Sergey Mikhalovsky

List of Publications by Year
in descending order

141	5,288	94269	98622
papers	citations	37 h-index	67 g-index

144	144	144	7301
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	Cryogels: Morphological, structural and adsorption characterisation. Advances in Colloid and Interface Science, 2013, 187-188, 1-46.	7.0	250
3	Pore structure in supermacroporous polyacrylamide based cryogels. Soft Matter, 2005, 1, 303.	1.2	222
4	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
5	Nano carriers for drug transport across the bloodâ€“brain barrier. Journal of Drug Targeting, 2017, 25, 17-28.	2.1	187
6	MXene Sorbents for Removal of Urea from Dialysate: A Step toward the Wearable Artificial Kidney. ACS Nano, 2018, 12, 10518-10528.	7.3	174
7	Gelatinâ€“fibrinogen cryogel dermal matrices for wound repair: Preparation, optimisation and in vitro study. Biomaterials, 2010, 31, 67-76.	5.7	165
8	Properties of Water Bound in Hydrogels. Gels, 2017, 3, 37.	2.1	162
9	Geometric control and tuneable pore size distribution of buckypaper and buckydiscs. Carbon, 2008, 46, 949-956.	5.4	151
10	Mesoporous carbide-derived carbon with porosity tuned for efficient adsorption of cytokines. Biomaterials, 2006, 27, 5755-5762.	5.7	119
11	Evaluation of slitlike porosity of carbon adsorbents. Carbon, 2004, 42, 843-849.	5.4	116
12	Driving Forces of Conformational Changes in Single-Layer Graphene Oxide. ACS Nano, 2012, 6, 3967-3973.	7.3	107
13	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
14	Pore structure of macroporous monolithic cryogels prepared from poly(vinyl alcohol). Journal of Applied Polymer Science, 2006, 100, 1057-1066.	1.3	91
15	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
16	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
17	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
18	pH-driven physicochemical conformational changes of single-layer graphene oxide. Chemical Communications, 2011, 47, 9645.	2.2	83

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19	Heavy metal adsorption on bacterially produced FeS. Minerals Engineering, 1995, 8, 1097-1108.	1.8	80
20	Developing decision support tools for the selection of â€œgentleâ€•remediation approaches. Science of the Total Environment, 2009, 407, 6132-6142.	3.9	77
21	Porous structure and water state in cross-linked polymer and protein cryo-hydrogels. Soft Matter, 2011, 7, 4276.	1.2	73
22	Removal of hexavalent chromium by new quaternized crosslinked poly(4-vinylpyridines). Journal of Hazardous Materials, 2010, 183, 533-540.	6.5	64
23	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
24	Bioresorbable and Nonresorbable Macroporous Thermosensitive Hydrogels Prepared by Cryopolymerization. Role of the Cross-Linking Agent. Biomacromolecules, 2008, 9, 66-74.	2.6	61
25	Emerging technologies in extracorporeal treatment: focus on adsorption. Perfusion (United) Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.5	59
26	High temperature oxidative resistance of polyacrylonitrile-methylmethacrylate copolymer powder converting to a carbonized monolith. European Polymer Journal, 2012, 48, 97-104.	2.6	58
27	Cesium and Strontium Ion Exchange on the Framework Titanium Silicate M2Ti2O3SiO4Â·nH2O (M = H,) Tj ETQq1 1 0.784314 rgBT /O	4.6	55
28	Therapeutic potential of electromagnetic fields for tissue engineering and wound healing. Cell Proliferation, 2014, 47, 485-493.	2.4	54
29	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
30	Hyperstoichiometric Interaction Between Silver and Mercury at the Nanoscale. Angewandte Chemie - International Edition, 2012, 51, 2632-2635.	7.2	48
31	Repairing Peripheral Nerves: Is there a Role for Carbon Nanotubes?. Advanced Healthcare Materials, 2016, 5, 1253-1271.	3.9	47
32	Mesoporous carbide-derived carbon for cytokine removal from blood plasma. Biomaterials, 2010, 31, 4789-4794.	5.7	46
33	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
34	Novel nanostructured iron oxide cryogels for arsenic (As(III)) removal. Journal of Hazardous Materials, 2020, 381, 120996.	6.5	43
35	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
36	Fibrinogen adsorption and platelet adhesion to metal and carbon coatings. Thrombosis and Haemostasis, 2004, 92, 1032-1039.	1.8	38

