Mitsuo Niinomi

List of Publications by Citations

358 papers	13,184 citations	46 h-index	110 g-index
368 ext. papers	14,520 ext. citations	2.4 avg, IF	7.1 L-index

#	Paper	IF	Citations
358	Mechanical properties of biomedical titanium alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1998**, 243, 231-236	5.3	1370
357	Recent metallic materials for biomedical applications. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2002**, 33, 477-486	2.3	994
356	Development of new metallic alloys for biomedical applications. *Acta Biomaterialia*, **2012**, 8, 3888-903	10.8	974
355	Design and mechanical properties of new β type titanium alloys for implant materials. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1998**, 243, 244-249	5.3	903
354	Mechanical biocompatibilities of titanium alloys for biomedical applications. *Journal of the Mechanical Behavior of Biomedical Materials*, **2008**, 1, 30-42	4.1	829
353	Recent research and development in titanium alloys for biomedical applications and healthcare goods. *Science and Technology of Advanced Materials*, **2003**, 4, 445-454	7.1	644
352	Biocompatibility of Ti-alloys for long-term implantation. *Journal of the Mechanical Behavior of Biomedical Materials*, **2013**, 20, 407-15	4.1	492
351	Fatigue performance and cyto-toxicity of low rigidity titanium alloy, Ti-29Nb-13Ta-4.6Zr. *Biomaterials*, **2003**, 24, 2673-83	15.6	434
350	Effects of Ta content on Young's modulus and tensile properties of binary Ti–Ta alloys for biomedical applications. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 371, 283-290	5.3	267
349	Development of Low Rigidity β-type Titanium Alloy for Biomedical Applications. *Materials Transactions*, **2002**, 43, 2970-2977	1.3	264
348	Metallic biomaterials. *Journal of Artificial Organs*, **2008**, 11, 105-10	1.8	204
347	Corrosion resistance and biocompatibility of Ti–Ta alloys for biomedical applications. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 398, 28-36	5.3	191
346	Biomedical titanium alloys with Young's moduli close to that of cortical bone. *International Journal of Energy Production and Management*, **2016**, 3, 173-85	5.3	159
345	Corrosion wear fracture of new β type biomedical titanium alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1999**, 263, 193-199	5.3	141
344	Beta type Ti-Mo alloys with changeable Young's modulus for spinal fixation applications. *Acta Biomaterialia*, **2012**, 8, 1990-7	10.8	133
343	Biologically and Mechanically Biocompatible Titanium Alloys. *Materials Transactions*, **2008**, 49, 2170-2178	1.3	128
342	Improvement in fatigue characteristics of newly developed beta type titanium alloy for biomedical applications by thermo-mechanical treatments. *Materials Science and Engineering C*, **2005**, 25, 248-254	8.3	128

341	Relationships between tensile deformation behavior and microstructure in Ti–Nb–Ta–Zr system alloys. *Materials Science and Engineering C*, **2005**, 25, 363-369	8.3	114
340	Ti–25Ta alloy with the best mechanical compatibility in Ti–Ta alloys for biomedical applications. *Materials Science and Engineering C*, **2009**, 29, 1061-1065	8.3	109
339	Self-adjustment of Young's modulus in biomedical titanium alloys during orthopaedic operation. *Materials Letters*, **2011**, 65, 688-690	3.3	105
338	Microstructures and mechanical properties of metastable Ti-30Zr-(Cr, Mo) alloys with changeable Young's modulus for spinal fixation applications. *Acta Biomaterialia*, **2011**, 7, 3230-6	10.8	105
337	Decomposition of martensite α during aging treatments and resulting mechanical properties of Ti–Ta alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 384, 92-101	5.3	94
