemistry of Solids, 2019, 127, 28-34.	1.9	13
14	Investigation of rice husk derived activated carbon for removal of nitrate contamination from water. Science of the Total Environment, 2018, 630, 1237-1245.	3.9	88
15	MXene Sorbents for Removal of Urea from Dialysate: A Step toward the Wearable Artificial Kidney. ACS Nano, 2018, 12, 10518-10528.	7.3	174
16	Amine-Functionalized Electrically Conductive Core–Sheath MEH-PPV:PCL Electrospun Nanofibers for Enhanced Cell–Biomaterial Interactions. ACS Biomaterials Science and Engineering, 2018, 4, 3327-3346.	2.6	24
17	Bioinspired detoxification of blood: The efficient removal of anthrax toxin protective antigen using an extracorporeal macroporous adsorbent device. Scientific Reports, 2018, 8, 7518.	1.6	9
18	Rapid Adsorption of Proinflammatory Cytokines by Graphene Nanoplatelets and Their Composites for Extracorporeal Detoxification. Journal of Nanomaterials, 2018, 2018, 1-8.	1.5	12

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19	Electrically conductive MEH-PPV:PCL electrospun nanofibres for electrical stimulation of rat PC12 pheochromocytoma cells. Biomaterials Science, 2018, 6, 2342-2359.	2.6	29
20	Graphene-Based Materials for the Fast Removal of Cytokines from Blood Plasma. ACS Applied Bio Materials, 2018, 1, 436-443.	2.3	22
21	Adsorption of Bovine Serum Albumin on Carbon-Based Materials. Journal of Carbon Research, 2018, 4, 3.	1.4	32
22	Nano carriers for drug transport across the blood–brain barrier. Journal of Drug Targeting, 2017, 25, 17-28.	2.1	187
23	A haemocompatible and scalable nanoporous adsorbent monolith synthesised using a novel lignin binder route to augment the adsorption of poorly removed uraemic toxins in haemodialysis. Biomedical Materials (Bristol), 2017, 12, 035001.	1.7	29
24	Preparation of liposomes containing small gold nanoparticles using electrostatic interactions. European Journal of Pharmaceutical Sciences, 2017, 105, 55-63.	1.9	29
25	Double probe approach to protein adsorption on porous carbon surfaces. Carbon, 2017, 112, 103-110.	5.4	11
26	Properties of Water Bound in Hydrogels. Gels, 2017, 3, 37.	2.1	162
27	A Comprehensive Review of Topical Odor-Controlling Treatment Options for Chronic Wounds. Journal of Wound, Ostomy and Continence Nursing, 2016, 43, 598-609.	0.6	51
28	Small angle neutron scattering study of globular proteins confined in porous carbons. Carbon, 2016, 106, 142-151.	5.4	12
29	Carbon-cryogel hierarchical composites as effective and scalable filters for removal of trace organic pollutants from water. Journal of Environmental Management, 2016, 182, 141-148.	3.8	19
30	A simple method for the production of large volume 3D macroporous hydrogels for advanced biotechnological, medical and environmental applications. Scientific Reports, 2016, 6, 21154.	1.6	97
31	Repairing Peripheral Nerves: Is there a Role for Carbon Nanotubes?. Advanced Healthcare Materials, 2016, 5, 1253-1271.	3.9	47
32	Synthesis and applications of copillar[5] arene dithiols. Supramolecular Chemistry, 2016, 28, 436-443.	1.5	10
33	Cryogels in Regenerative Medicine. , 2016, , 179-198.		1
34	Current state of chronic wound care in Kazakhstan: focus on topical treatments. Russian Open Medical Journal, 2015, 4, e0104.	0.1	0
35	Affinity binding of antibodies to supermacroporous cryogel adsorbents with immobilized protein A for removal of anthrax toxin protective antigen. Biomaterials, 2015, 50, 140-153.	5.7	64
36	Construction and evaluation of nitric oxide generating vascular graft material loaded with organoselenium catalyst via layer-by-layer self-assembly. Science China Life Sciences, 2015, 58, 765-772.	2.3	10

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37	Bio-effects of non-ionizing electromagnetic fields in context of cancer therapy. Frontiers in Bioscience - Elite, 2014, E6, 175-184.	0.9	10
38	SURFACE HYDROPHILIC MODIFICATION FOR CARBON/CARBON COMPOSITES AND ITS EFFECT ON THE BONDING STRENGTH OF HYDROXYAPATITE COATING. Surface Review and Letters, 2014, 21, 1450016.	0.5	5
