Alexey Kondyurin

List of Publications by Year
in descending order

144	2,658	249298	274796
papers	citations	26 h-index	44 g-index

145	145	145	3329
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	To Avoid A Foreign Body Reaction For Polyurethane Implants Modified By High-Energy Ions. , 2021, , .		0
2	Extracellular Vesicle-Based Coatings Enhance Bioactivity of Titanium Implantsâ€"SurfEV. Nanomaterials, 2021, 11, 1445.	1.9	7
3	Computational Modeling of the Curing of a Frame of an Inflatable Satellite Antenna in Near-Earth Orbit. Journal of Applied Mechanics and Technical Physics, 2021, 62, 1234-1242.	0.1	1
4	Hydrogelâ^'Solid Hybrid Materials for Biomedical Applications Enabled by Surfaceâ€Embedded Radicals. Advanced Functional Materials, 2020, 30, 2004599.	7.8	26
5	The protein corona determines the cytotoxicity of nanodiamonds: implications of corona formation and its remodelling on nanodiamond applications in biomedical imaging and drug delivery. Nanoscale Advances, 2020, 2, 4798-4812.	2.2	17
6	Covalent Biofunctionalization of the Inner Surfaces of a Hollow-Fiber Capillary Bundle Using Packed-Bed Plasma Ion Implantation. ACS Applied Materials & Interfaces, 2020, 12, 32163-32174.	4.0	9
7	Biological impact of nanodiamond particles â€“ label free, high-resolution methods for nanotoxicity assessment. Nanotoxicology, 2019, 13, 1210-1226.	1.6	8
8	Electric field assisted ion exchange of silver in soda-lime glass: A study of ion depletion layers and interactions with potassium. Journal of Applied Physics, 2019, 125, .	1.1	15
9	Chemical toughening of glass by potassium diffusion: how non-bridging oxygen and a surface calcium barrier limit the process. Journal of the Ceramic Society of Japan, 2019, 127, 98-104.	0.5	3
10	Weakened foreign body response to medical polyureaurethane treated by plasma immersion ion implantation. Nuclear Instruments & Methods in Physics Research B, 2019, 440, 163-174.	0.6	16
11	Enhanced biocompatibility of polyurethane-type shape memory polymers modified by plasma immersion ion implantation treatment and collagen coating: An in vivo study. Materials Science and Engineering C, 2019, 99, 863-874.	3.8	19
12	Exploiting sensor geometry for enhanced gas sensing properties of fluorinated carbon nanotubes under humid environment. Sensors and Actuators B: Chemical, 2019, 281, 945-952.	4.0	28
13	Plasmaâ€Activated Substrate with a Tropoelastin Anchor for the Maintenance and Delivery of Multipotent Adult Progenitor Cells. Macromolecular Bioscience, 2019, 19, 1800233.	2.1	5
14	Effect of plasma immersion ion implantation on polycaprolactone with various molecular weights and crystallinity. Journal of Materials Science: Materials in Medicine, 2018, 29, 5.	1.7	11
15	Improved Multiprotein Microcontact Printing on Plasma Immersion Ion Implanted Polystyrene. ACS Applied Materials & Interfaces, 2018, 10, 227-237.	4.0	15
16	Plasma processing of PDMS based spinal implants for covalent protein immobilization, cell attachment and spreading. Journal of Materials Science: Materials in Medicine, 2018, 29, 178.	1.7	7
17	Bound (â€œGlassyâ€) Rubber as a Free Radical Cross-linked Rubber Layer on a Carbon Black. Materials, 2018, 11, 1992.	1.3	8
18	Curing of large prepreg shell in solar synchronous Low Earth Orbit: Precession flight regimes. Acta Astronautica, 2018, 151, 342-347.	1.7	6

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19	EPDM Rubber Modified by Nitrogen Plasma Immersion Ion Implantation. Materials, 2018, 11, 657.	1.3	4
20	Plasma Ion Implantation of Silk Biomaterials Enabling Direct Covalent Immobilization of Bioactive Agents for Enhanced Cellular Responses. ACS Applied Materials & Interfaces, 2018, 10, 17605-17616.	4.0	36
