

Maria A Surmeneva

List of Publications by Year in descending order

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78
papers

3,065
citations

147801

31
h-index

168389

53
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81
all docs

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docs citations

81
times ranked

3781
citing authors

#	ARTICLE	IF	CITATIONS
1	Core-Shell Magnetoactive PHB/Gelatin/Magnetite Composite Electrospun Scaffolds for Biomedical Applications. <i>Polymers</i> , 2022, 14, 529.	4.5	22
2	The effect of different sizes of cross-linked fibers of biodegradable electrospun poly(ϵ -caprolactone) scaffolds on osteogenic behavior in a rat model in vivo. <i>Journal of Applied Polymer Science</i> , 2022, 139, .	2.6	8
3	Magnetoactive electrospun hybrid scaffolds based on poly(vinylidene fluoride-co-trifluoroethylene) and magnetite particles with varied sizes. <i>Polymer Engineering and Science</i> , 2022, 62, 1593-1607.	3.1	7
4	Heparin Enriched-WPI Coating on Ti6Al4V Increases Hydrophilicity and Improves Proliferation and Differentiation of Human Bone Marrow Stromal Cells. <i>International Journal of Molecular Sciences</i> , 2022, 23, 139.	4.1	9
5	Emerging Trends for ZnO Nanoparticles and Their Applications in Food Packaging. <i>ACS Food Science & Technology</i> , 2022, 2, 763-781.	2.7	34
6	RF-magnetron sputter deposited hydroxyapatite-based composite & multilayer coatings: A systematic review from mechanical, corrosion, and biological points of view. <i>Ceramics International</i> , 2021, 47, 3031-3053.	4.8	60
7	A review on piezo- and pyroelectric responses of flexible nano- and micropatterned polymer surfaces for biomedical sensing and energy harvesting applications. <i>Nano Energy</i> , 2021, 79, 105442.	16.0	140
8	Electrodeposited Hydroxyapatite-Based Biocoatings: Recent Progress and Future Challenges. <i>Coatings</i> , 2021, 11, 110.	2.6	74
9	Piezoelectric hybrid scaffolds mineralized with calcium carbonate for tissue engineering: Analysis of local enzyme and small-molecule drug delivery, cell response and antibacterial performance. <i>Materials Science and Engineering C</i> , 2021, 122, 111909.	7.3	22
10	Physical principles of radio-frequency magnetron sputter deposition of calcium-phosphate-based coating with tailored properties. <i>Surface and Coatings Technology</i> , 2021, 413, 127098.	4.8	16
11	Review of Hybrid Materials Based on Polyhydroxyalkanoates for Tissue Engineering Applications. <i>Polymers</i> , 2021, 13, 1738.	4.5	44
12	X-ray Computed Tomography Procedures to Quantitatively Characterize the Morphological Features of Triply Periodic Minimal Surface Structures. <i>Materials</i> , 2021, 14, 3002.	2.9	17
13	New Ti-35Nb-7Zr-5Ta Alloy Manufacturing by Electron Beam Melting for Medical Application Followed by High Current Pulsed Electron Beam Treatment. <i>Metals</i> , 2021, 11, 1066.	2.3	15
14	Different Approaches for Manufacturing Ti-6Al-4V Alloy with Triply Periodic Minimal Surface Sheet-Based Structures by Electron Beam Melting. <i>Materials</i> , 2021, 14, 4912.	2.9	26
15	Osteogenic Capability of Vaterite-Coated Nonwoven Polycaprolactone Scaffolds for In Vivo Bone Tissue Regeneration. <i>Macromolecular Bioscience</i> , 2021, 21, e2100266.	4.1	21
16	Development of Optimized Strategies for Growth Factor Incorporation onto Electrospun Fibrous Scaffolds To Promote Prolonged Release. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 5578-5592.	8.0	33
17	Effect of van der Waals interactions on the adhesion strength at the interface of the hydroxyapatite-titanium biocomposite: a first-principles study. <i>RSC Advances</i> , 2020, 10, 37800-37805.	3.6	3
18	GPU-accelerated ray-casting for 3D fiber orientation analysis. <i>PLoS ONE</i> , 2020, 15, e0236420.	2.5	3