336	Optimization of Cr content of metastable β-type Ti-Cr alloys with changeable Young's modulus for spinal fixation applications. *Acta Biomaterialia*, **2012**, 8, 2392-400	10.8	90
335	Development of high Zr-containing Ti-based alloys with low Young's modulus for use in removable implants. *Materials Science and Engineering C*, **2011**, 31, 1436-1444	8.3	88
334	Nanotube oxide coating on Ti–29Nb–13Ta–4.6Zr alloy prepared by self-organizing anodization. *Electrochimica Acta*, **2006**, 52, 94-101	6.7	88
333	Microstructures and mechanical properties of Ti–50mass% Ta alloy for biomedical applications. *Journal of Alloys and Compounds*, **2008**, 466, 535-542	5.7	81
332	Tensile Deformation Behavior of Ti-Nb-Ta-Zr Biomedical Alloys. *Materials Transactions*, **2004**, 45, 1113-1119	1.9	77
331	Improvement in Fatigue Strength of Biomedical β-type Ti–Nb–Ta–Zr Alloy While Maintaining Low Young's Modulus Through Optimizing α-Phase Precipitation. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2012**, 43, 294-302	2.3	73
330	Aging behavior of the Ti-29Nb-13Ta-4.6Zr new beta alloy for medical implants. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2002**, 33, 487-493	2.3	66
329	Effect of Zr on super-elasticity and mechanical properties of Ti–24at% Nb–(0, 2, 4)at% Zr alloy subjected to aging treatment. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 536, 197-206	5.3	64
328	Bioactive calcium phosphate invert glass-ceramic coating on beta-type Ti-29Nb-13Ta-4.6Zr alloy. *Biomaterials*, **2003**, 24, 283-90	15.6	64
327	Effects of microstructure on the short fatigue crack initiation and propagation characteristics of biomedical β-titanium alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2000**, 31, 1949-1958	2.3	63
326	Microstructures, mechanical properties and cytotoxicity of low cost beta Ti-Mn alloys for biomedical applications. *Acta Biomaterialia*, **2015**, 26, 366-76	10.8	61
325	Fracture characteristics of fatigued Ti–6Al–4V ELI as an implant material. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1998**, 243, 237-243	5.3	60
324	Fully Depleted Ti-Nb-Ta-Zr-O Nanotubes: Interfacial Charge Dynamics and Solar Hydrogen Production. *ACS Applied Materials & Interfaces*, **2018**, 10, 22997-23008	9.5	59

323	Effect of Oxygen Content on Microstructure and Mechanical Properties of Biomedical Ti-29Nb-13Ta-4.6Zr Alloy under Solutionized and Aged Conditions. *Materials Transactions*, **2009**, 50, 2716-2720	1.3	57
322	Apatite Formation on Calcium Phosphate Invert Glasses in Simulated Body Fluid. *Journal of the American Ceramic Society*, **2004**, 84, 450-52	3.8	56
321	Alloying titanium and tantalum by cold crucible levitation melting (CCLM) furnace. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2000**, 280, 208-213	5.3	55
320	Mechanical characteristics and microstructure of drawn wire of Ti–29Nb–13Ta–4.6Zr for biomedical applications. *Materials Science and Engineering C*, **2007**, 27, 154-161	8.3	54
319	Changeable Young's modulus with large elongation-to-failure in β-type titanium alloys for spinal fixation applications. *Scripta Materialia*, **2014**, 82, 29-32	5.6	53
318	Micro-arc oxidation treatment to improve the hard-tissue compatibility of Ti–29Nb–13Ta–4.6Zr alloy. *Applied Surface Science*, **2012**, 262, 34-38	6.7	53
317	Effect of Ta content on mechanical properties of Ti–30Nb–XTa–5Zr. *Materials Science and Engineering C*, **2005**, 25, 370-376	8.3	52
316	Recent titanium R&D for biomedical applications in japan. *Jom*, **1999**, 51, 32-34	2.1	52
315	Surface hardening of biomedical Ti–29Nb–13Ta–4.6Zr and Ti–6Al–4V ELI by gas nitriding. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 486, 193-201	5.3	49