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37	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
38	The in vitro adsorption of cytokines by polymer-pyrolysed carbon. Biomaterials, 2006, 27, 5286-5291.	5.7	38
39	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
40	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
41	Inflammatory cytokine removal by an activated carbon device in a flowing system. Biomaterials, 2008, 29, 1638-1644.	5.7	34
42	Hierarchical Porous Carbideâ€Derived Carbons for the Removal of Cytokines from Blood Plasma. Advanced Healthcare Materials, 2012, 1, 796-800.	3.9	33
43	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
44	Adsorption of Bovine Serum Albumin on Carbon-Based Materials. Journal of Carbon Research, 2018, 4, 3.	1.4	32
45	A cell kinetic analysis of human umbilical vein endothelial cells. Mechanisms of Ageing and Development, 2000, 120, 23-32.	2.2	31
46	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
47	Cottonised flax fibres vs. cotton fibres: structural, textural and adsorption characteristics. RSC Advances, 2012, 2, 2032.	1.7	31
48	Gradient semi-interpenetrating polymer networks based on polyurethane and poly(vinyl pyrrolidone). Journal of Materials Chemistry, 2005, 15, 499.	6.7	30
49	Activation and structural and adsorption features of activated carbons with highly developed micro-, meso- and macroporosity. Adsorption, 2011, 17, 453-460.	1.4	30
50	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
51	Preparation of liposomes containing small gold nanoparticles using electrostatic interactions. European Journal of Pharmaceutical Sciences, 2017, 105, 55-63.	1.9	29
52	Electrically conductive MEH-PPV:PCL electrospun nanofibres for electrical stimulation of rat PC12 pheochromocytoma cells. Biomaterials Science, 2018, 6, 2342-2359.	2.6	29
53	Assessing the in vitro biocompatibility of a novel carbon device for the treatment of sepsis. Biomaterials, 2005, 26, 7124-7131.	5.7	28
54	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

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55	The in vitro corneal biocompatibility of hydroxyapatite coated carbon mesh. Biomaterials, 2009, 30, 3143-3149.	5.7	28
56	Comparative study of nanopores in activated carbons by HRTEM and adsorption methods. Carbon, 2012, 50, 3146-3153.	5.4	28
57	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
58	Composite Cryogel with Polyelectrolyte Complexes for Growth Factor Delivery. Pharmaceutics, 2019, 11, 650.	2.0	28
59	Direct confirmation that carbon nanotubes still react covalently after removal of acid-oxidative lattice fragments. Carbon, 2010, 48, 916-918.	5.4	27
60	Activation-Dependent Adsorption of Cytokines and Toxins Related to Liver Failure to Carbon Beads. Biomacromolecules, 2011, 12, 3733-3740.	2.6	26
61	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
62	Characterisation and performance of hydrogel tissue scaffolds. Soft Matter, 2010, 6, 5351.	1.2	25
63	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
64	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
65	Mechanical performance of highly compressible multi-walled carbon nanotube columns with hyperboloid geometries. Carbon, 2010, 48, 145-152.	5.4	24
66	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
67	In Vitro Biocompatibility of Multiwalled Carbon Nanotubes with Sensory Neurons. Advanced Healthcare Materials, 2013, 2, 728-735.	3.9	24
68	Amine-Functionalized Electrically Conductive Coreâ€“Sheath MEH-PPV:PCL Electrospun Nanofibers for Enhanced Cellâ€“Biomaterial Interactions. ACS Biomaterials Science and Engineering, 2018, 4, 3327-3346.	2.6	24
69	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
70	Gradient semi-interpenetrating polymer networks based on polyurethane and poly(2-hydroxyethyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	6.7	22
71	The role of interfacial chemistry and interactions in the dynamics of thermosetting polyurethaneâ€“multiwalled carbon nanotube composites at low filler contents. Colloid and Polymer Science, 2013, 291, 573-583.	1.0	22
72	Graphene-Based Materials for the Fast Removal of Cytokines from Blood Plasma. ACS Applied Bio Materials, 2018, 1, 436-443.	2.3	22