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19	Phenolic-Enriched Collagen Fibrillar Coatings on Titanium Alloy to Promote Osteogenic Differentiation and Reduce Inflammation. <i>International Journal of Molecular Sciences</i> , 2020, 21, 6406.	4.1	16
20	Comprehensive Characterization of Titania Nanotubes Fabricated on Ti–Nb Alloys: Surface Topography, Structure, Physicomechanical Behavior, and a Cell Culture Assay. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 1487-1499.	5.2	35
21	Bacteriostatic Effect of Piezoelectric Poly-3-Hydroxybutyrate and Polyvinylidene Fluoride Polymer Films under Ultrasound Treatment. <i>Polymers</i> , 2020, 12, 240.	4.5	22
22	Novel multicomponent organic–inorganic WPI/gelatin/CaP hydrogel composites for bone tissue engineering. <i>Journal of Biomedical Materials Research - Part A</i> , 2019, 107, 2479-2491.	4.0	29
23	Piezoelectric Response in Hybrid Micropillar Arrays of Poly(Vinylidene Fluoride) and Reduced Graphene Oxide. <i>Polymers</i> , 2019, 11, 1065.	4.5	28
24	Quanfima: An open source Python package for automated fiber analysis of biomaterials. <i>PLoS ONE</i> , 2019, 14, e0215137.	2.5	14
25	Piezoelectric 3-D Fibrous Poly(3-hydroxybutyrate)-Based Scaffolds Ultrasound-Mineralized with Calcium Carbonate for Bone Tissue Engineering: Inorganic Phase Formation, Osteoblast Cell Adhesion, and Proliferation. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 19522-19533.	8.0	88
26	A critical review of decades of research on calcium phosphate–based coatings: How far are we from their widespread clinical application?. <i>Current Opinion in Biomedical Engineering</i> , 2019, 10, 35-44.	3.4	55
27	The effect of hybrid coatings based on hydrogel, biopolymer and inorganic components on the corrosion behavior of titanium bone implants. <i>Journal of Materials Chemistry B</i> , 2019, 7, 6778-6788.	5.8	16
28	Bone marrow derived mesenchymal stem cell response to the RF magnetron sputter deposited hydroxyapatite coating on AZ91 magnesium alloy. <i>Materials Chemistry and Physics</i> , 2019, 221, 89-98.	4.0	44
29	Effects of silicon doping on strengthening adhesion at the interface of the hydroxyapatite–titanium biocomposite: A first-principles study. <i>Computational Materials Science</i> , 2019, 159, 228-234.	3.0	14
30	Adhesion, proliferation, and osteogenic differentiation of human mesenchymal stem cells on additively manufactured Ti6Al4V alloy scaffolds modified with calcium phosphate nanoparticles. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 176, 130-139.	5.0	37
31	Functionalization of titania nanotubes with electrophoretically deposited silver and calcium phosphate nanoparticles: Structure, composition and antibacterial assay. <i>Materials Science and Engineering C</i> , 2019, 97, 420-430.	7.3	48
32	Novel injectable gellan gum hydrogel composites incorporating Zn- and Sr-enriched bioactive glass microparticles: High-resolution X-ray microcomputed tomography, antibacterial and in vitro testing. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2018, 12, 1313-1326.	2.7	31
33	Novel self-gelling injectable hydrogel/alpha–tricalcium phosphate composites for bone regeneration: Physiochemical and microcomputer tomographical characterization. <i>Journal of Biomedical Materials Research - Part A</i> , 2018, 106, 822-828.	4.0	36
34	Effect of low-temperature plasma treatment of electrospun polycaprolactone fibrous scaffolds on calcium carbonate mineralisation. <i>RSC Advances</i> , 2018, 8, 39106-39114.	3.6	35
35	Multifunctional Scaffolds with Improved Antimicrobial Properties and Osteogenicity Based on Piezoelectric Electrospun Fibers Decorated with Bioactive Composite Microcapsules. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 34849-34868.	8.0	79
36	3D biodegradable scaffolds of polycaprolactone with silicate-containing hydroxyapatite microparticles for bone tissue engineering: high-resolution tomography and in vitro study. <i>Scientific Reports</i> , 2018, 8, 8907.	3.3	88

