Guojiang Wan

List of Publications by Year
in descending order

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75 papers	2,231 citations	257450 24 h-index	243625 44 g-index
75 all docs	75 docs citations	75 times ranked	2569 citing authors

#	Article	IF	Citations
1	A surface-eroding poly(1,3-trimethylene carbonate) coating for fully biodegradable magnesium-based stent applications: Toward better biofunction, biodegradation and biocompatibility. Acta Biomaterialia, 2013, 9, 8678-8689.	8.3	134
2	Blood compatibility and sp3/sp2 contents of diamond-like carbon (DLC) synthesized by plasma immersion ion implantation-deposition. Surface and Coatings Technology, 2002, 156, 289-294.	4.8	121
3	Comparative corrosion behavior of Zn with Fe and Mg in the course of immersion degradation in phosphate buffered saline. Corrosion Science, 2016, 111, 541-555.	6.6	110
4	Surface characterization and blood compatibility of poly(ethylene terephthalate) modified by plasma surface grafting. Surface and Coatings Technology, 2005, 196, 307-311.	4.8	107
5	Surface modification of biomaterials by plasma immersion ion implantation. Surface and Coatings Technology, 2004, 186, 218-226.	4.8	106
6	Corrosion-Controlling and Osteo-Compatible Mg Ion-Integrated Phytic Acid (Mg-PA) Coating on Magnesium Substrate for Biodegradable Implants Application. ACS Applied Materials & Interfaces, 2014, 6, 19531-19543.	8.0	106
7	Sandwiched polydopamine (PDA) layer for titanium dioxide (TiO2) coating on magnesium to enhance corrosion protection. Corrosion Science, 2015, 96, 67-73.	6.6	91
8	Flow-induced corrosion of absorbable magnesium alloy: In-situ and real-time electrochemical study. Corrosion Science, 2016, 104, 277-289.	6.6	79
9	Covalent immobilization of phytic acid on Mg by alkaline pre-treatment: Corrosion and degradation behavior in phosphate buffered saline. Corrosion Science, 2013, 75, 280-286.	6.6	73
10	Investigation of zincâ€'copper alloys as potential materials for craniomaxillofacial osteosynthesis implants. Materials Science and Engineering C, 2019, 103, 109826.	7.3	70
11	Mechanical properties and platelet adhesion behavior of diamond-like carbon films synthesized by pulsed vacuum arc plasma deposition. Surface Science, 2003, 531, 177-184.	1.9	65
12	Strengthened corrosion control of poly (lactic acid) (PLA) and poly (Îµ-caprolactone) (PCL) polymer-coated magnesium by imbedded hydrophobic stearic acid (SA) thin layer. Corrosion Science, 2016, 112, 327-337.	6.6	59
13	The influence of polyethylene terephthalate surfaces modified by silver ion implantation on bacterial adhesion behavior. Surface and Coatings Technology, 2007, 201, 8155-8159.	4.8	50
14	Epigallocatechin gallate (EGCG) induced chemical conversion coatings for corrosion protection of biomedical MgZnMn alloys. Corrosion Science, 2015, 94, 305-315.	6.6	49
15	Characteristics and surface energy of silicon-doped diamond-like carbon films fabricated by plasma immersion ion implantation and deposition. Diamond and Related Materials, 2006, 15, 1276-1281.	3.9	46
16	Anticoagulant surface modification of titanium via layerâ€byâ€layer assembly of collagen and sulfated chitosan multilayers. Journal of Biomedical Materials Research - Part A, 2009, 89A, 575-584.	4.0	44
17	Structure and properties of biomedical TiO2 films synthesized by dual plasma deposition. Surface and Coatings Technology, 2002, 156, 295-300.	4.8	42
18	Behavior of cultured human umbilical vein endothelial cells on titanium oxide films fabricated by plasma immersion ion implantation and deposition. Surface and Coatings Technology, 2004, 186, 270-276.	4.8	39

