

Prashant N Kumta

List of Publications by Year in Descending Order

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Version: 2024-04-28

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

162
papers

7,995
citations

44
h-index

86
g-index

165
ext. papers

9,053
ext. citations

6.7
avg, IF

6.4
L-index

#	Paper	IF	Citations
162	In vivo osteogenesis of plasma sprayed ternary-ion doped hydroxyapatite coatings on Ti6Al4V for orthopaedic applications. <i>Ceramics International</i> , 2022 ,	5.1	1
161	Recent advances in silicon materials for Li-ion batteries: Novel processing, alternative raw materials, and practical considerations 2022 , 47-92		
160	Batteries for aeronautics and space exploration: Recent developments and future prospects 2022 , 531-595		0
159	New approaches to high-energy-density cathode and anode architectures for lithium-sulfur batteries 2022 , 353-439		
158	Molybdenum doped bilayer photoanode nanotubes for enhanced photoelectrochemical water splitting. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	1
157	Highly Efficient Fluorine Doped Ni ₂ P Electrocatalysts for Alkaline Mediated Oxygen Evolution Reaction. <i>Journal of the Electrochemical Society</i> , 2021 , 168, 064512	3.9	2
156	Computational and experimental investigation of Co and S-doped Ni ₂ P as an efficient electrocatalyst for acid mediated proton exchange membrane hydrogen evolution reaction. <i>Catalysis Science and Technology</i> , 2021 , 11, 861-873	5.5	6
155	Synthesis of Oxide and Non-Oxide Advanced Ceramics 2021 , 2-26		
154	Effect of cerium-based conversion coating on corrosion behavior of squeeze cast Mg-4wt% Y alloy in 0.1M NaCl solution. <i>Surface and Coatings Technology</i> , 2021 , 421, 127451	4.4	9
153	Subglottic Stenosis: Development of a Clinically Relevant Endoscopic Animal Model. <i>Otolaryngology - Head and Neck Surgery</i> , 2020 , 162, 905-913	5.5	1
152	In vivo performance analysis of silanized and coated nitinol wires in biological environment. <i>Journal of Materials Research</i> , 2020 , 35, 1262-1270	2.5	3
151	Constitutional under-potential plating (CUP) [New insights for predicting the morphological stability of deposited lithium anodes in lithium metal batteries. <i>Journal of Power Sources</i> , 2020 , 467, 228243	8.9	6
150	Effect of Lithium and Aluminum on the Mechanical Properties, and Degradation, and Toxicity of Multiphase Ultrahigh Ductility Mg-Li-Al-Zn Quaternary Alloys for Vascular Stent Application. <i>ACS Biomaterials Science and Engineering</i> , 2020 , 6, 1950-1964	5.5	6
149	Engineered peptide modified hydrogel platform for propagation of human pluripotent stem cells. <i>Acta Biomaterialia</i> , 2020 , 113, 228-239	10.8	7
148	Visual Hydrogen Mapping Sensor for Noninvasive Monitoring of Bioresorbable Magnesium Implants In Vivo. <i>Jom</i> , 2020 , 72, 1851-1858	2.1	5
147	Theoretical and Experimental Strategies for New Heterostructures with Improved Stability for Rechargeable Lithium Sulfur Batteries. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 040513	3.9	2
146	Influence of Defects on Activity-Stability of Cu _{1.5} Mn _{1.5} O ₄ for Acid-Mediated Oxygen Evolution Reaction. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 144511	3.9	4

