

# Takayoshi Nakano

## List of Publications by Year in Descending Order

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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.

437 papers	7,023 citations	43 h-index	68 g-index
455 ext. papers	8,561 ext. citations	3.3 avg, IF	6.48 L-index

#	Paper	IF	Citations
437	Ibandronate Suppresses Changes in Apatite Orientation and Young's Modulus Caused by Estrogen Deficiency in Rat Vertebrae.. <i>Calcified Tissue International</i> , <b>2022</b> , 1	3.9	
436	Improvement of acid resistance of Zn-doped dentin by newly generated chemical bonds. <i>Materials and Design</i> , <b>2022</b> , 215, 110412	8.1	1
435	Structural Characterization of Ion Nitrided 316L Austenitic Stainless Steel: Influence of Treatment Temperature and Time. <i>Metals</i> , <b>2022</b> , 12, 306	2.3	0
434	Octacalcium phosphate crystals including a higher density dislocation improve its materials osteogenicity. <i>Applied Materials Today</i> , <b>2022</b> , 26, 101279	6.6	2
433	Combination treatment with ibandronate and eldecacitol prevents osteoporotic bone loss and deterioration of bone quality characterized by nano-arrangement of the collagen/apatite in an ovariectomized aged rat model.. <i>Bone</i> , <b>2022</b> , 157, 116309	4.7	1
432	Single crystalline-like crystallographic texture formation of pure tungsten through laser powder bed fusion. <i>Scripta Materialia</i> , <b>2022</b> , 206, 114252	5.6	8
431	Microstructure and mechanical properties of TiNbBeZr alloys with high strength and low elastic modulus. <i>Transactions of Nonferrous Metals Society of China</i> , <b>2022</b> , 32, 503-512	3.3	1
430	Microstructure, mechanical properties, and cytotoxicity of low Young's modulus TiNbBeSn alloys. <i>Journal of Materials Science</i> , <b>2022</b> , 57, 5634-5644	4.3	2
429	Evaluation of the Microstructural Characteristics of Bone Surrounding Anchor Screws Placed under a Horizontal Load by Exploring the Orientation of Biological Apatite Crystals and Collagen Fiber Anisotropy. <i>Journal of Hard Tissue Biology</i> , <b>2022</b> , 31, 79-86	0.4	
428	Interface characteristics and mechanical behavior of additively manufactured multi-material of stainless steel and Inconel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2022</b> , 847, 143318	5.3	2
427	Additive Manufacturing: Materials, Processing, Characterization and Applications. <i>Crystals</i> , <b>2022</b> , 12, 747	2.3	
426	Design and development of (Ti, Zr, Hf)-Al based medium entropy alloys and high entropy alloys. <i>Materials Chemistry and Physics</i> , <b>2021</b> , 276, 125409	4.4	2
425	Effect of a Helium Gas Atmosphere on the Mechanical Properties of Ti-6Al-4V Alloy built with Laser Powder Bed Fusion: A Comparative Study with Argon Gas. <i>Additive Manufacturing</i> , <b>2021</b> , 102444	6.1	5
424	Bone fragility via degradation of bone quality featured by collagen/apatite micro-arrangement in human rheumatic arthritis. <i>Bone</i> , <b>2021</b> , 155, 116261	4.7	3
423	Effect of Scan Length on Densification and Crystallographic Texture Formation of Pure Chromium Fabricated by Laser Powder Bed Fusion. <i>Crystals</i> , <b>2021</b> , 11, 9	2.3	8
422	Control of osteoblast arrangement by osteocyte mechanoreponse through prostaglandin E2 signaling under oscillatory fluid flow stimuli. <i>Biomaterials</i> , <b>2021</b> , 279, 121203	15.6	2
421	Influence of powder characteristics on densification via crystallographic texture formation: Pure tungsten prepared by laser powder bed fusion. <i>Additive Manufacturing Letters</i> , <b>2021</b> , 100016		3

420	Modified Cellular Automaton Simulation of Metal Additive Manufacturing. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , <b>2021</b> , 85, 103-109	0.4	