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73	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
74	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
75	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
76	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
77	Polyurethaneâ€“poly(2-hydroxyethyl methacrylate) semi-IPNâ€“nanooxide composites. RSC Advances, 2013, 3, 14560.	1.7	18
78	Adsorption of proteins in channels of carbon nanotubes: Effect of surface chemistry. Materials Express, 2013, 3, 1-10.	0.2	18
79	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
80	Inorganic coatings for cardiovascular stents: In vitro and in vivo studies. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 96B, 333-341.	1.6	17
81	Thin semitransparent gels containing phenylboronic acid: porosity, optical response and permeability for sugars. Journal of Molecular Recognition, 2008, 21, 89-95.	1.1	16
82	Rapid assembly of carbon nanotube-based magnetic composites. Materials Chemistry and Physics, 2011, 128, 514-518.	2.0	16
83	Nanosized copper(<scp>ii</scp>) oxide/silica for catalytic generation of nitric oxide from S-nitrosothiols. Journal of Materials Chemistry B, 2020, 8, 4267-4277.	2.9	16
84	Investigation of Structural and Adsorptive Characteristics of Various Carbons. Adsorption, 2005, 11, 657-662.	1.4	15
85	In vitro cytotoxicity assessment of carbon fabric coated with calcium phosphate. New Carbon Materials, 2008, 23, 139-143.	2.9	15
86	The cytotoxicity of highly porous medical carbon adsorbents. Carbon, 2009, 47, 1887-1895.	5.4	15
87	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
88	The Hydrophobisation of Activated Carbon Surfaces by Organic Functional Groups. Adsorption Science and Technology, 2000, 18, 55-64.	1.5	14
89	Dynamics, thermal behaviour and elastic properties of thin films of poly(vinyl alcohol) nanocomposites. RSC Advances, 2012, 2, 1424-1431.	1.7	14
90	A comparative study of air-dry and water swollen flax and cotton fibres. RSC Advances, 2012, 2, 2868.	1.7	13

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91	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
92	Metal chelation by a plant lignan, secoisolariciresinol diglucoside. Journal of Inclusion Phenomena and Macrocyclic Chemistry, 2014, 80, 345-351.	0.9	13
93	Impact of electromagnetic fields on in vitro toxicity of silver and graphene nanoparticles. Electromagnetic Biology and Medicine, 2019, 38, 21-31.	0.7	13
94	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
95	One-pot preparation of functionalized nanostructured carbons. Carbon, 2011, 49, 599-604.	5.4	12
96	Biomedical Applications of Carbon Adsorbents. , 2012, , 639-669.		12
97	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
98	Small angle neutron scattering study of globular proteins confined in porous carbons. Carbon, 2016, 106, 142-151.	5.4	12
99	Rapid Adsorption of Proinflammatory Cytokines by Graphene Nanoplatelets and Their Composites for Extracorporeal Detoxification. Journal of Nanomaterials, 2018, 2018, 1-8.	1.5	12
100	Surface-Functionalized Conducting Nanofibers for Electrically Stimulated Neural Cell Function. Biomacromolecules, 2021, 22, 594-611.	2.6	12
101	Real-time imaging of complex nanoscale mechanical responses of carbon nanotubes in highly compressible porous monoliths. Nanotechnology, 2010, 21, 075707.	1.3	11
102	Competitive adsorption of macromolecules and real-time dynamics of Vroman-like effects. Physical Chemistry Chemical Physics, 2011, 13, 4476.	1.3	11
103	Double probe approach to protein adsorption on porous carbon surfaces. Carbon, 2017, 112, 103-110.	5.4	11
104	Single-Layer Graphenes Functionalized with Polyurea: Architectural Control and Biomolecule Reactivity. Journal of Physical Chemistry C, 2013, 117, 11829-11836.	1.5	10
105	Bio-effects of non-ionizing electromagnetic fields in context of cancer therapy. Frontiers in Bioscience - Elite, 2014, E6, 175-184.	0.9	10
106	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
107	Synthesis and applications of copillar[5]arene dithiols. Supramolecular Chemistry, 2016, 28, 436-443.	1.5	10
108	Synthesis of the polymerizable room temperature ionic liquid AMPS â€“ TEA and superabsorbency for organic liquids of its copolymeric gels with acrylamide. Designed Monomers and Polymers, 2014, 17, 140-146.	0.7	9