21	A sterilizable, biocompatible, tropoelastin surface coating immobilized by energetic ion activation. Journal of the Royal Society Interface, 2017, 14, 20160837.	1.5	19
22	Plasma immersion ion implantation of polyurethane shape memory polymer: Surface properties and protein immobilization. Applied Surface Science, 2017, 416, 686-695.	3.1	30
23	Fabrication of Antimicrobial Poly(propylene carbonate) Film by Plasma Surface Modification. Industrial & Engineering Chemistry Research, 2017, 56, 12578-12587.	1.8	13
24	Plasma mediated protein immobilisation enhances the vascular compatibility of polyurethane with tissue matched mechanical properties. Biomedical Materials (Bristol), 2017, 12, 045002.	1.7	17
25	Structural Analysis and Protein Functionalization of Electroconductive Polypyrrole Films Modified by Plasma Immersion Ion Implantation. ACS Biomaterials Science and Engineering, 2017, 3, 2247-2258.	2.6	10
26	Nanotoxicity of nanodiamond in two and three dimensional liver models. International Journal of Nanotechnology, 2017, 14, 133.	0.1	9
27	Biospectroscopy of Nanodiamond-Induced Alterations in Conformation of Intra- and Extracellular Proteins: A Nanoscale IR Study. Analytical Chemistry, 2016, 88, 7530-7538.	3.2	50
28	Covalent linker-free immobilization of conjugatable oligonucleotides on polypropylene surfaces. RSC Advances, 2016, 6, 83328-83336.	1.7	12
29	Plasma-Activated Tropoelastin Functionalization of Zirconium for Improved Bone Cell Response. ACS Biomaterials Science and Engineering, 2016, 2, 662-676.	2.6	23
30	First Stratospheric Flight of Preimpregnated Uncured Epoxy Matrix. Journal of Spacecraft and Rockets, 2016, 53, 1019-1027.	1.3	2
31	Plasma Ion Activated Expanded Polytetrafluoroethylene Vascular Grafts with a Covalently Immobilized Recombinant Human Tropoelastin Coating Reducing Neointimal Hyperplasia. ACS Biomaterials Science and Engineering, 2016, 2, 1286-1297.	2.6	19
32	Cost-Effective Creation of Biofunctionalised Scaffolds, Tailored to Function as Stem Cell Niches for Expansion, Transport and Delivery. Cytotherapy, 2016, 18, S60.	0.3	1
33	Plasma immersion ion implantation of a two-phase blend of polysulfone and polyvinylpyrrolidone. Materials and Design, 2016, 97, 381-391.	3.3	8
34	Deployment of Large-Size Shell Constructions by Internal Pressure. Mechanics of Composite Materials, 2015, 51, 629-636.	0.9	2
35	Biointerfaces: Nanoâ€Bioâ€Chemical Braille for Cells: The Regulation of Stem Cell Responses using Biâ€Functional Surfaces (Adv. Funct. Mater. 2/2015). Advanced Functional Materials, 2015, 25, 339-339.	7.8	3
36	Ion beam synthesis. , 2015, , 175-183.		1

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37	Polymerization of liquid polymer matrix in free-space environment. , 2015, , 231-259.		0
38	Immobilization of bioactive plasmin reduces the thrombogenicity of metal surfaces. Colloids and Surfaces B: Biointerfaces, 2015, 136, 944-954.	2.5	12
39	Bio-functionalisation of polyether ether ketone using plasma immersion ion implantation. Proceedings of SPIE, 2015, , .	0.8	1
40	Hybrid Carbon-Based Nanostructured Platforms for the Advanced Bioreactors. Journal of Nanoscience and Nanotechnology, 2015, 15, 10074-10090.	0.9	2
41	Bio-Activation of Polyether Ether Ketone Using Plasma Immersion Ion Implantation: A Kinetic Model. Plasma Processes and Polymers, 2015, 12, 180-193.	1.6	24
42	Interactions of energetic ions with polymers: chemical picture. , 2015, , 29-67.		1
43	Biological and medical applications. , 2015, , 185-216.		2