419	Re-Evaluation of Initial Bone Mineralization from an Engineering Perspective. <i>Tissue Engineering - Part B: Reviews</i> , <b>2021</b> ,	7.9	1
418	Development of TiNbTaZrMo bio-high entropy alloy (BioHEA) super-solid solution by selective laser melting, and its improved mechanical property and biocompatibility. <i>Scripta Materialia</i> , <b>2021</b> , 194, 113658	5.6	37
417	Structures and Dissolution Behaviors of Quaternary CaO-SrO-PO-TiO Glasses. <i>Materials</i> , <b>2021</b> , 14,	3.5	1
416	Design and development of TiZrHfNbTaMo high-entropy alloys for metallic biomaterials. <i>Materials and Design</i> , <b>2021</b> , 202, 109548	8.1	19
415	Surprising increase in yield stress of Mg single crystal using long-period stacking ordered nanoplates. <i>Acta Materialia</i> , <b>2021</b> , 209, 116797	8.4	17
414	Hypermineralization of Hearing-Related Bones by a Specific Osteoblast Subtype. <i>Journal of Bone and Mineral Research</i> , <b>2021</b> , 36, 1535-1547	6.3	3
413	Influence of Sintering Temperature on Mechanical Properties of Ti-Nb-Zr-Fe Alloys Prepared by Spark Plasma Sintering. <i>Journal of Materials Engineering and Performance</i> , <b>2021</b> , 30, 5719-5727	1.6	1
412	Quantitative Evaluation of Osteocyte Morphology and Bone Anisotropic Extracellular Matrix in Rat Femur. <i>Calcified Tissue International</i> , <b>2021</b> , 109, 434-444	3.9	11
411	Superior Alignment of Human iPSC-Osteoblasts Associated with Focal Adhesion Formation Stimulated by Oriented Collagen Scaffold. <i>International Journal of Molecular Sciences</i> , <b>2021</b> , 22,	6.3	1
410	Unique crystallographic texture formation in Inconel 718 by laser powder bed fusion and its effect on mechanical anisotropy. <i>Acta Materialia</i> , <b>2021</b> , 212, 116876	8.4	47
409	Low magnetic field promotes recombinant human BMP-2-induced bone formation and influences orientation of trabeculae and bone marrow-derived stromal cells. <i>Bone Reports</i> , <b>2021</b> , 14, 100757	2.6	1
408	Modified Cellular Automaton Simulation of Metal Additive Manufacturing. <i>Materials Transactions</i> , <b>2021</b> , 62, 864-870	1.3	0
407	Effect of Precursor Deficiency Induced Ca/P Ratio on Antibacterial and Osteoblast Adhesion Properties of Ag-Incorporated Hydroxyapatite: Reducing Ag Toxicity. <i>Materials</i> , <b>2021</b> , 14,	3.5	3
406	Inverse Columnar-Equiaxed Transition (CET) in 304 and 316L Stainless Steels Melt by Electron Beam for Additive Manufacturing (AM). <i>Crystals</i> , <b>2021</b> , 11, 856	2.3	4
405	Comparison of Phase Characteristics and Residual Stresses in Ti-6Al-4V Alloy Manufactured by Laser Powder Bed Fusion (L-PBF) and Electron Beam Powder Bed Fusion (EB-PBF) Techniques. <i>Crystals</i> , <b>2021</b> , 11, 796	2.3	4
404	Type I Angiotensin II Receptor Blockade Reduces Uremia-Induced Deterioration of Bone Material Properties. <i>Journal of Bone and Mineral Research</i> , <b>2021</b> , 36, 67-79	6.3	5
403	Development of orthophosphosilicate glass/poly(lactic acid) composite anisotropic scaffolds for simultaneous reconstruction of bone quality and quantity. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2021</b> , 109, 788-803	5.4	5

402	Micro/nanostructural Characteristic Changes in the Mandibles of Rats after Injection of Botulinum Neurotoxin. <i>Journal of Hard Tissue Biology</i> , <b>2021</b> , 30, 183-192	0.4	
401	Melting and Solidification Behavior of 316L Steel Induced by Electron-Beam Irradiation for Additive Manufacturing. <i>Journal of Smart Processing</i> , <b>2021</b> , 10, 208-213	0.2	0
400	Control of Microstructure in Ti-6Al-4V Porous Structure Fabricated by Electron Beam Powder Bed Fusion. <i>Journal of Smart Processing</i> , <b>2021</b> , 10, 246-250	0.2	