314	Fabrication of low-cost beta-type Ti-Mn alloys for biomedical applications by metal injection molding process and their mechanical properties. *Journal of the Mechanical Behavior of Biomedical Materials*, **2016**, 59, 497-507	4.1	47
313	Japanese research and development on metallic biomedical, dental, and healthcare materials. *Jom*, **2005**, 57, 18-24	2.1	47
312	Deformation-induced ω phase in modified Ti-29Nb-13Ta-4.6Zr alloy by Cr addition. *Acta Biomaterialia*, **2013**, 9, 8027-35	10.8	45
311	Heterogeneous structure and mechanical hardness of biomedical β-type Ti-29Nb-13Ta-4.6Zr subjected to high-pressure torsion. *Journal of the Mechanical Behavior of Biomedical Materials*, **2012**, 10, 235-45	4.1	44
310	Mechanical properties and cyto-toxicity of new beta type titanium alloy with low melting points for dental applications. *Materials Science and Engineering C*, **2005**, 25, 417-425	8.3	44
309	Athermal and deformation-induced ω phase transformations in biomedical beta-type alloy Ti–9Cr–0.2O. *Acta Materialia*, **2016**, 106, 162-170	8.4	43
308	Influence of oxygen on omega phase stability in the Ti-29Nb-13Ta-4.6Zr alloy. *Scripta Materialia*, **2016**, 123, 144-148	5.6	43
307	Fatigue, Fretting Fatigue and Corrosion Characteristics of Biocompatible Beta Type Titanium Alloy Conducted with Various Thermo-Mechanical Treatments. *Materials Transactions*, **2004**, 45, 1540-1548	1.3	42
306	Deformation-induced changeable Young's modulus with high strength in β-type Ti-Cr-O alloys for spinal fixture. *Journal of the Mechanical Behavior of Biomedical Materials*, **2014**, 30, 205-13	4.1	41

305	Predominant factor determining wear properties of β-type and (α+β)-type titanium alloys in metal-to-metal contact for biomedical applications. *Journal of the Mechanical Behavior of Biomedical Materials*, **2015**, 41, 208-20	4.1	40
304	Mechanical properties and microstructures of low cost β-titanium alloys for healthcare applications. *Materials Science and Engineering C*, **2005**, 25, 304-311	8.3	40
303	Calcium phosphate invert glass-ceramic coatings joined by self-development of compositionally gradient layers on a titanium alloy. *Biomaterials*, **2001**, 22, 577-82	15.6	40
302	Development of thermo-mechanical processing for fabricating highly durable β-type Ti-Nb-Ta-Zr rod for use in spinal fixation devices. *Journal of the Mechanical Behavior of Biomedical Materials*, **2012**, 9, 207-16	4.1	39
301	In situ X-ray analysis of mechanism of nonlinear super elastic behavior of TiNbTaZr system beta-type titanium alloy for biomedical applications. *Materials Science and Engineering C*, **2008**, 28, 406-413	8.3	39
300	Changes in mechanical properties of Ti alloys in relation to alloying additions of Ta and Hf. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2008**, 483-484, 153-156	5.3	39
299	Isothermal Aging Behavior of Beta Titanium–Manganese Alloys. *Materials Transactions*, **2009** , 50, 2737-2743	1.3	38
298	Design and development of metallic biomaterials with biological and mechanical biocompatibility. *Journal of Biomedical Materials Research - Part A*, **2019**, 107, 944-954	5.4	37
297	β-Type titanium alloys for spinal fixation surgery with high Young's modulus variability and good mechanical properties. *Acta Biomaterialia*, **2015**, 24, 361-9	10.8	37
296	Mechanical properties and cytocompatibility of oxygen-modified β-type Ti-Cr alloys for spinal fixation devices. *Acta Biomaterialia*, **2015**, 12, 352-361	10.8	37
295	Improvement of microstructure, mechanical and corrosion properties of biomedical Ti-Mn alloys by Mo addition. *Materials and Design*, **2016**, 110, 414-424	8.1	37