44	Microscopic unravelling of nano-carbon doping in MgB2 superconductors fabricated by diffusion method. Journal of Alloys and Compounds, 2015, 644, 900-905.	2.8	17
45	Depth-Resolved Structural and Compositional Characterization of Ion-Implanted Polystyrene that Enables Direct Covalent Immobilization of Biomolecules. Journal of Physical Chemistry C, 2015, 119, 16793-16803.	1.5	21
46	Adhesion. , 2015, , 145-160.		0
47	Orientation and conformation of anti-CD34 antibody immobilised on untreated and plasma treated polycarbonate. Acta Biomaterialia, 2015, 19, 128-137.	4.1	28
48	Nanoâ€Bioâ€Chemical Braille for Cells: The Regulation of Stem Cell Responses using Biâ€Functional Surfaces. Advanced Functional Materials, 2015, 25, 193-205.	7.8	36
49	Hardness. , 2015, , 161-173.		0
50	Graded metal carbon protein binding films prepared by hybrid cathodic arc â€" Glow discharge plasma assisted chemical vapor deposition. Surface and Coatings Technology, 2015, 265, 222-234.	2.2	10
51	Ion implantation treatment of beads for covalent binding of molecules: Application to bioethanol production using thermophilic beta-glucosidase. Enzyme and Microbial Technology, 2014, 54, 20-24.	1.6	18
52	TCT-433 Plasmin Immobilization for Reduced Thrombogenicity of Metallic Implants. Journal of the American College of Cardiology, 2014, 64, B127.	1.2	2
53	Cell growing on ion implanted polytetrafluorethylene. Applied Surface Science, 2014, 314, 670-678.	3.1	13
54	Increasing binding density of yeast cells by control of surface charge with allylamine grafting to ion modified polymer surfaces. Colloids and Surfaces B: Biointerfaces, 2014, 122, 537-544.	2.5	3

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55	Immobilisation of a fibrillin-1 fragment enhances the biocompatibility of PTFE. Colloids and Surfaces B: Biointerfaces, 2014, 116, 544-552.	2.5	17
56	Cluster of differentiation antibody microarrays on plasma immersion ion implanted polycarbonate. Materials Science and Engineering C, 2014, 35, 434-440.	3.8	16
57	Surface plasma modification and tropoelastin coating of a polyurethane co-polymer for enhanced cell attachment and reduced thrombogenicity. Biomaterials, 2014, 35, 6797-6809.	5.7	74
58	Hybrid graphite filmâ€“carbon nanotube platform for enzyme immobilization and protection. Carbon, 2013, 65, 287-295.	5.4	25
59	Influence of pH on yeast immobilization on polystyrene surfaces modified by energetic ion bombardment. Colloids and Surfaces B: Biointerfaces, 2013, 104, 145-152.	2.5	22
60	Ordered HAp nanoarchitecture formed on HApâ€“TCP bioceramics by â€œnanocarvingâ€•and mineralization deposition and its potential use for guiding cell behaviors. Journal of Materials Chemistry B, 2013, 1, 2455.	2.9	23
61	With reference to article: â€œImpact of the first-generation drug-eluting stent implantation on periprocedural myocardial injury in patients with stable angina pectorisâ€• Dewetting problem. Journal of Cardiology, 2013, 62, 265-266.	0.8	1
62	The use of plasma-activated covalent attachment of early domains of tropoelastin to enhance vascular compatibility of surfaces. Biomaterials, 2013, 34, 7584-7591.	5.7	37
63	Carbon nanostructures for hard tissue engineering. RSC Advances, 2013, 3, 11058.	1.7	62
64	Radiation damage of polyethylene exposed in the stratosphere at an altitude ofÂ40Âkm. Polymer Degradation and Stability, 2013, 98, 1526-1536.	2.7	9
65	Ion implanted, radical-rich surfaces for the rapid covalent immobilization of active biomolecules. , 2013, , .		2
66	CelB and Î²-glucosidase immobilization for carboxymethyl cellulose hydrolysis. RSC Advances, 2013, 3, 23604.	1.7	13
