Toshiki Miyazaki

List of Publications by Year
in descending order

127	3,540	218677	149698
papers	citations	26 h-index	56 g-index

129	129	129	3810
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Preparation and assessment of revised simulated body fluids. Journal of Biomedical Materials Research Part B, 2003, 65A, 188-195.	3.1	897
2	Mechanism of bonelike apatite formation on bioactive tantalum metal in a simulated body fluid. Biomaterials, 2002, 23, 827-832.	11.4	211
3	Bonding of alkali- and heat-treated tantalum implants to bone. Journal of Biomedical Materials Research Part B, 2000, 53, 28-35.	3.1	165
4	Deposition of bone-like apatite on silk fiber in a solution that mimics extracellular fluid. Journal of Biomedical Materials Research Part B, 2003, 65A, 283-289.	3.1	148
5	Coating of an apatite layer on polyamide films containing sulfonic groups by a biomimetic process. Biomaterials, 2004, 25, 4529-4534.	11.4	146
6	Bioactive ceramic-based materials with designed reactivity for bone tissue regeneration. Journal of the Royal Society Interface, 2009, 6, S349-60.	3.4	135
7	Bioactive tantalum metal prepared by NaOH treatment. , 2000, 50, 35-42.		125
8	Apatite deposition on polyamide films containing carboxyl group in a biomimetic solution. Journal of Materials Science: Materials in Medicine, 2003, 14, 569-574.	3.6	107
9	Title is missing!. Journal of Sol-Gel Science and Technology, 2001, 21, 83-88.	2.4	97
10	Apatite-Forming Ability of Niobium Oxide Gels in a Simulated Body Fluid.. Journal of the Ceramic Society of Japan, 2001, 109, 929-933.	1.3	83
11	Coating bone-like apatite onto organic substrates using solutions mimicking body fluid. Journal of Tissue Engineering and Regenerative Medicine, 2007, 1, 33-38.	2.7	71
12	Bioactive PMMA bone cement prepared by modification with methacryloxypropyltrimethoxysilane and calcium chloride. Journal of Biomedical Materials Research - Part A, 2003, 67A, 1417-1423.	4.0	58
13	Apatite-forming ability of polyglutamic acid hydrogels in a body-simulating environment. Journal of Materials Science: Materials in Medicine, 2008, 19, 2269-2274.	3.6	55
14	A novel covalently crosslinked gel of alginate and silane with the ability to form bone-like apatite. Journal of Biomedical Materials Research Part B, 2004, 71A, 596-601.	3.1	54
15	Coating of bone-like apatite for development of bioactive materials for bone reconstruction. Biomedical Materials (Bristol), 2007, 2, R17-R23.	3.3	48
16	Removal of Formaldehyde by Hydroxyapatite Layer Biomimetically Deposited on Polyamide Film. Environmental Science & Technology, 2006, 40, 4281-4285.	10.0	41
17	Preparation of Bioactive Chitosan-hydroxyapatite Nanocomposites for Bone Repair through Mechanochemical Reaction. Materials Transactions, 2004, 45, 994-998.	1.2	38
18	Bioactive carbonâ€“PEEK composites prepared by chemical surface treatment. Materials Science and Engineering C, 2017, 70, 71-75.	7.3	36

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19	Enhancement of sludge reduction and methane production by removing extracellular polymeric substances from waste activated sludge. Chemosphere, 2014, 117, 552-558.	8.2	34
20	Synthesis of Bioactive Organicâ€“Inorganic Nanohybrid for Bone Repair through Solâ€“Gel Processing. Journal of Nanoscience and Nanotechnology, 2003, 3, 511-515.	0.9	34
21	Bioactivity and Mechanical Properties of Cellulose/Carbonate Hydroxyapatite Composites Prepared in situ through Mechanochemical Reaction. Journal of Biomaterials Applications, 2006, 21, 179-194.	2.4	31