294	Titanium Alloys for Biomedical Applications. *Springer Series in Biomaterials Science and Engineering*, **2015**, 179-213	0.6	36
293	Effect of Nb on Microstructural Characteristics of Ti-Nb-Ta-Zr Alloy for Biomedical Applications. *Materials Transactions*, **2002**, 43, 2964-2969	1.3	36
292	Improvement in mechanical strength of low-cost β-type TiMn alloys fabricated by metal injection molding through cold rolling. *Journal of Alloys and Compounds*, **2016**, 664, 272-283	5.7	34
291	Improved fatigue properties with maintaining low Young's modulus achieved in biomedical beta-type titanium alloy by oxygen addition. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 704, 10-17	5.3	34
290	Relationship between various deformation-induced products and mechanical properties in metastable Ti-30Zr-Mo alloys for biomedical applications. *Journal of the Mechanical Behavior of Biomedical Materials*, **2011**, 4, 2009-16	4.1	32
289	Toughness and Strength of Microstructurally Controlled Titanium Alloys.. *ISIJ International*, **1991**, 31, 848-855	1.7	28
288	Inhibited grain growth in hydroxyapatite–graphene nanocomposites during high temperature treatment and their enhanced mechanical properties. *Ceramics International*, **2016**, 42, 11248-11255	5.1	28

287	Effect of Deformation-Induced ω Phase on the Mechanical Properties of Metastable β-Type Ti–V Alloys. *Materials Transactions*, **2012**, 53, 1379-1384	1.3	27
286	Anomalous Thermal Expansion of Cold-Rolled Ti-Nb-Ta-Zr Alloy. *Materials Transactions*, **2009**, 50, 423-426	1.3	27
285	Effects of Thermomechanical Processings on Fatigue Properties of Ti-29Nb-13Ta-4.6Zr for Biomedical Applications. *Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals*, **2003**, 67, 652-660	0.4	27
284	Improvement in fatigue strength while keeping low Young's modulus of a type titanium alloy through yttrium oxide dispersion. *Materials Science and Engineering C*, **2012**, 32, 542-549	8.3	25
283	An investigation of the effect of fatigue deformation on the residual mechanical properties of Ti-6Al-4V ELI. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2000**, 31, 1937-1948	2.3	25
282	The plasma electrolytic oxidation (PEO) coatings to enhance in-vitro corrosion resistance of Ti29Nb13Ta4.6Zr alloys: The combined effect of duty cycle and the deposition frequency. *Surface and Coatings Technology*, **2019**, 374, 345-354	4.4	24
281	Dynamic Young's Modulus and Mechanical Properties of Ti−Hf Alloys. *Materials Transactions*, **2004**, 45, 1549-1554	1.3	24
280	Relationship between fracture toughness and microstructure of Ti6Al2Sn4Zr2Mo alloy reinforced with TiB particles. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1999**, 263, 319-325	5.3	24
279	Fracture characteristics and microstructural factors in single and duplex annealed Ti4.5Al3V2Mo2Fe. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 308, 216-224	5.3	23
278	Effect of terminal functional groups of silane layers on adhesive strength between biomedical Ti-29Nb-13Ta-4.6Zr alloy and segment polyurethanes. *Surface and Coatings Technology*, **2012**, 206, 3137-3141	4.4	22
277	Creation of Functionality by Ubiquitous Elements in Titanium Alloys. *Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals*, **2011**, 75, 21-28	0.4	21
276	Improvements in the Superelasticity and Change in Deformation Mode of Type TiNb24Zr2 Alloys Caused by Aging Treatments. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2011**, 42, 2843-2849	2.3	21
275	Tensile Properties and Cyto-toxicity of New Biomedical β-type Titanium Alloys. *Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan*, **2000**, 86, 602-609	0.5	21