39	Synthesis of the polymerizable room temperature ionic liquid AMPS \hat{a} TEA and superabsorbency for organic liquids of its copolymeric gels with acrylamide. Designed Monomers and Polymers, 2014, 17, 140-146.	0.7	9
40	Does flax <i>Linum usitatissimum</i> positively impact populations of declining farmland birds?. Bird Study, 2014, 61, 42-47.	0.4	0
41	Cationic ring-opening polymerization of lactones onto chemically modified single layer graphene oxide. Materials Express, 2014, 4, 242-246.	0.2	2
42	The use of composite ferrocyanide materials for treatment of high salinity liquid radioactive wastes rich in cesium isotopes. Radiochimica Acta, 2014, 102, 911-917.	0.5	6
43	An adsorbent monolith device to augment the removal of uraemic toxins during haemodialysis. Journal of Materials Science: Materials in Medicine, 2014, 25, 1589-1597.	1.7	28
44	Therapeutic potential of electromagnetic fields for tissue engineering and wound healing. Cell Proliferation, 2014, 47, 485-493.	2.4	54
45	Synthesis, Chloramphenicol Uptake, and In Vitro Release of Poly(AMPS–TEA-Co-AAm) Gels with Affinity for Both Water and Alcohols. International Journal of Polymeric Materials and Polymeric Biomaterials, 2014, 63, 73-79.	1.8	6
46	Comparative in vitro stability and scintigraphic imaging for trafficking and tumor targeting of a directly and a novel 99mTc(I)(CO)3 labeled liposome. International Journal of Pharmaceutics, 2014, 465, 333-346.	2.6	12
47	The in vitro characterization of a gelatin scaffold, prepared by cryogelation and assessed in vivo as a dermal replacement in wound repair. Acta Biomaterialia, 2014, 10, 3156-3166.	4.1	46
48	Metal chelation by a plant lignan, secoisolariciresinol diglucoside. Journal of Inclusion Phenomena and Macrocyclic Chemistry, 2014, 80, 345-351.	0.9	13
49	Therapeutic Potential of Noble Nanoparticles for Wound Repair. Central Asian Journal of Global Health, 2014, 3, 172.	0.6	0
50	Polyurethane–poly(2-hydroxyethyl methacrylate) semi-IPN–nanooxide composites. RSC Advances, 2013, 3, 14560.	1.7	18
51	Cryogels: Morphological, structural and adsorption characterisation. Advances in Colloid and Interface Science, 2013, 187-188, 1-46.	7.0	250
52	Interactions of single and multi-layer graphene oxides with water, methane, organic solvents and HCl studied by 1H NMR. Carbon, 2013, 57, 191-201.	5.4	24
53	Single-Layer Graphenes Functionalized with Polyurea: Architectural Control and Biomolecule Reactivity. Journal of Physical Chemistry C, 2013, 117, 11829-11836.	1.5	10
54	The role of interfacial chemistry and interactions in the dynamics of thermosetting polyurethane–multiwalled carbon nanotube composites at low filler contents. Colloid and Polymer Science, 2013, 291, 573-583.	1.0	22

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55	Adsorption of proteins in channels of carbon nanotubes: Effect of surface chemistry. Materials Express, 2013, 3, 1-10.	0.2	18
56	Macroporous Composite Cryogels with Embedded Polystyrene Divinylbenzene Microparticles for the Adsorption of Toxic Metabolites from Blood. Journal of Chemistry, 2013, 2013, 1-8.	0.9	15
57	In Vitro Biocompatibility of Multiwalled Carbon Nanotubes with Sensory Neurons. Advanced Healthcare Materials, 2013, 2, 728-735.	3.9	24
58	Synthesis and Application of Hydride Silica Composites for Rapid and Facile Removal of Aqueous Mercury. ChemPhysChem, 2013, 14, 4126-4133.	1.0	8
59	Nanoporous Activated Carbon Beads and Monolithic Columns as Effective Hemoadsorbents for Inflammatory Cytokines. International Journal of Artificial Organs, 2013, 36, 624-632.	0.7	13
60	Cytokine Removal: Hierarchical Porous Carbideâ€Derived Carbons for the Removal of Cytokines from Blood Plasma (Adv. Healthcare Mater. 6/2012). Advanced Healthcare Materials, 2012, 1, 682-682.	3.9	3
61	Composites with Macroporous Poly(vinyl alcohol) Cryogels with Attached Activated Carbon Microparticles with Controlled Accessibility of a Surface. ACS Applied Materials & Interfaces, 2012, 4, 5936-5944.	4.0	23