399	Impaired Alignment of Bone Matrix Microstructure Associated with Disorganized Osteoblast Arrangement in Malignant Melanoma Metastasis. <i>Biomolecules</i> , <b>2021</b> , 11,	5.9	1
398	Effect of Atmosphere Gas on Microstructure in Products of 316L Austenitic Stainless Steel Fabricated by Laser Powder Bed Fusion (LPBF). <i>Journal of Smart Processing</i> , <b>2021</b> , 10, 230-234	0.2	0
397	Nano-hydroxyapatite Coating Improves Bioactivity of Additively Manufactured Ti-6Al-4V Alloy Surface. <i>Journal of Smart Processing</i> , <b>2021</b> , 10, 251-255	0.2	
396	High Precision Manufacturing and Microstructure Control of Ti-6Al-4V Alloy through Electron Beam Melting. <i>Journal of Smart Processing</i> , <b>2021</b> , 10, 240-245	0.2	
395	Relationship between Residual Stress and Scan Strategy of Ti-15Mo-5Zr-3Al Alloy Parts Fabricated by Laser Powder Bed Fusion. <i>Journal of Smart Processing</i> , <b>2021</b> , 10, 235-239	0.2	
394	Fabrication of Copper Alloys as Conductive Materials via Laser Beam Powder Bed Fusion. <i>Journal of Smart Processing</i> , <b>2021</b> , 10, 265-269	0.2	0
393	Control of Stem Cell Fate and Function by Engineered Surface Topography Using Metal Additive Manufacturing Technology. <i>Journal of Smart Processing</i> , <b>2021</b> , 10, 261-264	0.2	0
392	Improvement of Mechanical Properties by Microstructural Evolution of Biomedical Co-Cr-Mo Alloys with the Addition of Mn and Si. <i>Materials Transactions</i> , <b>2021</b> , 62, 229-238	1.3	2
391	Antibacterial Cu-Doped Calcium Phosphate Coating on Pure Titanium. <i>Materials Transactions</i> , <b>2021</b> , 62, 1052-1055	1.3	0
390	Improving the Tensile Properties of Additively Manufactured Ti-6Al-4V Alloys via Microstructure Control Focusing on Cellular Precipitation Reaction. <i>Crystals</i> , <b>2021</b> , 11, 809	2.3	3
389	Development of Low-Yield Stress Co-Cr-Mo Alloy by Adding 6 Mass Pct Mn for Balloon-Expandable Stents. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2021</b> , 52, 4137-4145	2.3	1
388	Stability of crystallographic texture in laser powder bed fusion: Understanding the competition of crystal growth using a single crystalline seed. <i>Additive Manufacturing</i> , <b>2021</b> , 43, 102004	6.1	11
387	Reduction of Spatter Generation Using Atmospheric Gas in Laser Powder Bed Fusion of Ti-6Al-4V. <i>Materials Transactions</i> , <b>2021</b> , 62, 1225-1230	1.3	2
386	Orientation dependence of the wear resistance in the Co-Cr-Mo single crystal. <i>Wear</i> , <b>2021</b> , 478-479, 203758	3.5	4
385	Authors' Response to Letter from Professor Birkedal. <i>Calcified Tissue International</i> , <b>2021</b> , 1	3.9	2

384	3D Puzzle in Cube Pattern for Anisotropic/Isotropic Mechanical Control of Structure Fabricated by Metal Additive Manufacturing. <i>Crystals</i> , <b>2021</b> , 11, 959	2.3	8
383	Lattice distortion in selective laser melting (SLM)-manufactured unstable $\beta$ -type Ti-15Mo-5Zr-3Al alloy analyzed by high-precision X-ray diffractometry. <i>Scripta Materialia</i> , <b>2021</b> , 201, 113953	5.6	13
382	Crystallographic texture- and grain boundary density-independent improvement of corrosion resistance in austenitic 316L stainless steel fabricated via laser powder bed fusion. <i>Additive Manufacturing</i> , <b>2021</b> , 45, 102066	6.1	3
381	Control of Crystallographic Texture and Mechanical Properties of Hastelloy-X via Laser Powder Bed Fusion. <i>Crystals</i> , <b>2021</b> , 11, 1064	2.3	4
380	Comparison of microstructure, crystallographic texture, and mechanical properties in Ti-15Mo-5Zr-3Al alloys fabricated via electron and laser beam powder bed fusion technologies. <i>Additive Manufacturing</i> , <b>2021</b> , 102329	6.1	2