22	Relationship between apatite-forming ability and mechanical properties of bioactive PMMA-based bone cement modified with calcium salts and alkoxysilane. Journal of Materials Science: Materials in Medicine, 2008, 19, 1399-1405.	3.6	31
23	Mesoporous Calcium Phosphate Via Post-Treatment of alpha-TCP. Journal of the American Ceramic Society, 2005, 88, 822-826.	3.8	29
24	In vitro apatite formation on polyamide containing carboxyl groups modified with silanol groups. Journal of Materials Science: Materials in Medicine, 2007, 18, 1037-1042.	3.6	29
25	Organicâ€“Inorganic Composites Designed for Biomedical Applications. Biological and Pharmaceutical Bulletin, 2013, 36, 1670-1675.	1.4	28
26	Apatite mineralization abilities and mechanical properties of covalently cross-linked pectin hydrogels. Materials Science and Engineering C, 2009, 29, 1765-1769.	7.3	27
27	Thermoreversible behavior of Î°-carrageenan and its apatite-forming ability in simulated body fluid. Materials Science and Engineering C, 2011, 31, 1472-1476.	7.3	27
28	Design of novel bioactive materials through organic modification of calcium silicate. Journal of the European Ceramic Society, 2007, 27, 1527-1533.	5.7	25
29	Biomimetic deposition of hydroxyapatite on a synthetic polypeptide with Î² sheet structure in a solution mimicking body fluid. Journal of Materials Science: Materials in Medicine, 2008, 19, 387-393.	3.6	22
30	Modification of Polyglutamic Acid with Silanol Groups and Calcium Salts to Induce Calcification in a Simulated Body Fluid. Journal of Biomaterials Applications, 2011, 25, 581-594.	2.4	22
31	Formation of bioactive N-doped TiO2 on Ti with visible light-induced antibacterial activity using NaOH, hot water, and subsequent ammonia atmospheric heat treatment. Colloids and Surfaces B: Biointerfaces, 2016, 145, 285-290.	5.0	21
32	Fabrication of poly(vinyl alcohol)â€“apatite hybrids through biomimetic process. Journal of the European Ceramic Society, 2007, 27, 1585-1588.	5.7	20
33	Preparation of ferromagnetic microcapsules for hyperthermia using water/oil emulsion as a reaction field. Materials Science and Engineering C, 2012, 32, 692-696.	7.3	20
34	In situ synthesis of magnetic iron oxide nanoparticles in chitosan hydrogels as a reaction field: Effect of cross-linking density. Colloids and Surfaces B: Biointerfaces, 2019, 179, 334-339.	5.0	20
35	Bioactive PMMA-Based Bone Cement Modified with Methacryloxypropyltrimethoxysilane and Calcium Salts-Effects of Calcium Salts on Apatite-Forming Ability-. Journal of the Ceramic Society of Japan, 2003, 111, 738-742.	1.3	19
36	FABRICATION AND CHEMICAL DURABILITY OF POROUS BODIES CONSISTING OF BIPHASIC TRICALCIUM PHOSPHATES. Phosphorus Research Bulletin, 2004, 17, 95-100.	0.6	19

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37	In vivo Response of Bioactive PMMA-based Bone Cement Modified with Alkoxysilane and Calcium Acetate. Journal of Biomaterials Applications, 2008, 23, 213-228.	2.4	19
38	Apatite formation abilities and mechanical properties of hydroxyethylmethacrylate-based organicâ€“inorganic hybrids incorporated with sulfonic groups and calcium ions. Journal of Materials Science: Materials in Medicine, 2009, 20, 157-161.	3.6	18
39	A Comparative Study of Apatite Deposition on Polyamide Films Containing Different Functional Groups under a Biomimetic Condition. Journal of the Ceramic Society of Japan, 2005, 113, 588-592.	1.3	17
40	MC3T3â€E1 and RAW264.7 cell response to hydroxyapatite and alphaâ€type alumina adsorbed with bovine serum albumin. Journal of Biomedical Materials Research - Part A, 2014, 102, 1880-1886.	4.0	17