145	Degradability and in vivo biocompatibility of doped magnesium phosphate bioceramic scaffolds. <i>Materials Letters</i> , 2020 , 259, 126892	3.3	3
144	Computational and Experimental Study of Fluorine Doped (Mn _{1-x} Nb _x)O ₂ Nanorod Electrocatalysts for Acid-Mediated Oxygen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2020 , 3, 541-557	6.1	19
143	A Novel Sulforaphane-Regulated Gene Network in Suppression of Breast Cancer-Induced Osteolytic Bone Resorption. <i>Molecular Cancer Therapeutics</i> , 2020 , 19, 420-431	6.1	6
142	Effects of cerium addition on the corrosion resistance and biocompatibility of Mg ₂ Sr ₁ Zr Alloy. <i>Journal of Materials Research</i> , 2020 , 35, 3124-3135	2.5	3
141	Recent Developments in Magnesium Metal-Matrix Composites for Biomedical Applications: A Review. <i>ACS Biomaterials Science and Engineering</i> , 2020 , 6, 4748-4773	5.5	21
140	In-vivo efficacy of biodegradable ultrahigh ductility Mg-Li-Zn alloy tracheal stents for pediatric airway obstruction. <i>Communications Biology</i> , 2020 , 3, 787	6.7	2
139	Anomalous in Vitro and in Vivo Degradation of Magnesium Phosphate Bioceramics: Role of Zinc Addition. <i>ACS Biomaterials Science and Engineering</i> , 2019 , 5, 5097-5106	5.5	8
138	Magnesium Silicate Bioceramics for Bone Regeneration: A Review. <i>Journal of the Indian Institute of Science</i> , 2019 , 99, 261-288	2.4	8
137	A feasibility study of biodegradable magnesium-aluminum-zinc-calcium-manganese (AZXM) alloys for tracheal stent application. <i>Journal of Biomaterials Applications</i> , 2019 , 33, 1080-1093	2.9	3
136	Sulfonic Acid Based Complex Framework Materials (CFM): Nanostructured Polysulfide Immobilization Systems for Rechargeable Lithium/Sulfur Battery. <i>Journal of the Electrochemical Society</i> , 2019 , 166, A1827-A1835	3.9	21
135	Effective Bipyridine and Pyrazine-Based Polysulfide Dissolution Resistant Complex Framework Material Systems for High Capacity Rechargeable Lithium/Sulfur Batteries. <i>Energy Technology</i> , 2019 , 7, 1900141	3.5	4
134	Synergistic Effects of Silicon/Zinc Doped Brushite and Silk Scaffolding in Augmenting the Osteogenic and Angiogenic Potential of Composite Biomimetic Bone Grafts. <i>ACS Biomaterials Science and Engineering</i> , 2019 , 5, 1462-1475	5.5	16
133	In vitro corrosion and cytocompatibility studies of hot press sintered magnesium-bioactive glass composite. <i>Materialia</i> , 2019 , 5, 100245	3.2	9
132	Corrosion and bone healing of Mg-Y-Zn-Zr-Ca alloy implants: Comparative in vivo study in a non-immobilized rat femoral fracture model. <i>Journal of Biomaterials Applications</i> , 2019 , 33, 1178-1194	2.9	7
131	Quantitative assessment of degradation, cytocompatibility, and in vivo bone regeneration of silicon-incorporated magnesium phosphate bioceramics. <i>Journal of Materials Research</i> , 2019 , 34, 4024-4036	2.5	3
130	Biodegradation and Biocompatibility of Forsterite Bio-Ceramics: Effects of Strontium Substitution. <i>ACS Biomaterials Science and Engineering</i> , 2019 , 5, 530-543	5.5	11
129	Experimental and Theoretical Validation of High Efficiency and Robust Electrocatalytic Response of One-Dimensional (1D) (Mn,Ir)O ₂ :10F Nanorods for the Oxygen Evolution Reaction in PEM-Based Water Electrolysis. <i>ACS Catalysis</i> , 2019 , 9, 2134-2157	13.1	57
128	Evaluation of magnesium alloys for use as an intraluminal tracheal for pediatric applications in a rat tracheal bypass model. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2019 , 107, 1844-1853	3.5	7