379	Structural characteristics of the bone surrounding dental implants placed into the tail-suspended mice. <i>International Journal of Implant Dentistry</i> , <b>2021</b> , 7, 89	2.8	1
378	In-air micro-proton-induced X-ray/gamma-ray emission analysis of the acid resistance of root dentin after applying fluoride-containing materials incorporating calcium. <i>Dental Materials Journal</i> , <b>2021</b> , 40, 1142-1150	2.5	0
377	Quantitative estimation of kink-band strengthening in an Mg <sub>2</sub> Ni single crystal with LPSO nanoplates. <i>Materials Research Letters</i> , <b>2021</b> , 9, 467-474	7.4	6
376	Fabrication of Ti-Alloy Powder/Solid Composite with Uniaxial Anisotropy by Introducing Unidirectional Honeycomb Structure via Electron Beam Powder Bed Fusion. <i>Crystals</i> , <b>2021</b> , 11, 1074	2.3	4
375	Factor which governs the feature of texture developed during additive manufacturing; clarified from the study on hexagonal C40-NbSi <sub>2</sub> . <i>Scripta Materialia</i> , <b>2021</b> , 203, 114111	5.6	9
374	Peculiar microstructural evolution and tensile properties of $\beta$ -containing TiAl alloys fabricated by electron beam melting. <i>Additive Manufacturing</i> , <b>2021</b> , 46, 102091	6.1	7
373	Surface residual stress and phase stability in unstable $\beta$ -type Ti-15Mo-5Zr-3Al alloy manufactured by laser and electron beam powder bed fusion technologies. <i>Additive Manufacturing</i> , <b>2021</b> , 47, 102257	6.1	5
372	Control of crystallographic orientation by metal additive manufacturing process of $\beta$ -type Ti alloys based on the bone tissue anisotropy. <i>MATEC Web of Conferences</i> , <b>2020</b> , 321, 05002	0.3	0
371	Low Young's Modulus and High Strength Obtained in Ti-Nb-Zr-Cr Alloys by Optimizing Zr Content. <i>Journal of Materials Engineering and Performance</i> , <b>2020</b> , 29, 2871-2878	1.6	6
370	Bone apatite anisotropic structure control designing fibrous scaffolds.. <i>RSC Advances</i> , <b>2020</b> , 10, 13500-13506	3.506	7
369	Osteocalcin is necessary for the alignment of apatite crystallites, but not glucose metabolism, testosterone synthesis, or muscle mass. <i>PLoS Genetics</i> , <b>2020</b> , 16, e1008586	6	58
368	Development of Ti <sub>40</sub> Zr <sub>40</sub> Ni <sub>20</sub> Al <sub>10</sub> high-entropy alloys with dual hexagonal-close-packed structure. <i>Scripta Materialia</i> , <b>2020</b> , 186, 242-246	5.6	12
367	Micro- and nano-bone analyses of the human mandible coronoid process and tendon-bone entheses. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2020</b> , 108, 2799-2806	3.5	2

- 366 Crystallographic Orientation Control of 316L Austenitic Stainless Steel via Selective Laser Melting. *ISIJ International*, **2020**, 60, 1758-1764 1.7 39
- 365 Liquid Phase Separation in Ag-Co-Cr-Fe-Mn-Ni, Co-Cr-Cu-Fe-Mn-Ni and Co-Cr-Cu-Fe-Mn-Ni-B High Entropy Alloys for Biomedical Application. *Crystals*, **2020**, 10, 527 2.3 6
- 364 Combined effect of teriparatide and an anti-RANKL monoclonal antibody on bone defect regeneration in mice with glucocorticoid-induced osteoporosis. *Bone*, **2020**, 139, 115525 4.7 3
- 363 Development of Co<sub>0.1</sub>Cr<sub>0.1</sub>Mo<sub>0.1</sub>Be<sub>0.1</sub>Mn<sub>0.1</sub>W<sub>0.1</sub>Ag High-Entropy Alloys Based on Co<sub>0.1</sub>Cr<sub>0.1</sub>Mo Alloys. *Materials Transactions*, **2020**, 61, 567-576 1.3 8
- 362 Titanium as an Instant Adhesive for Biological Soft Tissue. *Advanced Materials Interfaces*, **2020**, 7, 1902089 0.6 8
- 361 Loading Orientation Dependence of the Formation Behavior of Deformation Kink Bands in the Mg-Based Long-Period Stacking Ordered (LPSO) Phase. *Materials Transactions*, **2020**, 61, 821-827 1.3 2
- 360 3D Printing of Anisotropic Bone-Mimetic Structure with Controlled Fluid Flow Stimuli for Osteocytes: Flow Orientation Determines the Elongation of Dendrites. *International Journal of Bioprinting*, **2020**, 6, 293 6.2 8