41	Solâ€“gel synthesis of magnetic TiO2 microspheres and characterization of their in vitro heating ability for hyperthermia treatment of cancer. Journal of Sol-Gel Science and Technology, 2015, 75, 90-97.	2.4	17
42	Biofilm formation of periodontal pathogens on hydroxyapatite surfaces: Implications for periodontium damage. Journal of Biomedical Materials Research - Part A, 2016, 104, 2873-2880.	4.0	17
43	Carboxymethyldextran/magnetite hybrid microspheres designed for hyperthermia. Journal of Materials Science: Materials in Medicine, 2013, 24, 1125-1129.	3.6	16
44	Effects of organic polymer addition in magnetite synthesis on the crystalline structure. RSC Advances, 2014, 4, 23359-23363.	3.6	16
45	Enhanced biosafety of silica coated gadolinium based nanoparticles. Journal of Materials Science: Materials in Medicine, 2017, 28, 46.	3.6	16
46	Preparation of Porous Glass-Ceramics Containing Whitlockite and Diopside for Bone Repair. Journal of the Ceramic Society of Japan, 2006, 114, 82-86.	1.3	15
47	Fabrication of yttria microcapsules for radiotherapy from water/oil emulsion. Journal of the Ceramic Society of Japan, 2010, 118, 479-482.	1.1	15
48	In vitro apatite formation and drug loading/release of porous TiO2 microspheres prepared by solâ€“gel processing with different SiO2 nanoparticle contents. Materials Science and Engineering C, 2015, 50, 317-323.	7.3	15
49	Adsorption of Laminin on Hydroxyapatite and Alumina and the MC3T3-E1 Cell Response. ACS Biomaterials Science and Engineering, 2016, 2, 1162-1168.	5.2	15
50	Evaluation of apatite-forming ability and mechanical property of pectin hydrogels. Journal of the Ceramic Society of Japan, 2008, 116, 74-78.	1.1	14
51	Biomineralization on chemically synthesized collagen containing immobilized poly-Î³-glutamic acid. Dental Materials Journal, 2013, 32, 544-549.	1.8	14
52	Preparation of chitosan-hydroxyapatite composite mono-fiber using coagulation method and their mechanical properties. Carbohydrate Polymers, 2017, 175, 355-360.	10.2	14
53	Development of bioactive materials based on bone-bonding mechanism on metal oxides. Journal of the Ceramic Society of Japan, 2008, 116, 260-264.	1.1	13
54	Effect of Autoclave and Hot Water Treatments on Surface Structure and <i>In Vitro</i> Apatite-Forming Ability of NaOH- and Heat-Treated Bioactive Titanium Metal. Materials Transactions, 2013, 54, 811-816.	1.2	13

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55	Structures of organic additives modified magnetite nanoparticles. Ceramics International, 2016, 42, 6000-6004.	4.8	13
56	Control of crystalline phase and morphology of calcium carbonate by electrolysis: Effects of current and temperature. Ceramics International, 2019, 45, 14039-14044.	4.8	13
57	Effects of Cross-Linking Agent on Apatite-Forming Ability and Mechanical Property of Organic-Inorganic Hybrids Based on Starch. Materials Transactions, 2007, 48, 317-321.	1.2	12
58	Effect of fibronectin adsorption on osteoblastic cellular responses to hydroxyapatite and alumina. Materials Science and Engineering C, 2016, 69, 1268-1272.	7.3	11
59	Apatite formation abilities of various carrageenan gels in simulated body environment. Journal of the Ceramic Society of Japan, 2010, 118, 487-490.	1.1	10
60	Structural Effects of Sulfur-Containing Functional Groups on Apatite Formation on Ca²⁺-Modified Copolymers in a Simulated Body Environment. ACS Omega, 2018, 3, 5627-5633.	3.5	10
61	In vitro apatite mineralization and heat generation of magnetite-reduced graphene oxide nanocomposites for hyperthermia treatment. Materials Science and Engineering C, 2019, 99, 68-72.	7.3	10