67	Curing of Construction Composite Materials on Asteroids. , 2013, , 379-401.		0
68	Mechanisms for Covalent Immobilization of Horseradish Peroxidase on Ion-Beam-Treated Polyethylene. Scientifica, 2012, 2012, 1-28.	0.6	22
69	Ion-implanted polytetrafluoroethylene enhances Saccharomyces cerevisiae biofilm formation for improved immobilization. Journal of the Royal Society Interface, 2012, 9, 2923-2935.	1.5	16
70	Cell patterning via linker-free protein functionalization of an organic conducting polymer (polypyrrole) electrode. Acta Biomaterialia, 2012, 8, 2538-2548.	4.1	40
71	Plasma-based biofunctionalization of vascular implants. Nanomedicine, 2012, 7, 1907-1916.	1.7	40
72	A facile method to in situ formation of hydroxyapatite single crystal architecture for enhanced osteoblast adhesion. Journal of Materials Chemistry, 2012, 22, 19081.	6.7	25

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73	Biointerface: protein enhanced stem cells binding to implant surface. Journal of Materials Science: Materials in Medicine, 2012, 23, 2203-2215.	1.7	20
74	Curing of Composite Materials for an Inflatable Construction on the Moon. , 2012, , 503-518.		5
75	Direct Curing of Polymer Construction Material in Simulated Earth's Moon Surface Environment. Journal of Spacecraft and Rockets, 2011, 48, 378-384.	1.3	7
76	Effect of Low Molecular Weight Additives on Immobilization Strength, Activity, and Conformation of Protein Immobilized on PVC and UHMWPE. Langmuir, 2011, 27, 6138-6148.	1.6	29
77	Surface attachment of horseradish peroxidase to nylon modified by plasmaâ€immersion ion implantation. Journal of Applied Polymer Science, 2011, 120, 2891-2903.	1.3	20
78	Etching and structure changes in PMMA coating under argon plasma immersion ion implantation. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 1361-1369.	0.6	25
79	Electrically conductive hexagonally ordered nanoporous membranes produced by ion-beam induced carbonization of block-copolymer precursors. Nanotechnology, 2011, 22, 305603.	1.3	2
80	Universal Biomolecule Binding Interlayers Created by Energetic Ion Bombardment. Materials Research Society Symposia Proceedings, 2011, 1354, 3.	0.1	0
81	Free radical functionalization of surfaces to prevent adverse responses to biomedical devices. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 14405-14410.	3.3	178
82	Etching and structure transformations in uncured epoxy resin under rf-plasma and plasma immersion ion implantation. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 1568-1580.	0.6	15
83	Substrate elasticity provides mechanical signals for the expansion of hemopoietic stem and progenitor cells. Nature Biotechnology, 2010, 28, 1123-1128.	9.4	244
84	Plasma Polymer Surfaces Compatible with a CMOS Process for Direct Covalent Enzyme Immobilization. Plasma Processes and Polymers, 2009, 6, 68-75.	1.6	27
85	Acetylene plasma polymerized surfaces for covalent immobilization of dense bioactive protein monolayers. Surface and Coatings Technology, 2009, 203, 1310-1316.	2.2	50
86	Mechanisms for surface energy changes observed in plasma immersion ion implanted polyethylene: The roles of free radicals and oxygen-containing groups. Polymer Degradation and Stability, 2009, 94, 638-646.	2.7	63
87	Calcium phosphate formation on plasma immersion ion implanted low density polyethylene and polytetrafluorethylene surfaces. Journal of Materials Science: Materials in Medicine, 2008, 19, 1145-1153.	1.7	11
88	Nanostructured Carbonized Thin Films Produced by Plasma Immersion Ion Implantation of Blockâ€Copolymer Assemblies. Plasma Processes and Polymers, 2008, 5, 155-160.	1.6	12