127	Mechanical and in vitro degradation behavior of magnesium-bioactive glass composites prepared by SPS for biomedical applications. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2019 , 107, 352-365	3.5	16
126	Platinum aptasensor wire arrays for cardiac biomarker detection. <i>Materials Today Communications</i> , 2018 , 15, 55-60	2.5	6
125	In Vitro and in Vivo Evaluation of Multiphase Ultrahigh Ductility Mg-Li-Zn Alloys for Cardiovascular Stent Application. <i>ACS Biomaterials Science and Engineering</i> , 2018 , 4, 919-932	5.5	15
124	Novel Composite Polymer Electrolytes of PVdF-HFP Derived by Electrospinning with Enhanced Li-Ion Conductivities for Rechargeable Lithium Sulfur Batteries. <i>ACS Applied Energy Materials</i> , 2018 , 1, 483-494	6.1	50
123	Development of an Alginate Array Platform to Decouple the Effect of Multiparametric Perturbations on Human Pluripotent Stem Cells During Pancreatic Differentiation. <i>Biotechnology Journal</i> , 2018 , 13, 1700099	5.6	3
122	First principles study of the elastic properties of magnesium and iron based bio-resorbable alloys. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2018 , 230, 20-23	3.1	8
121	In Vivo Biocompatibility of Zinc-Doped Magnesium Silicate Bio-Ceramics. <i>ACS Biomaterials Science and Engineering</i> , 2018 , 4, 2126-2133	5.5	13
120	Electrochemically active and robust cobalt doped copper phosphosulfide electro-catalysts for hydrogen evolution reaction in electrolytic and photoelectrochemical water splitting. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 7855-7871	6.7	31
119	Cross-linked enzyme aggregates of alginate lyase: A systematic engineered approach to controlled degradation of alginate hydrogel. <i>International Journal of Biological Macromolecules</i> , 2018 , 115, 176-184	7.9	19
118	Active and robust novel bilayer photoanode architectures for hydrogen generation via direct non-electric bias induced photo-electrochemical water splitting. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 13158-13176	6.7	18
117	Potential trade-offs between biomineralization and immunity revealed by shell properties and gene expression profiles of two closely related species. <i>Journal of Experimental Biology</i> , 2018 , 221,	3	8
116	First report of vertically aligned (Sn, Ir)O ₂ :F solid solution nanotubes: Highly efficient and robust oxygen evolution electrocatalysts for proton exchange membrane based water electrolysis. <i>Journal of Power Sources</i> , 2018 , 392, 139-149	8.9	24
115	Surface mediated non-viral gene transfection on titanium substrates using polymer electrolyte and nanostructured silicate substituted calcium phosphate pDNA (NanoSiCaPs) composites. <i>Materials Today Communications</i> , 2018 , 16, 169-173	2.5	3
114	3D heterogeneous islet organoid generation from human embryonic stem cells using a novel engineered hydrogel platform. <i>Biomaterials</i> , 2018 , 177, 27-39	15.6	76
113	Understanding the Origin of Irreversible Capacity loss in Non-Carbonized Carbonate Based Metal Organic Framework (MOF) Sulfur hosts for Lithium Sulfur battery. <i>Electrochimica Acta</i> , 2017 , 229, 208-218	6.7	44
112	In vivo characterization of magnesium alloy biodegradation using electrochemical H monitoring, ICP-MS, and XPS. <i>Acta Biomaterialia</i> , 2017 , 50, 556-565	10.8	34
111	Anticorrosive Self-Assembled Hybrid Alkylsilane Coatings for Resorbable Magnesium Metal Devices. <i>ACS Biomaterials Science and Engineering</i> , 2017 , 3, 518-529	5.5	10
110	Biomimetic Rotated Lamellar Plywood Motifs by Additive Manufacturing of Metal Alloy Scaffolds for Bone Tissue Engineering. <i>ACS Biomaterials Science and Engineering</i> , 2017 , 3, 648-657	5.5	15

