Abhijit Roy

List of Publications by Year
in descending order

52	1,800	331259 21	264894 42
papers	citations	h-index	g-index

53	53	53	2543
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Binder-jetting 3D printing and alloy development of new biodegradable Fe-Mn-Ca/Mg alloys. Acta Biomaterialia, 2016, 45, 375-386.	4.1	166
2	Magnesium Phosphate Cement Systems for Hard Tissue Applications: A Review. ACS Biomaterials Science and Engineering, 2016, 2, 1067-1083.	2.6	155
3	Chemical Vapor Synthesis of Size-Selected Zinc Oxide Nanoparticles. Small, 2005, 1, 540-552.	5.2	144
4	A layer-by-layer approach to natural polymer-derived bioactive coatings on magnesium alloys. Acta Biomaterialia, 2013, 9, 8690-8703.	4.1	144
5	Structure-Property-Function Relationships in Nanoscale Oxide Sensors: A Case Study Based on Zinc Oxide. Advanced Functional Materials, 2007, 17, 1385-1391.	7.8	103
6	Biodegradable poly(lactide-co-glycolide) coatings on magnesium alloys for orthopedic applications. Journal of Materials Science: Materials in Medicine, 2013, 24, 85-96.	1.7	92
7	First Preparation of Nanocrystalline Zinc Silicate by Chemical Vapor Synthesis Using an Organometallic Single-Source Precursor. Chemistry - A European Journal, 2004, 10, 1565-1575.	1.7	86
8	Corrosion protection and improved cytocompatibility of biodegradable polymeric layer-by-layer coatings on AZ31 magnesium alloys. Acta Biomaterialia, 2013, 9, 8704-8713.	4.1	77
9	Preparation and characterization of nanocrystalline disordered lithium ferrite by citrate precursor method. Journal of Magnetism and Magnetic Materials, 2004, 270, 224-229.	1.0	66
10	Structure and thermal stability of biodegradable Mgâ€"Znâ€"Ca based amorphous alloys synthesized by mechanical alloying. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1637-1643.	1.7	57
11	Novel solâ€"gel derived calcium phosphate coatings on Mg4Y alloy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1679-1689.	1.7	47
12	<sup />Programmed Platelet-Derived Growth Factor-BB and Bone Morphogenetic Protein-2 Delivery from a Hybrid Calcium Phosphate/Alginate Scaffold. Tissue Engineering - Part A, 2017, 23, 1382-1393.	1.6	41
13	Synthesis, Osteoblast, and Osteoclast Viability of Amorphous and Crystalline Tri-Magnesium Phosphate. ACS Biomaterials Science and Engineering, 2015, 1, 52-63.	2.6	40
14	Organometallics Meet Colloid Chemistry:Â A Case Study in Three Phases Based on Molecular Carbonyl Precursors Containing Zinc and Manganese. Journal of the American Chemical Society, 2007, 129, 371-375.	6.6	38
15	Porous calcium phosphate-poly (lactic-co-glycolic) acid composite bone cement: A viable tunable drug delivery system. Materials Science and Engineering C, 2016, 59, 92-101.	3.8	35
16	A study of strontium doped calcium phosphate coatings on AZ31. Materials Science and Engineering C, 2014, 40, 357-365.	3.8	31
17	Size dependent magnetic phase of nanocrystalline Co0.2Zn0.8Fe2O4. Journal of Applied Physics, 2001, 90, 4138-4142.	1.1	27
18	Systematic Assessment of Synthesized Tri-magnesium Phosphate Powders (Amorphous, Semi-crystalline) Tj ETQq0 0 0 rgBT /Overlock 1 Technology, 2015, 31, 437-444.	5.6	25