89	Reducing Water Permeability while Maintaining Transparency of PET: A Plasma Immersion Ion Implantation Study. Plasma Processes and Polymers, 2008, 5, 834-839.	1.6	10
90	Covalent Attachment and Bioactivity of Horseradish Peroxidase on Plasmaâ€Polymerized Hexane Coatings. Plasma Processes and Polymers, 2008, 5, 727-736.	1.6	20

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91	Attachment of horseradish peroxidase to polytetrafluorethylene (teflon) after plasma immersion ion implantation. Acta Biomaterialia, 2008, 4, 1218-1225.	4.1	62
92	Structure of polymers after ion beam treatment. , 2008, , 75-145.		2
93	Ion beam synthesis. , 2008, , 195-204.		0
94	Adhesion. , 2008, , 161-178.		0
95	Dewetting of thin polymer film on rough substrate: II. Experiment. Journal Physics D: Applied Physics, 2008, 41, 065307.	1.3	24
96	Dewetting of thin polymer film on rough substrate: I. Theory. Journal Physics D: Applied Physics, 2008, 41, 065306.	1.3	22
97	Interaction of ion beam with polymer. , 2008, , 29-73.		2
98	Interactions of ion beam with polymer. , 2008, , 1-10.		3
99	Sources for ion beam treatment. , 2008, , 11-28.		1
100	Wetting. , 2008, , 147-160.		1
101	Biological and medical applications. , 2008, , 205-241.		2
102	Protection in an aggressive environment. , 2008, , 243-260.		0
103	Hardness. , 2008, , 179-194.		0
104	Polymerization of liquid polymer matrix in free space environment. , 2008, , 261-302.		0
105	MoirÃ© Patterns in Superimposed Nanoporous Thin Films Derived from Block-Copolymer Assemblies. Nano Letters, 2007, 7, 3628-3632.	4.5	45
106	Comparison of Protein Surface Attachment on Untreated and Plasma Immersion Ion Implantation Treated Polystyrene: Protein Islands and Carpet. Langmuir, 2007, 23, 2741-2746.	1.6	54
107	The attachment of catalase and poly-l-lysine to plasma immersion ion implantation-treated polyethylene. Acta Biomaterialia, 2007, 3, 695-704.	4.1	53
108	Photopolymerisation of composite material in simulated free space environment at low Earth orbital flight. European Polymer Journal, 2006, 42, 2703-2714.	2.6	16

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109	Polymerisation of composite materials in space environment for development of a Moon base. Advances in Space Research, 2006, 37, 109-115.	1.2	26
110	Plasma immersion ion implantation of Pebax polymer. Nuclear Instruments & Methods in Physics Research B, 2006, 251, 407-412.	0.6	16
111	Etching and structural changes of polystyrene films during plasma immersion ion implantation from argon plasma. Nuclear Instruments & Methods in Physics Research B, 2006, 251, 413-418.	0.6	57
112	Crosslinked Polyurethane Coating on Vascular Stents for Enhanced X-ray Contrast. Journal of Bioactive and Compatible Polymers, 2005, 20, 77-93.	0.8	14
113	Polymerization Processes of Epoxy Matrix Composites under Simulated Free Space Conditions. High Performance Polymers, 2004, 16, 163-175.	0.8	13
114	Curing of liquid epoxy resin in plasma discharge. European Polymer Journal, 2004, 40, 1915-1923.	2.6	13
115	Ion beam and laser processing for hydroxyapatite formation. Vacuum, 2004, 76, 339-342.	1.6	12
116	Ion beam patterning of solid surfaces for hydroxyapatite deposition. Vacuum, 2004, 76, 335-338.	1.6	1
117	Creation of biological module for self-regulating ecological system by the way of polymerization of composite materials in free space. Advances in Space Research, 2004, 34, 1585-1591.	1.2	9
118	HADES tracking system: first in-beam experience. IEEE Transactions on Nuclear Science, 2004, 51, 939-942.	1.2	2