109	Cobalt based nanostructured alloys: Versatile high performance robust hydrogen evolution reaction electro-catalysts for electrolytic and photo-electrochemical water splitting. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 17049-17062	6.7	23
108	Programmed Platelet-Derived Growth Factor-BB and Bone Morphogenetic Protein-2 Delivery from a Hybrid Calcium Phosphate/Alginate Scaffold. <i>Tissue Engineering - Part A</i> , 2017 , 23, 1382-1393	3.9	29
107	Silicon-Carbon Core-Shell Hollow Nanotubular Configuration High-Performance Lithium-Ion Anodes. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 9662-9671	3.8	26
106	Highly active robust oxide solid solution electro-catalysts for oxygen reduction reaction for proton exchange membrane fuel cell and direct methanol fuel cell cathodes. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 24079-24089	6.7	13
105	Water-soluble-template-derived nanoscale silicon nanoflake and nano-rod morphologies: Stable architectures for lithium-ion battery anodes. <i>Nano Research</i> , 2017 , 10, 4284-4297	10	6
104	A rapid solid-state synthesis of electrochemically active Chevrel phases (Mo ₆ T ₈ ; T = S, Se) for rechargeable magnesium batteries. <i>Nano Research</i> , 2017 , 10, 4415-4435	10	20
103	Effect of zinc oxide doping on in vitro degradation of magnesium silicate bioceramics. <i>Materials Letters</i> , 2017 , 207, 100-103	3.3	11
102	Fluorine substituted (Mn,Ir)O ₂ :F high performance solid solution oxygen evolution reaction electro-catalysts for PEM water electrolysis. <i>RSC Advances</i> , 2017 , 7, 17311-17324	3.7	36
101	Pulsed Current Electrodeposition of Silicon Thin Films Anodes for Lithium Ion Battery Applications. <i>Inorganics</i> , 2017 , 5, 27	2.9	9
100	Porous calcium phosphate-poly (lactic-co-glycolic) acid composite bone cement: A viable tunable drug delivery system. <i>Materials Science and Engineering C</i> , 2016 , 59, 92-101	8.3	32
99	Binder-jetting 3D printing and alloy development of new biodegradable Fe-Mn-Ca/Mg alloys. <i>Acta Biomaterialia</i> , 2016 , 45, 375-386	10.8	125
98	Noble metal-free bifunctional oxygen evolution and oxygen reduction acidic media electro-catalysts. <i>Scientific Reports</i> , 2016 , 6, 28367	4.9	77
97	Flexible sulfur wires (Flex-SWs) A new versatile platform for lithium-sulfur batteries. <i>Electrochimica Acta</i> , 2016 , 212, 286-293	6.7	12
96	Study of hMSC proliferation and differentiation on Mg and Mg-Sr containing biphasic tricalcium phosphate and amorphous calcium phosphate ceramics. <i>Materials Science and Engineering C</i> , 2016 , 64, 219-228	8.3	11
95	Capsule stiffness regulates the efficiency of pancreatic differentiation of human embryonic stem cells. <i>Acta Biomaterialia</i> , 2016 , 35, 153-65	10.8	38
94	Vertically aligned nitrogen doped (Sn,Nb)O ₂ nanotubes Robust photoanodes for hydrogen generation by photoelectrochemical water splitting. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2016 , 208, 1-14	3.1	25
93	Gold-coated carbon nanotube electrode arrays: Immunosensors for impedimetric detection of bone biomarkers. <i>Biosensors and Bioelectronics</i> , 2016 , 77, 580-8	11.8	44
92	A Review of PMMA Bone Cement and Intra-Cardiac Embolism. <i>Materials</i> , 2016 , 9,	3.5	35

