Mangal Roy

List of Publications by Year
in descending order

43 papers	3,936 citations	257450 24 h-index	243625 44 g-index
46 all docs	46 docs citations	46 times ranked	5683 citing authors

#	Article	IF	Citations
1	Recent advances in bone tissue engineering scaffolds. Trends in Biotechnology, 2012, 30, 546-554.	9.3	1,763
2	Antibacterial and biological characteristics of silver containing and strontium doped plasma sprayed hydroxyapatite coatings. Acta Biomaterialia, 2012, 8, 3144-3152.	8.3	301
3	Induction plasma sprayed nano hydroxyapatite coatings on titanium for orthopaedic and dental implants. Surface and Coatings Technology, 2011, 205, 2785-2792.	4.8	216
4	Mechanical, In vitro Antimicrobial, and Biological Properties of Plasma-Sprayed Silver-Doped Hydroxyapatite Coating. ACS Applied Materials & Interfaces, 2012, 4, 1341-1349.	8.0	167
5	Laser processing of bioactive tricalcium phosphate coating on titanium for load-bearing implants. Acta Biomaterialia, 2008, 4, 324-333.	8.3	157
6	Phase stability and biological property evaluation of plasma sprayed hydroxyapatite coatings for orthopedic and dental applications. Acta Biomaterialia, 2015, 17, 47-55.	8.3	156
7	Induction plasma sprayed Sr and Mg doped nano hydroxyapatite coatings on Ti for bone implant. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 99B, 258-265.	3.4	92
8	Effects of zinc and strontium substitution in tricalcium phosphate on osteoclast differentiation and resorption. Biomaterials Science, 2013, 1, 74-82.	5.4	82
9	Compositionally graded hydroxyapatite/tricalcium phosphate coating on Ti by laser and induction plasma. Acta Biomaterialia, 2011, 7, 866-873.	8.3	77
10	Effects of grain refinement on the biocorrosion and in vitro bioactivity of magnesium. Materials Science and Engineering C, 2015, 57, 294-303.	7.3	66
11	Osteoclastogenesis and osteoclastic resorption of tricalcium phosphate: Effect of strontium and magnesium doping. Journal of Biomedical Materials Research - Part A, 2012, 100A, 2450-2461.	4.0	64
12	Recent Developments in Magnesium Metalâ€“Matrix Composites for Biomedical Applications: A Review. ACS Biomaterials Science and Engineering, 2020, 6, 4748-4773.	5.2	59
13	Effects of silicon on osteoclast cell mediated degradation, in vivo osteogenesis and vasculogenesis of brushite cement. Journal of Materials Chemistry B, 2015, 3, 8973-8982.	5.8	56
14	MgO-Doped Tantalum Coating on Ti: Microstructural Study and Biocompatibility Evaluation. ACS Applied Materials & Interfaces, 2012, 4, 577-580.	8.0	50
15	In vitro antimicrobial and biological properties of laser assisted tricalcium phosphate coating on titanium for load bearing implant. Materials Science and Engineering C, 2009, 29, 1965-1968.	7.3	41
16	Effect of cerium-based conversion coating on corrosion behavior of squeeze cast Mg-4Âwt% Y alloy in 0.1ÂM NaCl solution. Surface and Coatings Technology, 2021, 421, 127451.	4.8	38
17	Mechanical property and in vitro biocompatibility of brushite cement modified by polyethylene glycol. Materials Science and Engineering C, 2012, 32, 2145-2152.	7.3	37
18	Processing and degradation behavior of porous magnesium scaffold for biomedical applications. Advanced Powder Technology, 2017, 28, 3204-3212.	4.1	37