#	Article	IF	Citations
19	Cross-linked enzyme aggregates of alginate lyase: A systematic engineered approach to controlled degradation of alginate hydrogel. International Journal of Biological Macromolecules, 2018, 115, 176-184.	3.6	25
20	MC3T3-E1 proliferation and differentiation on biphasic mixtures of Mg substituted Î²-tricalcium phosphate and amorphous calcium phosphate. Materials Science and Engineering C, 2014, 45, 589-598.	3.8	24
21	In Vitro and in Vivo Evaluation of Multiphase Ultrahigh Ductility Mgâ€“Liâ€“Zn Alloys for Cardiovascular Stent Application. ACS Biomaterials Science and Engineering, 2018, 4, 919-932.	2.6	22
22	Novel alginate based coatings on Mg alloys. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1703-1710.	1.7	21
23	From molecules to metastable solids: solid-state and chemical vapour syntheses (CVS) of nanocrystalline ZnO and Zn. Comptes Rendus Chimie, 2003, 6, 273-281.	0.2	20
24	Direct Writing of Polymeric Coatings on Magnesium Alloy for Tracheal Stent Applications. Annals of Biomedical Engineering, 2015, 43, 1158-1165.	1.3	20
25	Study of hMSC proliferation and differentiation on Mg and Mgâ€“Sr containing biphasic Î²-tricalcium phosphate and amorphous calcium phosphate ceramics. Materials Science and Engineering C, 2016, 64, 219-228.	3.8	19
26	Nanostructured silicate substituted calcium phosphate (NanoSiCaPs) nanoparticles â€" Efficient calcium phosphate based non-viral gene delivery systems. Materials Science and Engineering C, 2016, 69, 486-495.	3.8	18
27	Effect of zinc oxide doping on in vitro degradation of magnesium silicate bioceramics. Materials Letters, 2017, 207, 100-103.	1.3	18
28	<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.	2.6	18
29	Aqueous deposition of calcium phosphates and silicate substituted calcium phosphates on magnesium alloys. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1695-1702.	1.7	17
30	Murine osteoblastic and osteoclastic differentiation on strontium releasing hydroxyapatite forming cements. Materials Science and Engineering C, 2016, 63, 429-438.	3.8	17
31	Biomimetic Rotated Lamellar Plywood Motifs by Additive Manufacturing of Metal Alloy Scaffolds for Bone Tissue Engineering. ACS Biomaterials Science and Engineering, 2017, 3, 648-657.	2.6	17
32	Corrosion and bone healing of Mg-Y-Zn-Zr-Ca alloy implants: Comparative in vivo study in a non-immobilized rat femoral fracture model. Journal of Biomaterials Applications, 2019, 33, 1178-1194.	1.2	16
33	Magnetic properties of Fe2Mo1âˆ'xTixO4. Solid State Communications, 1997, 103, 269-272.	0.9	14
34	Magnetic ordering in Fe2âˆ'xZnxMoO4(X=0.1â€“1) spinel. Journal of Magnetism and Magnetic Materials, 2001, 223, 39-49.	1.0	14
35	Effects of strontium-substitution in sputter deposited calcium phosphate coatings on the rate of corrosion of magnesium alloys. Surface and Coatings Technology, 2021, 421, 127446.	2.2	14
36	Studies on Some Titanium-Substituted Fe2MoO4Spinel Oxides. Journal of Solid State Chemistry, 1998, 140, 56-61.	1.4	13

#	Article	IF	Citations
37	MÃ¶ssbauer studies on titanium substituted molybdenum ferrite. Solid State Communications, 2000, 114, 143-148.	0.9	13
38	Single crystal structure and MÃ¶ssbauer studies of a new cation-deficient thiospinel: Cu5.47Fe2.9Sn13.1S32. Materials Research Bulletin, 2001, 36, 2429-2435.	2.7	12
39	In-vivo efficacy of biodegradable ultrahigh ductility Mg-Li-Zn alloy tracheal stents for pediatric airway obstruction. Communications Biology, 2020, 3, 787.	2.0	12
40	Synthesis, characterization, and in-vitro cytocompatibility of amorphous Î²-tri-calcium magnesium phosphate ceramics. Materials Science and Engineering C, 2016, 67, 636-645.	3.8	11
41	Effect of Lithium and Aluminum on the Mechanical Properties, <i>In Vivo</i> and <i>In Vitro</i> Degradation, and Toxicity of Multiphase Ultrahigh Ductility Mgâ€"Liâ€"Alâ€"Zn Quaternary Alloys for Vascular Stent Application. ACS Biomaterials Science and Engineering, 2020, 6, 1950-1964.	2.6	10
42	Microstructure of Mgâ€"Znâ€"Ca thin film derived by pulsed laser deposition. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1690-1694.	1.7	7
43	Electrical and Magnetic Characterization of Rh2O3-I. Materials Research Bulletin, 1998, 33, 547-551.	2.7	6
44	Magnetic studies on Zn-substituted molybdenum ferrite. Journal of Magnetism and Magnetic Materials, 1999, 202, 359-364.	1.0	6
45	Cluster-glass behaviour of the substituted molybdenum ferrite: a magnetic and MÃ¶ssbauer study. Journal of Physics Condensed Matter, 2000, 12, 9963-9972.	0.7	5
46	Surface mediated non-viral gene transfection on titanium substrates using polymer electrolyte and nanostructured silicate substituted calcium phosphate pDNA (NanoSiCaPs) composites. Materials Today Communications, 2018, 16, 169-173.	0.9	5
47	A New Silicon-Doped Cation-Deficient Thiospinel, Cu5.52(8)Si1.04(8) â–¡1.44Fe4Sn12S32: Crystal Structure, MÃ¶ssbauer Studies, and Electrical Properties. Journal of Solid State Chemistry, 2001, 161, 327-331.	1.4	4
48	MÃ¶ssbauer studies on Zn-substituted iron molybdate. Materials Research Bulletin, 2002, 37, 2383-2392.	2.7	4
49	One-step synthesis of fluorescently labelled, single-walled carbon nanotubes. Chemical Communications, 2015, 51, 17233-17236.	2.2	2
50	Role of ferric ions in the magnetic interactions of substituted iron molybdate. Journal of Applied Physics, 2000, 87, 7133-7135.	1.1	1
51	Subglottic Stenosis: Development of a Clinically Relevant Endoscopic Animal Model. Otolaryngology - Head and Neck Surgery, 2020, 162, 905-913.	1.1	1
52	Studies on Compensated Cu-Cr-Al Spinel Oxide Semiconductors. Journal of Solid State Chemistry, 1995, 120, 388-390.	1.4	0