274	Abnormal Deformation Behavior of Oxygen-Modified Type Ti-29Nb-13Ta-4.6Zr Alloys for Biomedical Applications. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2017**, 48, 139-149	2.3	20
273	Effects of TiB on the mechanical properties of Ti29Nb13Ta4.6Zr alloy for use in biomedical applications. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 5600-5609	5.3	20
272	Influence of Fe Content of Ti-Mn-Fe Alloys on Phase Constitution and Heat Treatment Behavior. *Materials Science Forum*, **2012**, 706-709, 1893-1898	0.4	20
271	Recent Research and Development in Metallic Materials for Biomedical, Dental and Healthcare Products Applications. *Materials Science Forum*, **2007**, 539-543, 193-200	0.4	20
270	Wear Characteristics of Surface Oxidation Treated New Biomedical β-type Titanium Alloy in Simulated Body Environment. *Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan*, **2002**, 88, 567-574	0.5	20

269	Development of .BETA. Type Titanium Alloys for Impant Materials.. *Materia Japan*, **1998**, 37, 843-846	0.1	20
268	Evaluation of dynamic crack initiation and growth toughness by computer aided charpy impact testing system. *Nuclear Engineering and Design*, **1989**, 111, 27-33	1.8	20
267	Osteoanabolic Implant Materials for Orthopedic Treatment. *Advanced Healthcare Materials*, **2016**, 5, 1740-52	10.1	20
266	Developing biomedical nano-grained □type titanium alloys using high pressure torsion for improved cell adherence. *RSC Advances*, **2016**, 6, 7426-7430	3.7	19
265	Passive films and corrosion resistance of Ti□Hf alloys in 5% HCl solution. *Surface and Coatings Technology*, **2009**, 204, 180-186	4.4	19
264	Bioactive Ceramic Surface Modification of β-Type Ti-Nb-Ta-Zr System Alloy by Alkali Solution Treatment. *Materials Transactions*, **2007**, 48, 293-300	1.3	19
263	Fatigue Properties and Microstructure of Newly Developed Ti-29Nb-14Ta-4.6Zr for Biomedical Applications. *Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals*, **2002**, 66, 715-722	0.4	19
262	Microstructural evolution and mechanical properties of biomedical Co-Cr-Mo alloy subjected to high-pressure torsion. *Journal of the Mechanical Behavior of Biomedical Materials*, **2016**, 59, 226-235	4.1	18
261	Effects of micro- and nano-scale wave-like structures on fatigue strength of a beta-type titanium alloy developed as a biomaterial. *Journal of the Mechanical Behavior of Biomedical Materials*, **2014**, 29, 393-402	4.1	18
260	PHOSPHATE GLASSES AND GLASS-CERAMICS FOR BIOMEDICAL APPLICATIONS. *Phosphorus Research Bulletin*, **2012**, 26, 8-15	0.3	18
259	Improvement of the fatigue life of titanium alloys for biomedical devices through microstructural control. *Expert Review of Medical Devices*, **2010**, 7, 481-8	3.5	18
258	????????Ti??Ti-29Nb-13Ta-4.6Zr???. *Materia Japan*, **2002**, 41, 221-223	0.1	18
257	Fracture characteristics, microstructure, and tissue reaction of Ti-5Al-2.5Fe for orthopedic surgery. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1996**, 27, 3925-3935	2.3	18
256	On the accuracy of measurement of dynamic elastic-plastic fracture toughness parameters by the instrumented charpy test. *Engineering Fracture Mechanics*, **1987**, 26, 83-94	4.2	18
255	Microstructural factors determining mechanical properties of laser-welded Ti□4.5Al□2.5Cr□1.2Fe□0.1C alloy for use in next-generation aircraft. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 550, 55-65	5.3	17
254	Fretting Fatigue Characteristics of New Biomedical β-type Titanium Alloy in Air and Simulated Body Environment. *Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan*, **2002**, 88, 553-560	0.5	17
253	Mechanical Properties of Biocompatible Beta-Type Titanium Alloy Coated with Calcium Phosphate Invert Glass-Ceramic Layer. *Materials Transactions*, **2005**, 46, 1564-1569	1.3	17