62	A comparative study of air-dry and water swollen flax and cotton fibres. RSC Advances, 2012, 2, 2868.	1.7	13
63	Cottonised flax fibres vs. cotton fibres: structural, textural and adsorption characteristics. RSC Advances, 2012, 2, 2032.	1.7	31
64	Gradient semi-interpenetrating polymer networks based on polyurethane and poly(2-hydroxyethyl) Tj ETQq0 0 C	rgBT/Ove	erlock 10 Tf 50 22
65	Driving Forces of Conformational Changes in Single-Layer Graphene Oxide. ACS Nano, 2012, 6, 3967-3973.	7.3	107
66	Hierarchical Porous Carbideâ€Derived Carbons for the Removal of Cytokines from Blood Plasma. Advanced Healthcare Materials, 2012, 1, 796-800.	3.9	33
67	Biomedical Applications of Carbon Adsorbents. , 2012, , 639-669.		12
68	Activated carbons and carbon-containing poly(vinyl alcohol) cryogels: characterization, protein adsorption and possibility of myoglobin clearance. Physical Chemistry Chemical Physics, 2012, 14, 16267.	1.3	26
69	Creation of 3-dimensional carbon nanostructures from UV irradiation of carbon dioxide at room temperature. Journal of Supercritical Fluids, 2012, 72, 1-6.	1.6	1
70	Dynamics, thermal behaviour and elastic properties of thin films of poly(vinyl alcohol) nanocomposites. RSC Advances, 2012, 2, 1424-1431.	1.7	14
71	Hyperstoichiometric Interaction Between Silver and Mercury at the Nanoscale. Angewandte Chemie - International Edition, 2012, 51, 2632-2635.	7.2	48
72	Comparative study of nanopores in activated carbons by HRTEM and adsorption methods. Carbon, 2012, 50, 3146-3153.	5.4	28

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73	Exfoliated production of single- and multi-layer graphenes and carbon nanofibres from the carbonisation of a co-polymer. Carbon, 2012, 50, 2018-2025.	5.4	4
74	Microstructure changes of polyurethane by inclusion of chemically modified carbon nanotubes at low filler contents. Composites Science and Technology, 2012, 72, 865-872.	3.8	38
75	High temperature oxidative resistance of polyacrylonitrile-methylmethacrylate copolymer powder converting to a carbonized monolith. European Polymer Journal, 2012, 48, 97-104.	2.6	58
76	Characterising Nanoporous Carbon Adsorbents for Biological Application to Chronic Kidney Disease. Journal of Biomaterials and Tissue Engineering, 2012, 2, 40-47.	0.0	5
77	Vibration reduction ability of MWCNT PVAc composites measured under high frequency for acoustic device application. Journal of Materials Chemistry, 2011, 21, 4150.	6.7	8
78	Competitive adsorption of macromolecules and real-time dynamics of Vroman-like effects. Physical Chemistry Chemical Physics, 2011, 13, 4476.	1.3	11
79	Porous structure and water state in cross-linked polymer and protein cryo-hydrogels. Soft Matter, 2011, 7, 4276.	1.2	73
80	Activation-Dependent Adsorption of Cytokines and Toxins Related to Liver Failure to Carbon Beads. Biomacromolecules, 2011, 12, 3733-3740.	2.6	26
81	pH-driven physicochemical conformational changes of single-layer graphene oxide. Chemical Communications, 2011, 47, 9645.	2.2	83
82	High efficiency removal of dissolved As(III) using iron nanoparticle-embedded macroporous polymer composites. Journal of Hazardous Materials, 2011, 192, 1002-1008.	6.5	91
83	Rapid assembly of carbon nanotube-based magnetic composites. Materials Chemistry and Physics, 2011, 128, 514-518.	2.0	16
84	Morphological effects of single-layer graphene oxide in the formation of covalently bonded polypyrrole composites using intermediate diisocyanate chemistry. Journal of Nanoparticle Research, 2011, 13, 4829-4837.	0.8	32
85	Activation and structural and adsorption features of activated carbons with highly developed micro-, meso- and macroporosity. Adsorption, 2011, 17, 453-460.	1.4	30
86	Inorganic coatings for cardiovascular stents: <i>In vitro</i> and <i>in vivo</i> studies. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 96B, 333-341.	1.6	17
