Tomiharu Matsushita

List of Publications by Year
in descending order

29 papers	1,878 citations	331670 21 h-index	477307 29 g-index
29 all docs	29 docs citations	29 times ranked	2250 citing authors

#	Article	IF	Citations
1	Effect of pore size on bone ingrowth into porous titanium implants fabricated by additive manufacturing: An in vivo experiment. Materials Science and Engineering C, 2016, 59, 690-701.	7.3	629
2	Osteoinductive porous titanium implants: Effect of sodium removal by dilute HCl treatment. Biomaterials, 2006, 27, 2682-2691.	11.4	193
3	Positively charged bioactive Ti metal prepared by simple chemical and heat treatments. Journal of the Royal Society Interface, 2010, 7, S503-13.	3.4	106
4	A novel synthetic material for spinal fusion: a prospective clinical trial of porous bioactive titanium metal for lumbar interbody fusion. European Spine Journal, 2011, 20, 1486-1495.	2.2	88
5	Apatite-forming ability of titanium in terms of pH of the exposed solution. Journal of the Royal Society Interface, 2012, 9, 2145-2155.	3.4	79
6	Bioactivity of solâ€“gel-derived TiO2 coating on polyetheretherketone: In vitro and in vivo studies. Acta Biomaterialia, 2016, 35, 305-317.	8.3	68
7	Controlled release of strontium ions from a bioactive Ti metal with a Ca-enriched surface layer. Acta Biomaterialia, 2014, 10, 2282-2289.	8.3	63
8	Cross-sectional analysis of the surface ceramic layer developed on Ti metal by NaOH-heat treatment and soaking in SBF. Journal of the Ceramic Society of Japan, 2009, 117, 1126-1130.	1.1	61
9	Strontium and magnesium ions released from bioactive titanium metal promote early bone bonding in a rabbit implant model. Acta Biomaterialia, 2017, 63, 383-392.	8.3	58
10	Additive-manufactured patient-specific titanium templates for thoracic pedicle screw placement: novel design with reduced contact area. European Spine Journal, 2016, 25, 1698-1705.	2.2	57
11	Custom-made titanium devices as membranes for bone augmentation in implant treatment: Modeling accuracy of titanium products constructed with selective laser melting. Journal of Cranio-Maxillo-Facial Surgery, 2015, 43, 1289-1295.	1.7	52
12	Two-in-One Biointerfacesâ€”Antimicrobial and Bioactive Nanoporous Gallium Titanate Layers for Titanium Implants. Nanomaterials, 2017, 7, 229.	4.1	45
13	Osteoinduction on Acid and Heat Treated Porous Ti Metal Samples in Canine Muscle. PLoS ONE, 2014, 9, e88366.	2.5	42
14	Novel artificial hip joint: A layer of alumina on Tiâ€“6Alâ€“4V alloy formed by micro-arc oxidation. Materials Science and Engineering C, 2015, 55, 393-400.	7.3	41
15	Apatite formation on surface titanate layer with different Na content on Ti metal. Journal of the Ceramic Society of Japan, 2010, 118, 19-24.	1.1	39
16	Bioactive treatment promotes osteoblast differentiation on titanium materials fabricated by selective laser melting technology. Dental Materials Journal, 2016, 35, 118-125.	1.8	38
17	Preparation of bioactive Tiâ€“15Zrâ€“4Nbâ€“4Ta alloy from HCl and heat treatments after an NaOH treatment. Journal of Biomedical Materials Research - Part A, 2011, 97A, 135-144.	4.0	35
18	Bone-bonding properties of Ti metal subjected to acid and heat treatments. Journal of Materials Science: Materials in Medicine, 2012, 23, 2981-2992.	3.6	34

#	Article	IF	Citations
19	In vivo experimental study of anterior cervical fusion using bioactive polyetheretherketone in a canine model. PLoS ONE, 2017, 12, e0184495.	2.5	28
20	Fabrication of dense Î±-alumina layer on Ti-6Al-4V alloy hybrid for bearing surfaces of artificial hip joint. Materials Science and Engineering C, 2016, 69, 1229-1239.	7.3	25
21	Osteoconduction of porous Ti metal enhanced by acid and heat treatments. Journal of Materials Science: Materials in Medicine, 2013, 24, 1707-1715.	3.6	24
22	Evaluation of bioactivity of alkali- and heat-treated titanium using fluorescent mouse osteoblasts. Journal of Bone and Mineral Metabolism, 2014, 32, 660-670.	2.7	15
23	In vivo study of the early bone-bonding ability of Ti meshes formed with calcium titanate via chemical treatments. Journal of Materials Science: Materials in Medicine, 2015, 26, 271.	3.6	14
24	Mechanical, Histological, and Scanning Electron Microscopy Study of the Effect of Mixed-Acid and Heat Treatment on Additive-Manufactured Titanium Plates on Bonding to the Bone Surface. Materials, 2020, 13, 5104.	2.9	10
25	Bioactivation Treatment with Mixed Acid and Heat on Titanium Implants Fabricated by Selective Laser Melting Enhances Preosteoblast Cell Differentiation. Nanomaterials, 2021, 11, 987.	4.1	10
26	Histologic Evaluation of Bone Regeneration using Titanium Mesh Prepared by Selective Laser Melting Technique. Journal of Hard Tissue Biology, 2017, 26, 257-260.	0.4	7
27	Osteogenic capacity of mixed-acid and heat-treated titanium mesh prepared by a selective laser melting technique. RSC Advances, 2018, 8, 26069-26077.	3.6	7
28	Stand-Alone Anterior Cervical Discectomy and Fusion Using an Additive Manufactured Individualized Bioactive Porous Titanium Implant without Bone Graft: Results of a Prospective Clinical Trial. Asian Spine Journal, 2021, 15, 373-380.	2.0	5
29	Drug-Releasing Gelatin Coating Reinforced with Calcium Titanate Formed on Tiâ€“6Alâ€“4V Alloy Designed for Osteoporosis Bone Repair. Coatings, 2022, 12, 139.	2.6	5