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19	Corrosion properties of oxygen plasma immersion ion implantation treated magnesium. Surface and Coatings Technology, 2007, 201, 8267-8272.	4.8	39
20	Appropriately adapted properties of hot-extruded Znâ€“0.5Cuâ€“xFe alloys aimed for biodegradable guided bone regeneration membrane application. Bioactive Materials, 2021, 6, 975-989.	15.6	37
21	TiN and Tiâ€“O/TiN films fabricated by PIII-D for enhancement of corrosion and wear resistance of Tiâ€“6Alâ€“4V. Surface and Coatings Technology, 2004, 186, 136-140.	4.8	31
22	Zirconium ions integrated in 1-hydroxyethylidene-1,1-diphosphonic acid (HEDP) as a metalorganic-like complex coating on biodegradable magnesium for corrosion control. Corrosion Science, 2018, 144, 277-287.	6.6	29
23	Controlling the corrosion rate and behavior of biodegradable magnesium by a surface-immobilized ultrathin 1-hydroxyethylidene-1,1-diphosphonic acid (HEDP) film. RSC Advances, 2016, 6, 15247-15259.	3.6	28
24	Electrochemical Performance of Freeâ€Standing and Flexible Graphene and TiO₂ Composites with Different Conductive Polymers as Electrodes for Supercapacitors. Chemistry - A European Journal, 2019, 25, 7903-7911.	3.3	26
25	Polydopamine (PDA) mediated nanogranular-structured titanium dioxide (TiO2) coating on polyetheretherketone (PEEK) for oral and maxillofacial implants application. Surface and Coatings Technology, 2020, 401, 126282.	4.8	26
26	Properties of titanium oxide synthesized by pulsed metal vacuum arc deposition. Surface and Coatings Technology, 2004, 176, 141-147.	4.8	25
27	Freestanding RGOâ€”Co₃O₄â€”PPy Composite Films as Electrodes for Supercapacitors. Energy Technology, 2019, 7, 1800606.	3.8	25
28	Phytic acid layer template-assisted deposition of TiO2 film on titanium: Surface electronic properties, super-hydrophilicity and bending strength. Materials and Design, 2016, 89, 476-484.	7.0	24
29	In situ incorporation of heparin/bivalirudin into a phytic acid coating on biodegradable magnesium with improved anticorrosion and biocompatible properties. Journal of Materials Chemistry B, 2017, 5, 4162-4176.	5.8	24
30	Bio-derived three-dimensional hierarchical carbon-graphene-TiO2 as electrode for supercapacitors. Scientific Reports, 2018, 8, 4412.	3.3	24
31	Corrosion and degradation decelerating alendronate embedded zinc phosphate hybrid coating on biodegradable Zn biomaterials. Corrosion Science, 2021, 184, 109398.	6.6	24
32	Improved biodegradability of zinc and its alloys by sandblasting treatment. Surface and Coatings Technology, 2021, 405, 126678.	4.8	23
33	Hydroxyquinoline/nano-graphene oxide composite coating of self-healing functionality on treated Mg alloys AZ31. Surface and Coatings Technology, 2020, 385, 125395.	4.8	20
34	Fabrication and surface characterization of pulsed reactive closed-field unbalanced magnetron sputtered amorphous silicon nitride films. Surface and Coatings Technology, 2006, 200, 4144-4151.	4.8	19
35	Corrosion susceptibility investigation of Tiâ€“O film modified cobalt-chromium alloy (L-605) vascular stents by cyclic potentiodynamic polarization measurement. Surface and Coatings Technology, 2011, 206, 893-896.	4.8	19
36	Deformation and corrosion behaviors of Tiâ€“O film deposited 316L stainless steel by plasma immersion ion implantation and deposition. Surface and Coatings Technology, 2013, 214, 117-123.	4.8	19