62	Design of bone-integrating organic-inorganic composite suitable for bone repair. Frontiers in Bioscience - Elite, 2013, E5, 333-340.	1.8	9
63	Development of hafnium metal and titaniumâ€hafnium alloys having apatiteâ€forming ability by chemical surface modification. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 2519-2523.	3.4	9
64	Synthesis of Bioactive Organic-Inorganic Hybrids from Tetraisopropyl Titanate and Hydroxyethylmethacrylate. Journal of the Ceramic Society of Japan, 2006, 114, 87-91.	1.3	8
65	Synthesis of Osteoconductive Organicâ€"Inorganic Nanohybrids through Modification of Chitin with Alkoxysilane and Calcium Chloride. Journal of Biomaterials Applications, 2007, 22, 71-81.	2.4	8
66	Bioactive Co-Cr alloy for biomedical applications prepared by surface modification using self-assembled monolayers and poly-Î³-glutamic acid. Dental Materials Journal, 2015, 34, 707-712.	1.8	8
67	TiO₂ microspheres containing magnetic nanoparticles for intraâ€arterial hyperthermia. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 2308-2314.	3.4	7
68	Structural effects of phosphate groups on apatite formation in a copolymer modified with Ca²⁺ in a simulated body fluid. Journal of Materials Chemistry B, 2018, 6, 174-182.	5.8	7
69	Preparation of bioactive and antibacterial PMMA-based bone cement by modification with quaternary ammonium and alkoxysilane. Journal of Biomaterials Applications, 2021, 36, 311-320.	2.4	7
70	COMPARISON OF ADSORPTION BEHAVIOR OF BOVINE SERUM ALBUMIN AND OSTEOPONTIN ON HYDROXYAPATITE AND ALUMINA. Phosphorus Research Bulletin, 2012, 26, 23-28.	0.6	7
71	Organic-Inorganic Composites Toward Biomaterial Application. Frontiers of Oral Biology, 2015, 17, 33-38.	1.5	7
72	Preparation and in vitro apatite-forming ability of porous and non-porous titania microspheres. Journal of the Ceramic Society of Japan, 2013, 121, 782-787.	1.1	6

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73	Characterization and degradation study of chitosan-siloxane hybrid microspheres synthesized using a microfluidic approach. Materials Science and Engineering C, 2017, 81, 571-579.	7.3	6
74	Effect of Calcium Acetate Content on Apatite-Forming Ability and Mechanical Property of PMMA Bone Cement Modified with Quaternary Ammonium. Materials, 2020, 13, 4998.	2.9	6
75	Factors governing the fluorination of hydroxyapatite by an ionic liquid. Ceramics International, 2021, 47, 16225-16231.	4.8	6
76	Control of the Microstructure of Porous Tricalcium Phosphate: Effects of addition of Mg, Zn and Fe. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2005, 52, 356-359.	0.2	6
77	Effect of sodium tungstate on anaerobic digestion of waste sewage sludge: Enhanced methane production via increased acetoclastic methanogens. Journal of Environmental Chemical Engineering, 2022, 10, 107524.	6.7	6
78	Effect of pulse current on structure and adhesion of apatite electrochemically deposited onto titanium substrates. Journal of Materials Research, 2008, 23, 3176-3183.	2.6	5
79	Effect of ammonia or nitric acid treatment on surface structure, in vitro apatite formation, and visible-light photocatalytic activity of bioactive titanium metal. Colloids and Surfaces B: Biointerfaces, 2013, 111, 503-508.	5.0	5
80	Apatite mineralization behavior on polyglutamic acid hydrogels in aqueous condition: Effects of molecular weight. Bio-Medical Materials and Engineering, 2013, 23, 339-347.	0.6	5
81	Bioactive polymethylmethacrylate bone cement modified with combinations of phosphate group-containing monomers and calcium acetate. Journal of Biomaterials Applications, 2015, 29, 1296-1303.	2.4	5