- 359 Development and Perspectives of High Entropy alloys composed by light metal elements and that for metallic biomaterials with BCC. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2020**, 70, 14-23 0.3 1
- 358 Bone Functionalization Based on the Cellular Mechanisms Controlling the Ordered Arrangement of Cells and Bone Matrix Microstructure. *Materia Japan*, **2020**, 59, 594-599 0.1
- 357 Analysis of Bone Regeneration Based on the Relationship between the Orientations of Collagen and Apatite in Mouse Femur. *Materials Transactions*, **2020**, 61, 381-386 1.3 3
- 356 Promoting Effect of Basic Fibroblast Growth Factor in Synovial Mesenchymal Stem Cell-Based Cartilage Regeneration. *International Journal of Molecular Sciences*, **2020**, 22, 6.3 3
- 355 Effects of unloading by tail suspension on biological apatite crystallite alignment in mouse femur. *Dental Materials Journal*, **2020**, 39, 670-677 2.5 5
- 354 Improvement of High Temperature Fatigue Properties of TiAl Alloys Fabricated by Electron Beam Melting Through Hot Isostatic Pressing Process. *Journal of Smart Processing*, **2020**, 9, 180-184 0.2
- 353 Microstructure and Mechanical Behavior of Ti<sub>0.5</sub>Nb<sub>0.5</sub>Zr Alloy Prepared from Pre-Alloyed and Hydride-Mixed Elemental Powders. *Materials Transactions*, **2020**, 61, 562-566 1.3 0
- 352 3D Printing of Biomaterials for Control of Cellular Behaviors. *Journal of Smart Processing*, **2020**, 9, 164-168 0.2
- 351 Overexpression of Fam20C in osteoblast in vivo leads to increased cortical bone formation and osteoclastic bone resorption. *Bone*, **2020**, 138, 115414 4.7 3
- 350 Design and fabrication of Ti-Zr-Hf-Cr-Mo and Ti-Zr-Hf-Co-Cr-Mo high-entropy alloys as metallic biomaterials. *Materials Science and Engineering C*, **2020**, 107, 110322 8.3 58
- 349 ONO-1301 loaded nanocomposite scaffolds modulate cAMP mediated signaling and induce new bone formation in critical sized bone defect. *Biomaterials Science*, **2020**, 8, 884-896 7.4 5



348	Selective patterning of netrin-1 as a novel guiding cue for anisotropic dendrogenesis in osteocytes. <i>Materials Science and Engineering C</i> , <b>2020</b> , 108, 110391	8.3	9
347	Assessment of the functional efficacy of root canal treatment with high-frequency waves in rats. <i>PLoS ONE</i> , <b>2020</b> , 15, e0239660	3.7	1
346	Crystallographic orientation control of pure chromium via laser powder bed fusion and improved high temperature oxidation resistance. <i>Additive Manufacturing</i> , <b>2020</b> , 36, 101624	6.1	13
345	Gene Therapy Treats Bone Complications of Mucopolysaccharidosis Type II Mouse Models through Bone Remodeling Reactivation. <i>Molecular Therapy - Methods and Clinical Development</i> , <b>2020</b> , 19, 261-274	6.4	4
344	Using HAADF-STEM for atomic-scale evaluation of incorporation of antibacterial Ag atoms in a Eticalcium phosphate structure. <i>Nanoscale</i> , <b>2020</b> , 12, 16596-16604	7.7	4
343	Impaired bone quality characterized by apatite orientation under stress shielding following fixing of a fracture of the radius with a 3D printed Ti-6Al-4V custom-made bone plate in dogs. <i>PLoS ONE</i> , <b>2020</b> , 15, e0237678	3.7	5
342	A Novel Role of Interleukin-6 as a Regulatory Factor of Inflammation-Associated Deterioration in Osteoblast Arrangement. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	7
341	Microstructure, Mechanical Properties, and Springback of Ti-Nb Alloys Modified by Mo Addition. <i>Journal of Materials Engineering and Performance</i> , <b>2020</b> , 29, 5366-5373	1.6	1