252	Effect of Cooling Rate on Microstructure and Fracture Characteristics of β-Rich α + β Type Ti-4.5Al-3V-2Mo-2Fe Alloy. *Materials Transactions*, **2001**, 42, 1339-1348	1.3	17

251	Fatigue characteristics of ultra high molecular weight polyethylene with different molecular weight for implant material. *Journal of Materials Science: Materials in Medicine*, **2001**, 12, 267-72	4.5	17
250	Electrochemical Surface Treatment of a titanium Alloy to Realize an Antibacterial Property and Bioactivity. *Metals*, **2016**, 6, 76	2.3	17
249	Development of low-Young's modulus TiNb-based alloys with Cr addition. *Journal of Materials Science*, **2019**, 54, 8675-8683	4.3	16
248	Corrosion behavior, mechanical properties and cell cytotoxity of Zr-based bulk metallic glasses. *Intermetallics*, **2016**, 72, 69-75	3.5	16
247	Synthesis of biphasic calcium phosphate (BCP) coatings on type titanium alloys reinforced with rutile-TiO2 compounds: adhesion resistance and in-vitro corrosion. *Journal of Sol-Gel Science and Technology*, **2018**, 87, 713-724	2.3	16
246	Recent Progress in Research and Development of Metallic Structural Biomaterials with Mainly Focusing on Mechanical Biocompatibility. *Materials Transactions*, **2018**, 59, 1-13	1.3	16
245	Fatigue characteristics of a biomedical type titanium alloy with titanium boride. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 640, 154-164	5.3	16
244	Mechanical and biodegradable properties of porous titanium filled with poly-L-lactic acid by modified in situ polymerization technique. *Journal of the Mechanical Behavior of Biomedical Materials*, **2011**, 4, 1206-18	4.1	16
243	Wear and Mechanical Properties, and Cell Viability of Gas-Nitrided Beta-Type Ti-Nb-Ta-Zr System Alloy for Biomedical Applications. *Materials Transactions*, **2008**, 49, 166-174	1.3	16
242	Machinable calcium pyrophosphate glass-ceramics. *Journal of Materials Research*, **2001**, 16, 876-880	2.5	16
241	Dissolution of Ferrous Alloys into Molten Aluminium. *Transactions of the Japan Institute of Metals*, **1982**, 23, 780-787		16
240	Adhesive strength of medical polymer on anodic oxide nanostructures fabricated on biomedical type titanium alloy. *Materials Science and Engineering C*, **2014**, 36, 244-51	8.3	15
239	Effect of Nb Content on Microstructure, Tensile Properties and Elastic Modulus of Ti-XNb-10Ta-5Zr Alloys for Biomedical Applications. *Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals* , **2003**, 67, 681-687	0.4	15
238	Mechanical properties of Ti4.5Al3V2Mo2Fe and possibility for healthcare applications. *Materials Science and Engineering C*, **2005**, 25, 296-303	8.3	15
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236	Enhancement of adhesive strength of hydroxyapatite films on Ti-29Nb-13Ta-4.6Zr by surface morphology control. *Journal of the Mechanical Behavior of Biomedical Materials*, **2013**, 18, 232-9	4.1	14
235	Differences in Wear Behaviors at Sliding Contacts for β-Type and (α + β)-Type Titanium Alloys in Ringer’s Solution and Air. *Materials Transactions*, **2015**, 56, 317-326	1.3	14
234	Phase Constitution and Heat Treatment Behavior of Ti-7mass% Mn-Al Alloys. *Materials Science Forum*, **2010**, 654-656, 855-858	0.4	14

233	Development of biomedical porous titanium filled with medical polymer by in-situ polymerization of monomer solution infiltrated into pores. *Journal of the Mechanical Behavior of Biomedical Materials*, **2010**, 3, 41-50	4.1	14
232	Frictional wear characteristics of biomedical Ti-29Nb-13Ta-4.6Zr alloy with various microstructures in air and simulated body fluid. *Biomedical Materials (Bristol)*, **2007**, 2, S167-74	3.5	14