82	Setting behavior, apatite-forming ability, mechanical strength of polymethylmethacrylate bone cement through bioactivity modification of phosphate functional groups combined with Ca²⁺ ions. Journal of Biomaterials Science, Polymer Edition, 2020, 31, 2128-2151.	3.5	5
83	Mechanical Properties of .BETA.-Tricalcium Phosphate/Polylactic Acid Composites Prepared through Ball-Milling. Journal of the Ceramic Society of Japan, 2006, 114, 332-335.	1.3	4
84	Hydroxyapatite-Forming Ability and Mechanical Properties of Organic-Inorganic Hybrids Reinforced by Calcium Phosphates. Journal of the Ceramic Society of Japan, 2006, 114, 692-696.	1.3	4
85	Apatite-Forming Ability of Polyglutamic Acid Gel in Simulated Body Fluid: Effect of Cross-Linking Agent. Key Engineering Materials, 2007, 330-332, 683-686.	0.4	4
86	Bisphosphonate release profiles from magnetite microspheres. Journal of Biomaterials Applications, 2014, 29, 543-547.	2.4	4
87	Biomineralization behavior of a vinylphosphonic acid-based copolymer added with polymerization accelerator in simulated body fluid. Journal of Asian Ceramic Societies, 2015, 3, 407-411.	2.3	4
88	Apatite-forming ability of vinylphosphonic acid-based copolymer in simulated body fluid: effects of phosphate group content. Journal of Materials Science: Materials in Medicine, 2016, 27, 152.	3.6	4
89	Apatite formation on a hydrogel containing sulfinic acid group under physiological conditions. , 2017, 105, 1924-1929.		4
90	Synthesis and in vitro biodegradation of pure octacalcium phosphate spheres. International Journal of Applied Ceramic Technology, 2020, 17, 372-379.	2.1	4

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91	Structural control of magnetite nanoparticles for hyperthermia by modification with organic polymers: effect of molecular weight. RSC Advances, 2020, 10, 26374-26380.	3.6	4
92	Mechanical Properties and Cyclic Fatigue of the Newly Developed Ceramic Material for Artificial Joints. Journal of the Ceramic Society of Japan, 2007, 115, 466-470.	1.1	3
93	The Investigation of Bioactivity and Mechanical Properties of Glass Ionomer Cements Prepared from Al2O3-SiO2Glass and Poly(Î³-glutamic acid). Journal of Nanomaterials, 2013, 2013, 1-6.	2.7	3
94	Cytocompatible and Antibacterial Properties of Chitosan-Siloxane Hybrid Spheres. Polymers, 2019, 11, 1676.	4.5	3
95	Relationship between valence of titania and apatite mineralization behavior in simulated body environment. Journal of the American Ceramic Society, 2021, 104, 3545-3553.	3.8	3
96	Apatite Deposition on Organic-inorganic Hybrids Prepared from Chitin by Modification with Alkoxysilane and Calcium Salt. Key Engineering Materials, 2003, 254-256, 545-548.	0.4	2
97	Apatite Deposition on Polyamide Film Containing Silanol Groups in Simulated Body Environment. Key Engineering Materials, 2005, 284-286, 505-508.	0.4	2
98	Acceleration of calcium phosphate formation on bioactive PMMA-based bone cement by controlling spatial design. Materials Science and Engineering C, 2010, 30, 624-630.	7.3	2
99	Organic modification of magnetite nanoparticles for biomedical applications. , 2021, , 77-82.		2
100	Ceramic-Polymer Composites for Biomedical Applications. , 2015, , 1-12.		2
101	PREPARATION AND CHARACTERISTICS OF CELLULOSE-HYDROXYAPATITE COMPOSITES THROUGH MECHANOCHEMICAL REACTION. Phosphorus Research Bulletin, 2004, 17, 197-202.	0.6	1
102	DESIGN OF A NOVEL BIOACTIVE CALCIUM PHOSPHATE PASTE CONTAINING ACETYL CELLULOSE. Phosphorus Research Bulletin, 2004, 17, 203-208.	0.6	1