340	The combined effects of teriparatide and anti-RANKL monoclonal antibody on bone defect regeneration in ovariectomized mice. <i>Bone</i> , <b>2020</b> , 130, 115077	4.7	4
339	Osteocalcin is necessary for the alignment of apatite crystallites, but not glucose metabolism, testosterone synthesis, or muscle mass <b>2020</b> , 16, e1008586		
338	Osteocalcin is necessary for the alignment of apatite crystallites, but not glucose metabolism, testosterone synthesis, or muscle mass <b>2020</b> , 16, e1008586		
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334	Osteocalcin is necessary for the alignment of apatite crystallites, but not glucose metabolism, testosterone synthesis, or muscle mass <b>2020</b> , 16, e1008586		
333	Impaired bone quality characterized by apatite orientation under stress shielding following fixing of a fracture of the radius with a 3D printed Ti-6Al-4V custom-made bone plate in dogs <b>2020</b> , 15, e0237678		
332	Impaired bone quality characterized by apatite orientation under stress shielding following fixing of a fracture of the radius with a 3D printed Ti-6Al-4V custom-made bone plate in dogs <b>2020</b> , 15, e0237678		
331	Impaired bone quality characterized by apatite orientation under stress shielding following fixing of a fracture of the radius with a 3D printed Ti-6Al-4V custom-made bone plate in dogs <b>2020</b> , 15, e0237678		

- 330 Impaired bone quality characterized by apatite orientation under stress shielding following fixing of a fracture of the radius with a 3D printed Ti-6Al-4V custom-made bone plate in dogs **2020**, 15, e0237678
- 329 Assessment of the functional efficacy of root canal treatment with high-frequency waves in rats **2020**, 15, e0239660
- 328 Assessment of the functional efficacy of root canal treatment with high-frequency waves in rats **2020**, 15, e0239660
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- 324 Assessment of the functional efficacy of root canal treatment with high-frequency waves in rats **2020**, 15, e0239660
- 323 Crystallographic Texture Formation of Pure Tantalum by Selective Laser Melting Method. *Journal of Smart Processing*, **2019**, 8, 151-154 0.2 3
- 322 Overcoming the strength-ductility trade-off by the combination of static recrystallization and low-temperature heat-treatment in Co-Cr-W-Ni alloy for stent application. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 766, 138400 5.3 11
- 321 Development of bifunctional oriented bioactive glass/poly(lactic acid) composite scaffolds to control osteoblast alignment and proliferation. *Journal of Biomedical Materials Research - Part A*, **2019**, 107, 1031-1041 5.4 16
- 320 Biomimetic mineralization using matrix vesicle nanofragments. *Journal of Biomedical Materials Research - Part A*, **2019**, 107, 1021-1030 5.4 12
- 319 Physical and mechanical properties of metallic biomaterials **2019**, 97-129
- 318 Quantitative ultrasound (QUS) axial transmission method reflects anisotropy in micro-arrangement of apatite crystallites in human long bones: A study with 3-MHz-frequency ultrasound. *Bone*, **2019**, 127, 82-90 4.7 11
- 317 Effect of Oxygen Concentration on the Generation of Spatter during Fabrication via Selective Laser Melting. *Journal of Smart Processing*, **2019**, 8, 102-105 0.2 2
- 316 Solidification Microstructures of the Ingots Obtained by Arc Melting and Cold Crucible Levitation Melting in TiNbTaZr Medium-Entropy Alloy and TiNbTaZrX (X = V, Mo, W) High-Entropy Alloys. *Entropy*, **2019**, 21, 2.8 29
- 315 Unique arrangement of bone matrix orthogonal to osteoblast alignment controlled by Tspan11-mediated focal adhesion assembly. *Biomaterials*, **2019**, 209, 103-110 15.6 30
- 314 Oriented siloxane-containing vaterite/poly(lactic acid) composite scaffolds for controlling osteoblast alignment and proliferation. *Journal of Asian Ceramic Societies*, **2019**, 7, 228-237 2.4 2