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109	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
110	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
111	Synthesis and Application of Hydride Silica Composites for Rapid and Facile Removal of Aqueous Mercury. ChemPhysChem, 2013, 14, 4126-4133.	1.0	8
112	Functionalization of biosourced silica and surface reactions with mercury in aqueous solutions. Chemical Engineering Journal, 2021, 423, 129745.	6.6	8
113	Real-time monitoring of cellular integration within bulk soft tissue scaffold materials. Journal of Materials Chemistry, 2003, 13, 654-656.	6.7	6
114	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
115	Synthesis, Chloramphenicol Uptake, and In Vitro Release of Poly(AMPSâ€“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
116	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
117	Assessment of tissue scaffold degradation using electrochemical techniques. Acta Biomaterialia, 2008, 4, 686-696.	4.1	5
118	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
119	Characterising Nanoporous Carbon Adsorbents for Biological Application to Chronic Kidney Disease. Journal of Biomaterials and Tissue Engineering, 2012, 2, 40-47.	0.0	5
120	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
121	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
122	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
123	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
124	Development of Cu-Modified PVC and PU for Catalytic Generation of Nitric Oxide. Colloids and Interfaces, 2019, 3, 33.	0.9	3
125	CHARACTERIZATION OF HARD AND SOFT POROUS MATERIALS AND TISSUE SCAFFOLDS. , 2006, , 309-320.		3
126	On the topographical characterisation of biomaterial surfaces. , 2005, , 693-716.		2

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127	Cationic ring-opening polymerization of lactones onto chemically modified single layer graphene oxide. Materials Express, 2014, 4, 242-246.	0.2	2
128	Characterization of Macroporous Gels. , 2009, , 211-235.		2
129	Synthetic Amphoteric Cryogels as an Antidote against Acute Heavy Metal Poisoning. Molecules, 2021, 26, 7601.	1.7	2
130	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
131	Cryogels in Regenerative Medicine. , 2016, , 179-198.		1
132	Structural and Adsorption Characteristics of Porous Industrial Diamond. , 2005, , 169-182.		1
133	Enterosorption in the Treatment of Heavy Metal Poisoning. Chemistry Journal of Moldova, 2021, 16, 9-27.	0.3	1
134	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
135	Biotransformation of oxidised anions by selected bacteria. Process Metallurgy, 1999, , 673-680.	0.1	0
136	Issues concerning the use of assays of cell adhesion to biomaterials. , 2005, , 745-762.		0
137	SAXS investigation of the structure of the pore walls in thermosensitive macroporous hydrogels. , 2009, , .		0
138	Does flaxLinum usitatissimumpositively impact populations of declining farmland birds?. Bird Study, 2014, 61, 42-47.	0.4	0
139	Current state of chronic wound care in Kazakhstan: focus on topical treatments. Russian Open Medical Journal, 2015, 4, e0104.	0.1	0
140	Therapeutic Potential of Noble Nanoparticles for Wound Repair. Central Asian Journal of Global Health, 2014, 3, 172.	0.6	0
141	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	0