91	Murine osteoblastic and osteoclastic differentiation on strontium releasing hydroxyapatite forming cements. <i>Materials Science and Engineering C</i> , 2016 , 63, 429-38	8.3	13
90	Tartrate Resistant Acid Phosphatase Assisted Degradation of Single-Wall Carbon Nanotubes (SWCNTs). <i>ACS Biomaterials Science and Engineering</i> , 2016 , 2, 712-721	5.5	4
89	Synthesis, characterization, and in-vitro cytocompatibility of amorphous tri-calcium magnesium phosphate ceramics. <i>Materials Science and Engineering C</i> , 2016 , 67, 636-645	8.3	5
88	In vivo monitoring the biodegradation of magnesium alloys with an electrochemical H ₂ sensor. <i>Acta Biomaterialia</i> , 2016 , 36, 361-8	10.8	35
87	Magnesium Phosphate Cement Systems for Hard Tissue Applications: A Review. <i>ACS Biomaterials Science and Engineering</i> , 2016 , 2, 1067-1083	5.5	94
86	Study of fluorine doped (Nb,Ir)O ₂ solid solution electro-catalyst powders for proton exchange membrane based oxygen evolution reaction. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2016 , 212, 101-108	3.1	15
85	Nanostructured silicate substituted calcium phosphate (NanoSiCaPs) nanoparticles - Efficient calcium phosphate based non-viral gene delivery systems. <i>Materials Science and Engineering C</i> , 2016 , 69, 486-95	8.3	15
84	Visual H ₂ sensor for monitoring biodegradation of magnesium implants in vivo. <i>Acta Biomaterialia</i> , 2016 , 45, 399-409	10.8	21
83	In vivo study of magnesium plate and screw degradation and bone fracture healing. <i>Acta Biomaterialia</i> , 2015 , 18, 262-9	10.8	211
82	A simple and scalable approach to hollow silicon nanotube (h-SiNT) anode architectures of superior electrochemical stability and reversible capacity. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 11117-11129	13	31
81	High energy density titanium doped-vanadium oxide-vertically aligned CNT composite electrodes for supercapacitor applications. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 8413-8432	13	53
80	Effects of grain refinement on the biocorrosion and in vitro bioactivity of magnesium. <i>Materials Science and Engineering C</i> , 2015 , 57, 294-303	8.3	42
79	Synthesis and electrochemical study of Mg _{1.5} MnO ₃ : A defect spinel cathode for rechargeable magnesium battery. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2015 , 202, 8-14	3.1	9
78	One-step synthesis of fluorescently labelled, single-walled carbon nanotubes. <i>Chemical Communications</i> , 2015 , 51, 17233-6	5.8	1
77	WO ₃ based solid solution oxide promising proton exchange membrane fuel cell anode electro-catalyst. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 18296-18309	13	23
76	Nitrogen and cobalt co-doped zinc oxide nanowires viable photoanodes for hydrogen generation via photoelectrochemical water splitting. <i>Journal of Power Sources</i> , 2015 , 299, 11-24	8.9	61
75	Guar gum: Structural and electrochemical characterization of natural polymer based binder for silicon-carbon composite rechargeable Li-ion battery anodes. <i>Journal of Power Sources</i> , 2015 , 298, 331-340	8.9	65
74	Synthesis, Osteoblast, and Osteoclast Viability of Amorphous and Crystalline Tri-Magnesium Phosphate. <i>ACS Biomaterials Science and Engineering</i> , 2015 , 1, 52-63	5.5	26

73	Direct writing of polymeric coatings on magnesium alloy for tracheal stent applications. <i>Annals of Biomedical Engineering</i> , 2015 , 43, 1158-65	4.7	11
72	Carbon Nanotube-Based Impedimetric Biosensors for Bone Marker Detection. <i>Ceramic Transactions</i> , 2015 , 187-193	0.1	2
71	Nanostructured robust cobalt metal alloy based anode electro-catalysts exhibiting remarkably high performance and durability for proton exchange membrane fuel cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 14015-14032	13	24
70	High performance and durable nanostructured TiN supported Pt ₅₀ Ru ₅₀ anode catalyst for direct methanol fuel cell (DMFC). <i>Journal of Power Sources</i> , 2015 , 293, 437-446	8.9	82
69	Effects of Silicon on Osteoclast Cell Mediated Degradation, Osteogenesis and Vasculogenesis of Brushite Cement. <i>Journal of Materials Chemistry B</i> , 2015 , 3, 8973-8982	7.3	44
68	Regenerative Technologies for Craniomaxillofacial Surgery. <i>Journal of Oral and Maxillofacial Surgery</i> , 2015 , 73, S116-25	1.8	6
67	Scribable multi-walled carbon nanotube-silicon nanocomposites: a viable lithium-ion battery system. <i>Nanoscale</i> , 2015 , 7, 3504-10	7.7	28
66	Systematic Assessment of Synthesized Tri-magnesium Phosphate Powders (Amorphous, Semi-crystalline and Crystalline) and Cements for Ceramic Bone Cement Applications. <i>Journal of Materials Science and Technology</i> , 2015 , 31, 437-444	9.1	15
65	Phase stability and biological property evaluation of plasma sprayed hydroxyapatite coatings for orthopedic and dental applications. <i>Acta Biomaterialia</i> , 2015 , 17, 47-55	10.8	125
64	Magnesium alloys as a biomaterial for degradable craniofacial screws. <i>Acta Biomaterialia</i> , 2014 , 10, 2323-2328	13.28	91
63	Heterostructures for Improved Stability of Lithium Sulfur Batteries. <i>Journal of the Electrochemical Society</i> , 2014 , 161, A1173-A1180	3.9	8
62	Rechargeable magnesium battery: Current status and key challenges for the future. <i>Progress in Materials Science</i> , 2014 , 66, 1-86	42.2	435
61	High performance fluorine doped (Sn,Ru)O ₂ oxygen evolution reaction electro-catalysts for proton exchange membrane based water electrolysis. <i>Journal of Power Sources</i> , 2014 , 245, 362-370	8.9	35
60	Alginate encapsulation of human embryonic stem cells to enhance directed differentiation to pancreatic islet-like cells. <i>Tissue Engineering - Part A</i> , 2014 , 20, 3198-211	3.9	45
59	Nanostructured F doped IrO ₂ electro-catalyst powders for PEM based water electrolysis. <i>Journal of Power Sources</i> , 2014 , 269, 855-865	8.9	39
58	MC3T3-E1 proliferation and differentiation on biphasic mixtures of Mg substituted β-tricalcium phosphate and amorphous calcium phosphate. <i>Materials Science and Engineering C</i> , 2014 , 45, 589-98	8.3	20
57	Fluorine doped (Ir,Sn,Nb)O ₂ anode electro-catalyst for oxygen evolution via PEM based water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 664-674	6.7	43
56	A study of strontium doped calcium phosphate coatings on AZ31. <i>Materials Science and Engineering C</i> , 2014 , 40, 357-65	8.3	25