119	Drug release from polyureaurethane coating modified by plasma immersion ion implantation. Journal of Biomaterials Science, Polymer Edition, 2004, 15, 145-159.	1.9	14
120	Enhancement of hydroxyapatite formation by laser-liquid-solid interaction. , 2004, , .		2
121	Ion-beam-modified surfaces as substrates for hydroxyapatite growth induced by laser-liquid-solid interaction. , 2004, , .		0
122	An influence of the viscosity of polymer substrate on ion beam synthesis of iron granular films. Nuclear Instruments & Methods in Physics Research B, 2003, 206, 1115-1119.	0.6	8
123	Adhesion of quinone adhesive to rubbers. Journal of Adhesion, 2002, 78, 431-441.	1.8	0
124	Fourier transform Raman and Fourier transform infrared spectra of cross-linked polyurethaneurea films synthesized from solutions. Journal of Raman Spectroscopy, 2002, 33, 769-777.	1.2	62
125	Pulse and continuous ion beam treatment of polyethylene. Vacuum, 2002, 68, 341-347.	1.6	17
126	Interphase Interaction in Adhesion Bonds of Rubbers with a Quinol-Type Curing Adhesive. International Polymer Science and Technology, 2001, 28, 18-22.	0.1	0

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127	Large-size space laboratory for biological orbit experiments. Advances in Space Research, 2001, 28, 665-671.	1.2	11
128	Plasma immersion ion implantation of polyethylene. Vacuum, 2001, 64, 105-111.	1.6	40
129	POLYMERIZATION PROCESSES OF EPOXY PLASTIC IN SIMULATED FREE SPACE CONDITIONS. Acta Astronautica, 2001, 48, 109-113.	1.7	15
130	Polymerization in microgravity as a new process in space technology. Acta Astronautica, 2001, 48, 169-180.	1.7	22
131	Adhesion of Polytetrafluorethylene modified by an ion beam. Vacuum, 1999, 52, 285-289.	1.6	52
132	Intermolecular vibrations of water molecules in the crystalline hydrates of MCl2Â·2H2O (M=Cu, Fe,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.2	2
133	Structure of polyethylene after pulse ion beam treatment. Journal of Applied Polymer Science, 1998, 69, 1071-1077.	1.3	44
134	Study of the Reaction of Epoxides withCarboxylic Acids by IR and Raman Spectrometry. Journal of Raman Spectroscopy, 1996, 27, 413-418.	1.2	11
135	Adhesion of UV-treated rubbers to epoxy adhesives. Journal of Applied Polymer Science, 1996, 62, 1-8.	1.3	11
136	Ion beam modification of polyethylene and adhesion to epoxy adhesive. Vacuum, 1996, 47, 1085-1087.	1.6	26
137	Vibrational spectra of some diisocyanates in the liquid state or on EPDM-40 rubber surface. Journal of Applied Polymer Science, 1994, 54, 1385-1393.	1.3	4
138	Interrupted plasma treatment of EPDM-40 rubber. Journal of Applied Polymer Science, 1993, 48, 1417-1423.	1.3	11
139	Inter- and intramolecular force constants of some trihalides of the fifth group in the gas, liquid and solid. Journal of Raman Spectroscopy, 1993, 24, 825-831.	1.2	4
140	Study of the nature of interaction of EPDM-40 rubber with an epoxy adhesive. Journal of Adhesion Science and Technology, 1992, 6, 1137-1145.	1.4	11
141	Study of molecular dynamics of antimony trichloride in some complexes with aromatic hydrocarbons. Journal of Molecular Structure, 1992, 267, 247-254.	1.8	1
142	Influence of the non-diagonal part of the potential energy matrix in the SbC13 molecule on the results of calculating the force constants of intermolecular interaction. Journal of Raman Spectroscopy, 1992, 23, 589-593.	1.2	0
143	Fragment method for the study of hydrogen bonding in polymers. Vibrational Spectroscopy, 1991, 2, 183-186.	1.2	1
144	Molecular dynamics of antimony trichloride in crystals of bimolecular menshutkin complexes with benzene, diphenyl and phenanthrene by Raman spectroscopy. Journal of Raman Spectroscopy, 1991, 22, 249-252.	1.2	7