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37	Hybrid scaffolds of Mg alloy mesh reinforced polymer/extracellular matrix composite for critical-sized calvarial defect reconstruction. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, 1374-1388.	2.7	18
38	Mechanical properties and thermomechanical stability of diamond-like carbon films synthesized by pulsed vacuum arc plasma deposition. Surface and Coatings Technology, 2003, 173, 67-73.	4.8	17
39	Comparative properties of titanium oxide biomaterials grown by pulsed vacuum arc plasma deposition and by unbalanced magnetron sputtering. Surface and Coatings Technology, 2006, 201, 157-163.	4.8	17
40	The microstructure and mechanical properties of TiN and TiO2/TiN duplex films synthesized by plasma immersion ion implantation and deposition on artificial heart valve. Surface and Coatings Technology, 2006, 201, 1012-1016.	4.8	17
41	Platelet activation behavior on nitrogen plasma-implanted silicon. Materials Science and Engineering C, 2007, 27, 928-932.	7.3	17
42	Ultraviolet irradiation assisted liquid phase deposited titanium dioxide (TiO2)-incorporated into phytic acid coating on magnesium for slowing-down biodegradation and improving osteo-compatibility. Materials Science and Engineering C, 2020, 108, 110487.	7.3	17
43	Deformation behavior of titanium nitride film prepared by plasma immersion ion implantation and deposition. Surface and Coatings Technology, 2002, 156, 170-175.	4.8	16
44	In vitro investigation of hemocompatibility of hydrophilic SiNx:H films fabricated by plasma-enhanced chemical vapor deposition. Surface and Coatings Technology, 2005, 200, 1945-1949.	4.8	16
45	A dualâ€task design of corrosionâ€controlling and osteoâ€compatible hexamethylenediaminetetrakisâ€• (methylene phosphonic acid) (HDTMPA) coating on magnesium for biodegradable bone implants application. Journal of Biomedical Materials Research - Part A, 2015, 103, 1640-1652.	4.0	16
46	Osteogenic and angiogenic bioactive collagen entrapped calcium/zinc phosphates coating on biodegradable Zn for orthopedic implant applications. , 2022, 136, 212792.		15
47	Effect of Ar plasma etching of Tiâ€“O film surfaces on biological behavior of endothelial cell. Surface and Coatings Technology, 2007, 201, 6901-6905.	4.8	14
48	Anodic dissolution dictates the negative difference effect (NDE) of magnesium corrosion more in chemical pathway. Materials Letters, 2018, 232, 54-57.	2.6	14
49	Wettability and bloodcompatibility of a-C:N:H films deposited by PIII-D. Surface and Coatings Technology, 2010, 204, 3039-3042.	4.8	13
50	Inhibition of adherent platelet activation produced by Tiâ€“O thin film fabricated by PIII. Surface and Coatings Technology, 2004, 186, 265-269.	4.8	12
51	Free-standing microporous paper-like graphene films with electrodeposited PPy coatings as electrodes for supercapacitors. Journal of Materials Science: Materials in Electronics, 2015, 26, 747-754.	2.2	12
52	Mg ions incorporated phytic acid (PA) and zoledronic acid (ZA) of metal-organic complex coating on biodegradable magnesium for orthopedic implants application. Surface and Coatings Technology, 2021, 413, 127075.	4.8	12
53	Ti-O/TiN films synthesized by plasma immersion ion implantation and deposition on 316L: Study of deformation behavior and mechanical properties. Thin Solid Films, 2005, 484, 219-224.	1.8	10
54	Theoretical calculation and experimental study of influence of oxygen vacancy on the electronic structure and hemocompatibility of rutile TiO2. Science in China Series D: Earth Sciences, 2009, 52, 2742-2748.	0.9	10