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19	Comparison of Tantalum and Hydroxyapatite Coatings on Titanium for Applications in Load Bearing Implants. Advanced Engineering Materials, 2010, 12, B637.	3.5	36
20	Feâ€“Mnâ€“Cu alloy as biodegradable material with enhanced antimicrobial properties. Materials Letters, 2019, 237, 323-327.	2.6	32
21	Preparation and in vivo biocompatibility studies of different mesoporous bioactive glasses. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 89, 89-98.	3.1	32
22	Laser surface modification of metallic biomaterials. Jom, 2011, 63, 94-99.	1.9	29
23	Laser Surface Modification of Electrophoretically Deposited Hydroxyapatite Coating on Titanium. Journal of the American Ceramic Society, 2008, 91, 3517-3521.	3.8	27
24	Mechanical and <i>in vitro</i> degradation behavior of magnesiumâ€bioactive glass composites prepared by SPS for biomedical applications. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 352-365.	3.4	27
25	In vitro and in vivo degradability, biocompatibility and antimicrobial characteristics of Cu added iron-manganese alloy. Journal of Materials Science and Technology, 2021, 84, 159-172.	10.7	23
26	pH Tunable Fluorescent Calcium Phosphate Nanocomposite for Sensing and Controlled Drug Delivery. Advanced Engineering Materials, 2011, 13, B10-B17.	3.5	22
27	Synergistic Effects of Silicon/Zinc Doped Brushite and Silk Scaffolding in Augmenting the Osteogenic and Angiogenic Potential of Composite Biomimetic Bone Grafts. ACS Biomaterials Science and Engineering, 2019, 5, 1462-1475.	5.2	22
28	Effects of Sr doping on biodegradation and bone regeneration of magnesium phosphate bioceramics. Materialia, 2019, 5, 100211.	2.7	21
29	Magnesium Silicate Bioceramics for Bone Regeneration: A Review. Journal of the Indian Institute of Science, 2019, 99, 261-288.	1.9	20
30	In vitro corrosion and cytocompatibility studies of hot press sintered magnesium-bioactive glass composite. Materialia, 2019, 5, 100245.	2.7	19
31	Effect of zinc oxide doping on in vitro degradation of magnesium silicate bioceramics. Materials Letters, 2017, 207, 100-103.	2.6	18
32	In Vivo Biocompatibility of Zinc-Doped Magnesium Silicate Bio-Ceramics. ACS Biomaterials Science and Engineering, 2018, 4, 2126-2133.	5.2	18
33	<i>In Vitro</i> Biodegradation and <i>In Vivo</i> Biocompatibility of Forsterite Bio-Ceramics: Effects of Strontium Substitution. ACS Biomaterials Science and Engineering, 2019, 5, 530-543.	5.2	18
34	In vivo osteogenesis of plasma sprayed ternary-ion doped hydroxyapatite coatings on Ti6Al4V for orthopaedic applications. Ceramics International, 2022, 48, 11475-11488.	4.8	17
35	Decellularized xenogenic cartilage extracellular matrix (ECM) scaffolds for the reconstruction of osteochondral defects in rabbits. Journal of Materials Chemistry B, 2021, 9, 4873-4894.	5.8	16
36	Bulk Processing of Hydroxyapatite Nanopowder Using Radio Frequency Induction Plasma. Journal of the American Ceramic Society, 2010, 93, 3720-3725.	3.8	13

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37	Anomalous in Vitro and in Vivo Degradation of Magnesium Phosphate Bioceramics: Role of Zinc Addition. ACS Biomaterials Science and Engineering, 2019, 5, 5097-5106.	5.2	13
38	Resorbable Tricalcium Phosphates for Bone Tissue Engineering: Influence of <scp><scp>SrO</scp></scp> Doping. Journal of the American Ceramic Society, 2012, 95, 3095-3102.	3.8	12
39	Degradability and in vivo biocompatibility of doped magnesium phosphate bioceramic scaffolds. Materials Letters, 2020, 259, 126892.	2.6	12
40	Effects of multiscale porosity and pore interconnectivity on <i>in vitro</i> and <i>in vivo</i> degradation and biocompatibility of Feâ€"Mnâ€"Cu scaffolds. Journal of Materials Chemistry B, 2021, 9, 4340-4354.	5.8	12
41	Quantitative assessment of degradation, cytocompatibility, and in vivo bone regeneration of silicon-incorporated magnesium phosphate bioceramics. Journal of Materials Research, 2019, 34, 4024-4036.	2.6	10
42	Effects of cerium addition on the corrosion resistance and biocompatibility of Mgâ€"2Srâ€"1Zr Alloy. Journal of Materials Research, 2020, 35, 3124-3135.	2.6	5
43	Microstructure, mechanical, in vitro corrosion and biocompatibility response study of as-cast and as-rolled Mgâ€"5Znâ€"0.5Zr alloy. MRS Advances, 2021, 6, 472-476.	0.9	1