103	Apatite-forming ability of organic-inorganic hybrids fabricated from glucomannan by chemical modification with alkoxysilane and calcium salt. Journal of the Ceramic Society of Japan, 2008, 116, 46-49.	1.1	1
104	Apatite Deposition on Hyaluronic Acid Gels in Biomimetic Conditions. Transactions of the Materials Research Society of Japan, 2009, 34, 85-87.	0.2	1
105	Ceramic-Polymer Composites for Biomedical Applications. , 2016, , 287-300.		1
106	Bioactive Glass-Ceramics. , 2017, , 213-237.		1
107	Effect of metallographic structure and machining process on the apatite-forming ability of sodium hydroxide- and heat-treatedÂtitanium. Bio-Medical Materials and Engineering, 2017, 29, 109-118.	0.6	1
108	Microparticles Preparation Using Water-in-Oil Emulsion. , 2018, , 453-481.		1

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109	Compositional dependence of the apatite formation ability of Tiâ€“Zr alloys designed for hard tissue reconstruction. Journal of Materials Science: Materials in Medicine, 2020, 31, 110.	3.6	1
110	Spontaneous fabrication of octacalcium phosphate: synthesis conditions and basic characterizations. Bulletin of Materials Science, 2021, 44, 1.	1.7	1
111	Development of Bioactive Organicâ€“Inorganic Hybrids Through Solâ€“Gel Processing. , 2009, , 769-793.		1
112	DESIGN OF BONE-BONDING ORGANIC-INORGANIC HYBRIDS. Phosphorus Research Bulletin, 2004, 17, 59-66.	0.6	0
113	Comparison of Apatite Formation on Polyamide Films Containing Carboxyl and Sulfonic Groups in a Solution Mimicking Body Fluid. Key Engineering Materials, 2006, 309-311, 477-480.	0.4	0
114	Design of Bioactive Nano-Hybrids for Bone Tissue Regeneration. , 0, , 339-366.		0
115	Fabrication and properties of alginate/calcium phosphate hybrid beads: A comparative study. Bio-Medical Materials and Engineering, 2021, 32, 15-27.	0.6	0
116	Release Profiles of Dyes and Proteins from Calcium Phosphate Microspheres with Different Crystalline Phases. Ceramics, 2021, 4, 291-301.	2.6	0
117	Properties of Bone-bonding PMMA Cement. Proceedings of the 1992 Annual Meeting of JSME/MMD, 2002, 2002, 5-6.	0.0	0
118	Mechanical properties of PMMA-based bone cement with enhanced biological compatibility via a chemical modification. Proceedings of the 1992 Annual Meeting of JSME/MMD, 2002, 2002, 435-436.	0.0	0
119	FABRICATION OF INORGANIC-ORGANIC HYBRIDS UTILIZING BIOMIMETIC PROCESS. Phosphorus Research Bulletin, 2006, 20, 79-88.	0.6	0
120	Microparticles Preparation Using Water-in-Oil Emulsion. , 2016, , 1-29.		0
121	Apatite formation on electrochemically modified surface of hafnium metal in simulated body environment. Journal of Asian Ceramic Societies, 2022, 10, 215-222.	2.3	0
122	Apatite Deposition on Organicâ€“Inorganic Hybrids Prepared from Hydroxyethylmethacrylate by Modification with Alkoxysilane and Calcium Salt in Body Environment. Ceramic Engineering and Science Proceedings, 0, , 797-804.	0.1	0
123	Fabrication of Composite for Bone Repairing fromÎ±-Tricalcium Phosphate and Hydroxypropylcellulose. , 0, , 215-220.		0
124	Apatite Formation on the Pmma Bone Cement Modified with Alkoxysilane and Calcium Salt in a Simulated Body Fluid. , 0, , 233-238.		0
125	Deposition of Bone-Like Apatite on Polyglutamic Acid Gels in Biomimetic Solution. , 0, , 151-158.		0
126	Apatite-Polyglutamic Acid Composites Prepared Through Biomimetic Process. Ceramic Engineering and Science Proceedings, 0, , 181-187.	0.1	0

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127	Enriched fluoridation of octacalcium phosphate by ionic liquid treatment. Materials Letters: X, 2022, 15, 100151.	0.7	0