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55	Covalentlyâ€Attached, Surfaceâ€Eroding Polymer Coatings on Magnesium Alloys for Corrosion Control and Temporally Varying Support of Cell Adhesion. Advanced Materials Interfaces, 2020, 7, 2000356.	3.7	10
56	Biodegradable Zn-Cu-Fe Alloy as a Promising Material for Craniomaxillofacial Implants: An in vitro Investigation into Degradation Behavior, Cytotoxicity, and Hemocompatibility. Frontiers in Chemistry, 0, 10, .	3.6	10
57	Siâ€“Nâ€“O Films Synthesized by Plasma Immersion Ion Implantation and Deposition (PIII&D) for Blood-Contacting Biomedical Applications. IEEE Transactions on Plasma Science, 2006, 34, 1160-1165.	1.3	9
58	Characterization and mechanical investigation of Tiâ€“O2â^'x film prepared by plasma immersion ion implantation and deposition for cardiovascular stents surface modification. Nuclear Instruments & Methods in Physics Research B, 2012, 289, 91-96.	1.4	9
59	Carbon-Doped Titanium Oxide Films by DC Reactive Magnetron Sputtering Using CO2 and O2 as Reactive Gas. Acta Metallurgica Sinica (English Letters), 2014, 27, 239-244.	2.9	9
60	Micro/Nanoâ€Structured Metalâ€“Organic/Inorganic Hybrid Coatings on Biodegradable Zn for Osteogenic and Biocompatible Improvement. Advanced Materials Interfaces, 2022, 9, .	3.7	9
61	Effect of hydrogen on the behavior of cultured human umbilical vein endothelial cells (HUVEC) on titanium oxide films fabricated by plasma immersion ion implantation and deposition. Surface and Coatings Technology, 2007, 201, 8140-8145.	4.8	7
62	Impact of sterilization treatments on biodegradability and cytocompatibility of zinc-based implant materials. Materials Science and Engineering C, 2021, 130, 112430.	7.3	7
63	Functional inorganic films fabricated by PIII(-D) for surface modification of blood contacting biomaterials: Fabrication parameters, characteristics and antithrombotic properties. Surface and Coatings Technology, 2007, 201, 6828-6832.	4.8	6
64	Dynamic curvature control of rolled-up metal nanomembranes activated by magnesium. Journal of Materials Chemistry, 2012, 22, 12983.	6.7	6
65	Chandler-Loop surveyed blood compatibility and dynamic blood triggered degradation behavior of Zn-4Cu alloy and Zn. Materials Science and Engineering C, 2021, 119, 111594.	7.3	6
66	Direct correlation of electrochemical behaviors with anti-thrombogenicity of semiconducting titanium oxide films. Journal of Biomaterials Applications, 2014, 28, 719-728.	2.4	5
67	Deposition of anti-corrosion hybrid film of hexamethylene diaminetetrakis (methylene phosphonic) Tj ETQq1 1 0.784314 rgBT /Overlo Technology, 2020, 402, 126242.	4.8	5
68	Antithrombogenic investigation and biological behavior of cultured human umbilical vein endothelial cells on Ti-O film. Science in China Series D: Earth Sciences, 2006, 49, 20-28.	0.9	4
69	Influence of Surface Roughness on Biodegradability and Cytocompatibility of High-Purity Magnesium. Materials, 2022, 15, 3991.	2.9	4
70	Electrochemical behaviors of TiO2â^'x films synthesized by plasma-based ion implantation and deposition in fibrinogen containing PBS solution. Surface and Coatings Technology, 2007, 201, 6889-6892.	4.8	3
71	Biomedical Applications of Plasma and Ion Beam Processing. Journal of the Vacuum Society of Japan, 2008, 51, 81-92.	0.3	3
72	Responsive surface charge transfer doping effect of reductive bio-molecules (glucose, fucoidan, and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 4109-4116.	3.7	2

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73	Heat treatment of Hexa-Methylene Diamine Tetra-Methylene Phosphonic Acid (HMDTMPA) coating on biodegradable Mg to improve corrosion resistance and bioactivity. Surface Engineering, 2021, 37, 1032-1042.	2.2	1
74	Finite Element Analysis of a Mechanical Heart Valve in Assembly. Advanced Materials Research, 2012, 569, 487-490.	0.3	0
75	The Design of the Mechanical Heart Valve by Using the Parametric Method. Advanced Materials Research, 0, 683, 657-660.	0.3	0