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37	Tribological behaviour of RF-magnetron sputter deposited hydroxyapatite coatings in physiological solution. <i>Ceramics International</i> , 2017, 43, 6858-6867.	4.8	29
38	A biodegradable AZ91 magnesium alloy coated with a thin nanostructured hydroxyapatite for improving the corrosion resistance. <i>Materials Science and Engineering C</i> , 2017, 75, 95-103.	7.3	61
39	RF magnetron sputtering of a hydroxyapatite target: A comparison study on polytetrafluorethylene and titanium substrates. <i>Applied Surface Science</i> , 2017, 414, 335-344.	6.1	49
40	Incorporation of silver nanoparticles into magnetron-sputtered calcium phosphate layers on titanium as an antibacterial coating. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 156, 104-113.	5.0	61
41	A comparison study between electrospun polycaprolactone and piezoelectric poly(3-hydroxybutyrate-co-3-hydroxyvalerate) scaffolds for bone tissue engineering. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 160, 48-59.	5.0	103
42	Hybrid biocomposites based on titania nanotubes and a hydroxyapatite coating deposited by RF-magnetron sputtering: Surface topography, structure, and mechanical properties. <i>Applied Surface Science</i> , 2017, 426, 229-237.	6.1	51
43	Structural evolution and growth mechanisms of RF-magnetron sputter-deposited hydroxyapatite thin films on the basis of unified principles. <i>Applied Surface Science</i> , 2017, 425, 497-506.	6.1	23
44	Density Functional Theory Study of Interface Interactions in Hydroxyapatite/Rutile Composites for Biomedical Applications. <i>Journal of Physical Chemistry C</i> , 2017, 121, 15687-15695.	3.1	16
45	Deposition of Ultrathin Nano-Hydroxyapatite Films on Laser Micro-Textured Titanium Surfaces to Prepare a Multiscale Surface Topography for Improved Surface Wettability/Energy. <i>Materials</i> , 2016, 9, 862.	2.9	29
46	High-resolution synchrotron X-ray analysis of bioglass-enriched hydrogels. <i>Journal of Biomedical Materials Research - Part A</i> , 2016, 104, 1194-1201.	4.0	17
47	Adhesion properties of a three-layer system based on RF-magnetron sputter deposited calcium-phosphate coating and silver nanoparticles. , 2016, , .		1
48	Nanoindentation of a hard ceramic coating formed on a soft substrate. <i>Technical Physics</i> , 2016, 61, 1370-1376.	0.7	3
49	Study on a hydrophobic Ti-doped hydroxyapatite coating for corrosion protection of a titanium based alloy. <i>RSC Advances</i> , 2016, 6, 87665-87674.	3.6	30
50	Bioceramic Coatings for Metallic Implants. , 2016, , 703-733.		10
51	Effect of Electron Beam Treatment in Air on Surface Properties of Ultra-High-Molecular-Weight Polyethylene. <i>Journal of Medical and Biological Engineering</i> , 2016, 36, 440-448.	1.8	9
52	Surface wettability and energy effects on the biological performance of poly-3-hydroxybutyrate films treated with RF plasma. <i>Materials Science and Engineering C</i> , 2016, 62, 450-457.	7.3	33
53	Combined effect of pulse electron beam treatment and thin hydroxyapatite film on mechanical features of biodegradable AZ31 magnesium alloy. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 98, 012030.	0.6	2
54	Thin hydroxyapatite coating on AZ91D magnesium alloy fabricated via RF-magnetron sputtering. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 98, 012027.	0.6	1