- 313 Development of low-Young's modulus TiNb-based alloys with Cr addition. *Journal of Materials Science*, **2019**, 54, 8675-8683 4.3 16



312	Additive manufacturing of dense components in beta-titanium alloys with crystallographic texture from a mixture of pure metallic element powders. <i>Materials and Design</i> , <b>2019</b> , 173, 107771	8.1	54
311	Radiation-resistant properties of cross-linking PTFE for medical use. <i>Polymer Bulletin</i> , <b>2019</b> , 76, 6111-6122	0	
310	Effect of Nb Content on Microstructures and Mechanical Properties of Ti-xNb-2Fe Alloys. <i>Journal of Materials Engineering and Performance</i> , <b>2019</b> , 28, 5501-5508	1.6	9
309	Strengthening of Mg-based long-period stacking ordered (LPSO) phase with deformation kink bands. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2019</b> , 763, 138163	5.3	33
308	Preparation of Titanium Alloy/Bioactive Glass Composite for Biomedical Applications via Selective Laser Melting. <i>Materials Transactions</i> , <b>2019</b> , 60, 1779-1784	1.3	3
307	Enhancement of plastic anisotropy and drastic increase in yield stress of Mg-Li single crystals by Al-addition followed by quenching. <i>Scripta Materialia</i> , <b>2019</b> , 172, 93-97	5.6	9
306	Development of non-equiatomic Ti-Nb-Ta-Zr-Mo high-entropy alloys for metallic biomaterials. <i>Scripta Materialia</i> , <b>2019</b> , 172, 83-87	5.6	65
305	Diffusionless isothermal omega transformation in titanium alloys driven by quenched-in compositional fluctuations. <i>Physical Review Materials</i> , <b>2019</b> , 3,	3.2	7
304	Additive Manufacturing of Titanium and Titanium-based Alloys. <i>Materia Japan</i> , <b>2019</b> , 58, 181-187	0.1	6
303	Quantitative and Qualitative Relationship between Microstructural Factors and Fatigue Lives under Load- and Strain-Controlled Conditions of Ti <sub>5</sub> Al <sub>2</sub> Sn <sub>2</sub> Zr <sub>2</sub> Cr <sub>2</sub> Mo (Ti-17) Fabricated Using a 1500-ton Forging Simulator. <i>Materials Transactions</i> , <b>2019</b> , 60, 1740-1748	1.3	4
302	Microstructure and Mechanical Properties of TiAl Alloys Prepared by Additive Manufacturing. <i>Journal of Smart Processing</i> , <b>2019</b> , 8, 78-83	0.2	1
301	Control of Anisotropic Texture for Improving Creep Property of Nickel Based Superalloy Fabricated by Metal Additive Manufacturing. <i>Journal of Smart Processing</i> , <b>2019</b> , 8, 106-111	0.2	
300	Micro- and Nanostructural Characteristics of Rat Masseter Muscle Entheses. <i>Journal of Hard Tissue Biology</i> , <b>2019</b> , 28, 365-370	0.4	2
299	Forefront in Biomedical Materials. <i>Zairyo/Journal of the Society of Materials Science, Japan</i> , <b>2019</b> , 68, 798-803	0.1	
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297	Low Springback and Low Young's Modulus in Ti <sub>5</sub> Nb <sub>1</sub> 3Ta <sub>0.6</sub> Zr Alloy Modified by Mo Addition. <i>Materials Transactions</i> , <b>2019</b> , 60, 1755-1762	1.3	3
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293	Effects of Autogenous Bone Graft on Mass and Quality of Trabecular Bone in TiBAlV Spinal Cage Fabricated with Electron Beam Melting. <i>Materials Transactions</i> , <b>2019</b> , 60, 144-148	1.3	1
292	Osteoporosis Changes Collagen/Apatite Orientation and Young's Modulus in Vertebral Cortical Bone of Rat. <i>Calcified Tissue International</i> , <b>2019</b> , 104, 449-460	3.9	22
291	Beta titanium single crystal with bone-like elastic modulus and large crystallographic elastic anisotropy. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 782, 667-671	5.7	16
290	Synchronous improvement in strength and ductility of biomedical CoCrMo alloys by unique low-temperature heat treatment. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2019</b> , 739, 53-61	5.3	12