87	One-pot preparation of functionalized nanostructured carbons. Carbon, 2011, 49, 599-604.	5.4	12
88	Adsorption of anionic and cationic dyes by activated carbons, PVA hydrogels, and PVA/AC composite. Journal of Colloid and Interface Science, 2011, 358, 582-592.	5.0	86
89	Morphological and chemical features of nano and macroscale carbons affecting hydrogen peroxide decomposition in aqueous media. Journal of Colloid and Interface Science, 2011, 361, 129-136.	5.0	35
90	Removal of hexavalent chromium by new quaternized crosslinked poly(4-vinylpyridines). Journal of Hazardous Materials, 2010, 183, 533-540.	6.5	64

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91	Gelatin–fibrinogen cryogel dermal matrices for wound repair: Preparation, optimisation and in vitro study. Biomaterials, 2010, 31, 67-76.	5.7	165
92	Mesoporous carbide-derived carbon for cytokine removal from blood plasma. Biomaterials, 2010, 31, 4789-4794.	5.7	46
93	Mechanical performance of highly compressible multi-walled carbon nanotube columns with hyperboloid geometries. Carbon, 2010, 48, 145-152.	5.4	24
94	Direct confirmation that carbon nanotubes still react covalently after removal of acid-oxidative lattice fragments. Carbon, 2010, 48, 916-918.	5.4	27
95	Real-time imaging of complex nanoscale mechanical responses of carbon nanotubes in highly compressible porous monoliths. Nanotechnology, 2010, 21, 075707.	1.3	11
96	Characterisation and performance of hydrogel tissue scaffolds. Soft Matter, 2010, 6, 5351.	1.2	25
97	Biomimetic Macroporous Hydrogels: Protein Ligand Distribution and Cell Response to the Ligand Architecture in the Scaffold. Journal of Biomaterials Science, Polymer Edition, 2009, 20, 1781-1795.	1.9	24
98	Developing decision support tools for the selection of "gentle―remediation approaches. Science of the Total Environment, 2009, 407, 6132-6142.	3.9	77
99	The in vitro corneal biocompatibility of hydroxyapatite coated carbon mesh. Biomaterials, 2009, 30, 3143-3149.	5.7	28
100	The surface acidity of acid oxidised multi-walled carbon nanotubes and the influence of in-situ generated fulvic acids on their stability in aqueous dispersions. Carbon, 2009, 47, 73-79.	5.4	198
101	The cytotoxicity of highly porous medical carbon adsorbents. Carbon, 2009, 47, 1887-1895.	5.4	15
102	Boronateâ€containing polymer brushes: Characterization, interaction with saccharides and mammalian cancer cells. Journal of Biomedical Materials Research - Part A, 2009, 88A, 213-225.	2.1	41
103	SAXS investigation of the structure of the pore walls in thermosensitive macroporous hydrogels. , 2009, , .		0
104	Characterization of Macroporous Gels. , 2009, , 211-235.		2
105	The feasibility of decontamination of reduced saline sediments from copper using the electrokinetic process. Journal of Environmental Management, 2008, 88, 1611-1618.	3.8	31
106	Inflammatory cytokine removal by an activated carbon device in a flowing system. Biomaterials, 2008, 29, 1638-1644.	5.7	34
107	Phase separation in the polyurethane/poly(2â€hydroxyethyl methacrylate) semiâ€interpenetrating polymer networks synthesized by different ways. Polymer Engineering and Science, 2008, 48, 588-597.	1.5	21
108	Thin semitransparent gels containing phenylboronic acid: porosity, optical response and permeability for sugars. Journal of Molecular Recognition, 2008, 21, 89-95.	1.1	16

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109	A test method to monitor in vitro storage and degradation effects on a skin substitute. Medical Engineering and Physics, 2008, 30, 640-646.	0.8	5
110	Geometric control and tuneable pore size distribution of buckypaper and buckydiscs. Carbon, 2008, 46, 949-956.	5 . 4	151
111	Assessment of tissue scaffold degradation using electrochemical techniques. Acta Biomaterialia, 2008, 4, 686-696.	4.1	5
112	Polymeric hydrogels for novel contact lens-based ophthalmic drug delivery systems: A review. Contact Lens and Anterior Eye, 2008, 31, 57-64.	0.8	254