55	Evaluation of magnesium-yttrium alloy as an extraluminal tracheal stent. <i>Journal of Biomedical Materials Research - Part A</i> , 2014 , 102, 611-20	5.4	12
54	Nanostructured (Ir,Sn)O ₂ :F ⁻ Oxygen Evolution Reaction Anode Electro-Catalyst Powders for PEM Based Water Electrolysis. <i>Journal of the Electrochemical Society</i> , 2014 , 161, F868-F875	3.9	18
53	A Complexed Sol-Gel (CSG) Approach to High Surface Area (HSA) Durable Ultra Active Platinum-Ruthenium Electro-Catalysts for Direct Methanol Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2014 , 161, F1053-F1060	3.9	2
52	Early differentiation patterning of mouse embryonic stem cells in response to variations in alginate substrate stiffness. <i>Journal of Biological Engineering</i> , 2013 , 7, 9	6.3	32
51	Biodegradable poly(lactide-co-glycolide) coatings on magnesium alloys for orthopedic applications. <i>Journal of Materials Science: Materials in Medicine</i> , 2013 , 24, 85-96	4.5	76
50	Corrosion protection and improved cytocompatibility of biodegradable polymeric layer-by-layer coatings on AZ31 magnesium alloys. <i>Acta Biomaterialia</i> , 2013 , 9, 8704-13	10.8	64
49	In vitro degradation and cytotoxicity response of Mg-4% Zn-0.5% Zr (ZK40) alloy as a potential biodegradable material. <i>Acta Biomaterialia</i> , 2013 , 9, 8534-47	10.8	100
48	A simple facile approach to large scale synthesis of high specific surface area silicon nanoparticles. <i>Journal of Solid State Chemistry</i> , 2013 , 208, 93-98	3.3	17
47	Fluorine-Doped IrO ₂ : A Potential Electrocatalyst for Water Electrolysis. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 20542-20547	3.8	25
46	High performance robust F-doped tin oxide based oxygen evolution electro-catalysts for PEM based water electrolysis. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 4026	13	57
45	Novel F-doped IrO ₂ oxygen evolution electrocatalyst for PEM based water electrolysis. <i>Journal of Power Sources</i> , 2013 , 222, 313-317	8.9	44
44	Tin and graphite based nanocomposites: Potential anode for sodium ion batteries. <i>Journal of Power Sources</i> , 2013 , 225, 316-322	8.9	229
43	Novel processing of iron-manganese alloy-based biomaterials by inkjet 3-D printing. <i>Acta Biomaterialia</i> , 2013 , 9, 8593-603	10.8	150
42	In vitro and in vivo corrosion, cytocompatibility and mechanical properties of biodegradable Mg-Y-Ca-Zr alloys as implant materials. <i>Acta Biomaterialia</i> , 2013 , 9, 8518-33	10.8	90
41	A layer-by-layer approach to natural polymer-derived bioactive coatings on magnesium alloys. <i>Acta Biomaterialia</i> , 2013 , 9, 8690-703	10.8	123
40	Nano-Sized Calcium Phosphate (CaP) Carriers for Non-Viral Gene/Drug Delivery 2013 , 203-236		2
39	Effects of Zinc and Strontium Substitution in Tricalcium Phosphate on Osteoclast Differentiation and Resorption. <i>Biomaterials Science</i> , 2013 , 1,	7.4	64
38	Exploring calcium tantalates and niobates as prospective catalyst supports for water electrolysis. <i>Journal of Power Sources</i> , 2012 , 202, 190-199	8.9	6