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288	Study on bone quality in the human mandible-Alignment of biological apatite crystallites. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2019</b> , 107, 838-846	3.5	4
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279	Plastic deformation mechanisms of biomedical CoCrMo alloy single crystals with hexagonal close-packed structure. <i>Scripta Materialia</i> , <b>2018</b> , 142, 111-115	5.6	18
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277	Dual release of growth factor from nanocomposite fibrous scaffold promotes vascularisation and bone regeneration in rat critical sized calvarial defect. <i>Acta Biomaterialia</i> , <b>2018</b> , 78, 36-47	10.8	51

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168	Degradation behavior of Ca-Mg-Zn intermetallic compounds for use as biodegradable implant materials. <i>Materials Science and Engineering C</i> , <b>2014</b> , 44, 285-92	8.3	13
167	Control of Mechanical Properties of Three-Dimensional Ti-6Al-4V Products Fabricated by Electron Beam Melting with Unidirectional Elongated Pores. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2014</b> , 45, 4293-4301	2.3	26
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157	Possibility of Mg- and Ca-based intermetallic compounds as new biodegradable implant materials. <i>Materials Science and Engineering C</i> , <b>2013</b> , 33, 4101-11	8.3	25
156	Advanced Analysis and Control of Bone Microstructure Based on a Materials Scientific Study Including Microbeam X-ray Diffraction <b>2013</b> , 155-167		4
155	Long-period ordered superstructures that appear in an (Al,Ga)-rich (Al,Ga)Ti system. <i>Philosophical Magazine</i> , <b>2013</b> , 93, 22-37	1.6	
154	Formation of c-axis-oriented columnar structures through controlled epitaxial growth of hydroxyapatitePeer review under responsibility of The Ceramic Society of Japan and the Korean Ceramic Society.View all notes. <i>Journal of Asian Ceramic Societies</i> , <b>2013</b> , 1, 143-148	2.4	13
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152	Individual mechanical properties of ferrite and martensite in Fe-0.16mass% C-0.0mass% Si-0.5mass% Mn steel. <i>Journal of Alloys and Compounds</i> , <b>2013</b> , 577, S593-S596	5.7	18
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149	$\beta$ -Transformation in cold-worked TiNbTaZrD alloys with low body-centered cubic phase stability and its correlation with their elastic properties. <i>Acta Materialia</i> , <b>2013</b> , 61, 139-150	8.4	68
148	Design and optimization of the oriented groove on the hip implant surface to promote bone microstructure integrity. <i>Bone</i> , <b>2013</b> , 52, 659-67	4.7	69
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37	Unique alignment and texture of biological apatite crystallites in typical calcified tissues analyzed by microbeam X-ray diffractometer system. <i>Bone</i> , <b>2002</b> , 31, 479-87	4.7	295
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30	Anomalous Strengthening Mechanism in NbSi <sub>2</sub> -Based Silicide Single Crystals. <i>Materials Research Society Symposia Proceedings</i> , <b>2000</b> , 646, 56		
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- 5 Classification of  $\alpha$  and  $\beta$  lamellar boundaries on the basis of continuity of strains and slip-twinning planes in fatigued TiAl polysynthetically twinned crystals 2
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- 3 Fabrication of Be-Ta Ti Alloys without Pre-Alloyed Powders via SLM. *Materials Science Forum*,1016, 1797-1801 0.4
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