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55	Correlation between surface properties and wettability of multi-scale structured biocompatible surfaces. IOP Conference Series: Materials Science and Engineering, 2015, 98, 012026.	0.6	1
56	Testing the in vitro performance of hydroxyapatite coated magnesium (AZ91D) and titanium concerning cell adhesion and osteogenic differentiation. BioNanoMaterials, 2015, 16, .	1.4	5
57	Enhancement of the mechanical properties of AZ31 magnesium alloy via nanostructured hydroxyapatite thin films fabricated via radio-frequency magnetron sputtering. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 46, 127-136.	3.1	59
58	The effect of patterned titanium substrates on the properties of silver-doped hydroxyapatite coatings. Surface and Coatings Technology, 2015, 276, 595-601.	4.8	35
59	Nano-hydroxyapatite-coated metal-ceramic composite of iron-tricalcium phosphate: Improving the surface wettability, adhesion and proliferation of mesenchymal stem cells in vitro. Colloids and Surfaces B: Biointerfaces, 2015, 135, 386-393.	5.0	41
60	Ultrathin film coating of hydroxyapatite (HA) on a magnesium-calcium alloy using RF magnetron sputtering for bioimplant applications. Materials Letters, 2015, 152, 280-282.	2.6	59
61	Bioceramic Coatings for Metallic Implants. , 2015, , 1-31.		2
62	Investigation of the morphology and elemental composition of the silicon-containing calcium phosphate coating treated by intensive pulsed electron beam. , 2014, , .		0
63	Antibacterial AgNPs/CaP biocomposites. , 2014, , .		0
64	Physical-Mechanical Characteristics of RF Magnetron Sputter-Deposited Coatings Based on Silver-Doped Hydroxyapatite. Russian Physics Journal, 2014, 56, 1198-1205.	0.4	17
65	Wettability of Thin Silicate-Containing Hydroxyapatite Films Formed by RF-Magnetron Sputtering. Russian Physics Journal, 2014, 56, 1163-1169.	0.4	6
66	Significance of calcium phosphate coatings for the enhancement of new bone osteogenesis – A review. Acta Biomaterialia, 2014, 10, 557-579.	8.3	597
67	Fabrication, ultra-structure characterization and in vitro studies of RF magnetron sputter deposited nano-hydroxyapatite thin films for biomedical applications. Applied Surface Science, 2014, 317, 172-180.	6.1	69
68	Phase and elemental composition of silicon-containing hydroxyapatite-based coatings fabricated by RF-magnetron sputtering for medical implants. Inorganic Materials: Applied Research, 2013, 4, 227-235.	0.5	15
69	Adhesion properties of a silicon-containing calcium phosphate coating deposited by RF magnetron sputtering on a heated substrate. Journal of Surface Investigation, 2013, 7, 944-951.	0.5	16
70	Preparation of a silicate-containing hydroxyapatite-based coating by magnetron sputtering: structure and osteoblast-like MG63 cells in vitro study. RSC Advances, 2013, 3, 11240.	3.6	48
71	Influence of the substrate bias on the stoichiometry and structure of RF-magnetron sputter-deposited silver-containing calcium phosphate coatings. Materialwissenschaft Und Werkstofftechnik, 2013, 44, 218-225.	0.9	42
72	The structure of an RF-magnetron sputter-deposited silicate-containing hydroxyapatite-based coating investigated by high-resolution techniques. Surface and Coatings Technology, 2013, 218, 39-46.	4.8	83

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73	Cellular and molecular aspects of immunologic compatibility of implants with nanostructured calcium phosphate coating. Bulletin of Siberian Medicine, 2012, 11, 78-85.	0.3	6
74	Study of physicochemical and biological properties of calcium phosphate coatings prepared by RF magnetron sputtering of silicon-substituted hydroxyapatite. Journal of Surface Investigation, 2011, 5, 863-869.	0.5	26
75	In-vitro investigation of magnetron-sputtered coatings based on silicon-substituted hydroxyapatite. Journal of Surface Investigation, 2011, 5, 1202-1207.	0.5	26
76	The influence of the deposition parameters on the properties of an rf-magnetron-deposited nanostructured calcium phosphate coating and a possible growth mechanism. Surface and Coatings Technology, 2011, 205, 3600-3606.	4.8	94
77	<i>In Vitro</i> Assessment of Hydroxyapatite Coating on the Surface of Additive Manufactured Ti6Al4V Scaffolds. Materials Science Forum, 0, 879, 2444-2449.	0.3	3
78	Radio Frequency Magnetron Sputter Deposition as a Tool for Surface Modification of Medical Implants. , 0, , .		11