37	Resorbable Tricalcium Phosphates for Bone Tissue Engineering: Influence of SrO Doping. <i>Journal of the American Ceramic Society</i> , 2012 , 95, 3095-3102	3.8	11
36	Electrodeposition of amorphous silicon anode for lithium ion batteries. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2012 , 177, 1157-1162	3.1	43
35	Nanoscale engineered electrochemically active silicon/CNT heterostructures-novel anodes for Li-ion application. <i>Electrochimica Acta</i> , 2012 , 85, 680-684	6.7	32
34	Recent advances in bone tissue engineering scaffolds. <i>Trends in Biotechnology</i> , 2012 , 30, 546-54	15.1	1417
33	Nano-sized calcium phosphate (CaP) carriers for non-viral gene delivery. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2012 , 177, 289-302	3.1	57
32	Osteoclastogenesis and osteoclastic resorption of tricalcium phosphate: effect of strontium and magnesium doping. <i>Journal of Biomedical Materials Research - Part A</i> , 2012 , 100, 2450-61	5.4	33
31	Novel (Ir,Sn,Nb)O ₂ anode electrocatalysts with reduced noble metal content for PEM based water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 3001-3013	6.7	54
30	Synthesis and Characterization of Nanostructured Niobium and Molybdenum Nitrides by a Two-Step Transition Metal Halide Approach. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 2371-2378	2.8	62
29	A CALPHAD study on the thermodynamic stability of calcium-, zinc-, and yttrium-doped magnesium in aqueous environments. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2011 , 176, 1727-1732	3.1	3
28	Novel alginate based coatings on Mg alloys. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2011 , 176, 1703-1710	3.1	14
27	Microstructure of Mg ₂ Ni thin film derived by pulsed laser deposition. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2011 , 176, 1690-1694	3.1	6
26	Novel sol-gel derived calcium phosphate coatings on Mg ₄ Y alloy. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2011 , 176, 1679-1689	3.1	40
25	Intracellular trafficking pathways involved in the gene transfer of nano-structured calcium phosphate-DNA particles. <i>Biomaterials</i> , 2011 , 32, 7662-70	15.6	41
24	Induction plasma sprayed Sr and Mg doped nano hydroxyapatite coatings on Ti for bone implant. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2011 , 99, 258-65	3.5	81
23	Vertically aligned silicon/carbon nanotube (VASCNT) arrays: Hierarchical anodes for lithium-ion battery. <i>Electrochemistry Communications</i> , 2011 , 13, 429-432	5.1	84
22	Amorphous silicon/carbon based nano-scale thin film anode materials for lithium ion batteries. <i>Electrochimica Acta</i> , 2011 , 56, 4717-4723	6.7	102
21	Ab-initio study of fluorine-doped tin dioxide: A prospective catalyst support for water electrolysis. <i>Physica B: Condensed Matter</i> , 2011 , 406, 471-477	2.8	22
20	Ferrocene and Inconel assisted growth of dense carbon nanotube forests on copper foils. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011 , 29, 04D102	1.3	7

19	Nanostructured hybrid silicon/carbon nanotube heterostructures: reversible high-capacity lithium-ion anodes. <i>ACS Nano</i> , 2010 , 4, 2233-41	16.7	460
18	Sol-gel synthesis of Pt-Ru-Os-Ir based anode electro-catalysts for direct methanol fuel cells. <i>Journal of Alloys and Compounds</i> , 2010 , 506, 698-702	5.7	19
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12	Novel in-situ synthesis and characterization of nanostructured magnesium substituted tricalcium phosphate (MTCMP). <i>Materials Science and Engineering C</i> , 2009 , 29, 69-77	8.3	25
11	Exploring tin tantalates and niobates as prospective catalyst supports for water electrolysis. <i>Physica B: Condensed Matter</i> , 2009 , 404, 1737-1745	2.8	13
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