113	Bioresorbable and Nonresorbable Macroporous Thermosensitive Hydrogels Prepared by Cryopolymerization. Role of the Cross-Linking Agent. Biomacromolecules, 2008, 9, 66-74.	2.6	61
114	In vitro cytotoxicity assessment of carbon fabric coated with calcium phosphate. New Carbon Materials, 2008, 23, 139-143.	2.9	15
115	Dissociation of carbon dioxide and creation of carbon particles and films at room temperature. New Journal of Physics, 2007, 9, 321-321.	1.2	20
116	Calcium phosphate sonoelectrodeposition on carbon fabrics and its effect on osteoblast cell viability in vitro. New Carbon Materials, 2007, 22, 121-125.	2.9	28
117	Characterisation of the nanoporous structure of collagen-glycosaminoglycan hydrogels by freezing-out of bulk and bound water. Biomaterials, 2006, 27, 3599-607.	5.7	20
118	The in vitro adsorption of cytokines by polymer-pyrolysed carbon. Biomaterials, 2006, 27, 5286-5291.	5.7	38
119	Mesoporous carbide-derived carbon with porosity tuned for efficient adsorption of cytokines. Biomaterials, 2006, 27, 5755-5762.	5.7	119
120	Pore structure of macroporous monolithic cryogels prepared from poly(vinyl alcohol). Journal of Applied Polymer Science, 2006, 100, 1057-1066.	1.3	91
121	CHARACTERIZATION OF HARD AND SOFT POROUS MATERIALS AND TISSUE SCAFFOLDS. , 2006, , 309-320.		3
122	Assessing the in vitro biocompatibility of a novel carbon device for the treatment of sepsis. Biomaterials, 2005, 26, 7124-7131.	5.7	28
123	Pore structure in supermacroporous polyacrylamide based cryogels. Soft Matter, 2005, 1, 303.	1.2	222
124	Investigation of Structural and Adsorptive Characteristics of Various Carbons. Adsorption, 2005, 11, 657-662.	1.4	15
125	On the topographical characterisation of biomaterial surfaces. , 2005, , 693-716.		2
126	Issues concerning the use of assays of cell adhesion to biomaterials. , 2005, , 745-762.		0

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127	Gradient semi-interpenetrating polymer networks based on polyurethane and poly(vinyl pyrrolidone). Journal of Materials Chemistry, 2005, 15, 499.	6.7	30
128	Structural and Adsorption Characteristics of Porous Industrial Diamond., 2005,, 169-182.		1
129	Fibrinogen adsorption and platelet adhesion to metal and carbon coatings. Thrombosis and Haemostasis, 2004, 92, 1032-1039.	1.8	38
130	High-Porosity Activated Carbon as a Possible Matrix For Native DNA and Dextran-Sulfate Immobilization. Artificial Cells, Blood Substitutes, and Biotechnology, 2004, 32, 529-537.	0.9	3
131	In vitro host response assessment of biomaterials for cardiovascular stent manufacture. Journal of Materials Science: Materials in Medicine, 2004, 15, 473-477.	1.7	38
132	Evaluation of slitlike porosity of carbon adsorbents. Carbon, 2004, 42, 843-849.	5.4	116
133	Deploying a metal adsorbent in situ: a technique for indicating bioavailable Cd(II) in marine waters. Water Research, 2004, 38, 1586-1594.	5.3	3
134	Real-time monitoring of cellular integration within bulk soft tissue scaffold materials. Journal of Materials Chemistry, 2003, 13, 654-656.	6.7	6
135	Emerging technologies in extracorporeal treatment: focus on adsorption. Perfusion (United) Tj ETQq $1\ 1\ 0.784314$	rgBT/Ove	erlock 10 Tf
136	Cesium and Strontium Ion Exchange on the Framework Titanium Silicate M2Ti2O3SiO4·nH2O (M = H,) Tj ETQq0	0.0 rgBT /	Overlock 10
137	The Hydrophobisation of Activated Carbon Surfaces by Organic Functional Groups. Adsorption Science and Technology, 2000, 18, 55-64.	1.5	14
138	A cell kinetic analysis of human umbilical vein endothelial cells. Mechanisms of Ageing and Development, 2000, 120, 23-32.	2.2	31
139	Biotransformation of oxidised anions by selected bacteria. Process Metallurgy, 1999, , 673-680.	0.1	O
140	Heavy metal adsorption on bacterially produced FeS. Minerals Engineering, 1995, 8, 1097-1108.	1.8	80
141	Influence of porous structure of active carbons on the chemical transformation of surface functional groups. Studies in Surface Science and Catalysis, 1994, 87, 705-713.	1.5	0