231	Joining of Calcium Phosphate Invert Glass-Ceramics on a □Type Titanium Alloy. *Journal of the American Ceramic Society*, **2003**, 86, 1031-1033	3.8	14
230	Effect of Microstructure on Fatigue Strength of Bovine Compact Bones. *JSME International Journal Series A-Solid Mechanics and Material Engineering*, **2005**, 48, 472-480		14
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228	Instrumented Impact Testing of Ceramics. *Transactions of the Japan Institute of Metals*, **1986**, 27, 775-783		14
227	Effect of .BETA. Phase Stability at Room Temperature on Mechanical Properties in .BETA.-Rich .ALPHA.+.BETA. Type Ti-4.5Al-3V-2Mo-2Fe Alloy.. *ISIJ International*, **2002**, 42, 191-199	1.7	14
226	In vitro biocompatibility of Ti-Mg alloys fabricated by direct current magnetron sputtering. *Materials Science and Engineering C*, **2015**, 54, 1-7	8.3	13
225	Effects of Mo Addition on the Mechanical Properties and Microstructures of Ti-Mn Alloys Fabricated by Metal Injection Molding for Biomedical Applications. *Materials Transactions*, **2017**, 58, 271-279	1.2	13
224	Specific characteristics of mechanically and biologically compatible titanium alloy rods for use in spinal fixation applications. *Materials Letters*, **2012**, 86, 178-181	3.3	13
223	Mechanism of unique hardening of dental Ag□Pd□Au□Cu alloys in relation with constitutional phases. *Journal of Alloys and Compounds*, **2012**, 519, 15-24	5.7	13
222	Low Modulus Titanium Alloys for Inhibiting Bone Atrophy **2011**,		13
221	Mechanical Properties and Biocompatibilities of Zr-Nb System Alloys with Different Nb Contents for Biomedical Applications. *Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals*, **2011**, 75, 445-451	0.4	13
220	Effect of Aging Treatment on Mechanical Properties of Ti-29Nb-13Ta-4.6Zr Alloy for Biomedical Applications. *Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals*, **2006**, 70, 295-303	0.4	13
219	Aging Characteristics and Mechanical Properties of Ti-29Nb-13Ta-4.6Zr Coated with Calcium Phosphate Invert Glass-Ceramic for Biomedical Applications. *Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals*, **2003**, 67, 604-613	0.4	13
218	Improvement in mechanical properties of dental cast Ti-6Al-7Nb by thermochemical processing. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2002**, 33, 503-510	2.3	13
217	Fatigue Characteristics of Low Cost β Titanium Alloys for Healthcare and Medical Applications. *Materials Transactions*, **2005**, 46, 1570-1577	1.3	13
216	Effect of microstructure on fracture characteristics of Ti-6Al-2Sn-2Zr-2Mo-2Cr-Si. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2001**, 32, 2795-2804	2.3	13

215	Wear transition of solid-solution-strengthened Ti-29Nb-13Ta-4.6Zr alloys by interstitial oxygen for biomedical applications. *Journal of the Mechanical Behavior of Biomedical Materials*, **2015**, 51, 398-408	4.1	12
214	Corrosion Behavior of MgZnCa Bulk Amorphous Alloys Fabricated by Spark Plasma Sintering. *Acta Metallurgica Sinica (English Letters)*, **2016**, 29, 793-799	2.5	12
213	Experimental application of pulsed laser-induced water jet for endoscopic submucosal dissection: mechanical investigation and preliminary experiment in swine. *Digestive Endoscopy*, **2013**, 25, 255-63	3.7	12
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209	Tensile Properties and Surface Reaction Layer of Biomaterial, Ti-29Nb-13Ta-4.6Zr, Cast by Dental Precision Casting Process Using Various Investment Materials. *Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan*, **2004**, 90, 154-161	0.5	12
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