Mitsuo Niinomi

List of Publications by Year in descending order

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350 papers 16,093 citations

50 h-index 119 g-index

368 all docs

368 docs citations

368 times ranked 8481 citing authors

#	Article	IF	CITATIONS
1	Mechanical properties of biomedical titanium alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1998, 243, 231-236.	2.6	1,662
2	Development of new metallic alloys for biomedical applications. Acta Biomaterialia, 2012, 8, 3888-3903.	4.1	1,249
3	Recent metallic materials for biomedical applications. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 477-486.	1.1	1,179
4	Design and mechanical properties of new \hat{l}^2 type titanium alloys for implant materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1998, 243, 244-249.	2.6	1,071
5	Mechanical biocompatibilities of titanium alloys for biomedical applications. Journal of the Mechanical Behavior of Biomedical Materials, 2008, 1, 30-42.	1.5	1,017
6	Recent research and development in titanium alloys for biomedical applications and healthcare goods. Science and Technology of Advanced Materials, 2003, 4, 445-454.	2.8	780
7	Biocompatibility of Ti-alloys for long-term implantation. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 20, 407-415.	1.5	664
8	Fatigue performance and cyto-toxicity of low rigidity titanium alloy, Ti–29Nb–13Ta–4.6Zr. Biomaterials, 2003, 24, 2673-2683.	5.7	478
9	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.	2.6	333
10	Development of Low Rigidity β-type Titanium Alloy for Biomedical Applications. Materials Transactions, 2002, 43, 2970-2977.	0.4	301
11	Corrosion resistance and biocompatibility of Ti–Ta alloys for biomedical applications. Materials Science & Science & Properties, Microstructure and Processing, 2005, 398, 28-36.	2.6	253
12	Metallic biomaterials. Journal of Artificial Organs, 2008, 11, 105-110.	0.4	248
13	Biomedical titanium alloys with Young's moduli close to that of cortical bone. International Journal of Energy Production and Management, 2016, 3, 173-185.	1.9	241
14	Beta type Ti–Mo alloys with changeable Young's modulus for spinal fixation applications. Acta Biomaterialia, 2012, 8, 1990-1997.	4.1	172
15	Corrosion wear fracture of new \hat{l}^2 type biomedical titanium alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 263, 193-199.	2.6	161
16	Biologically and Mechanically Biocompatible Titanium Alloys. Materials Transactions, 2008, 49, 2170-2178.	0.4	159
17	Ti–25Ta alloy with the best mechanical compatibility in Ti–Ta alloys for biomedical applications. Materials Science and Engineering C, 2009, 29, 1061-1065.	3.8	148
18	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.	3.8	147

#	Article	IF	CITATIONS
19	Relationships between tensile deformation behavior and microstructure in Ti–Nb–Ta–Zr system alloys. Materials Science and Engineering C, 2005, 25, 363-369.	3.8	127
20	Decomposition of martensite α″ during aging treatments and resulting mechanical properties of Tiâ^'Ta alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 384, 92-101.	2.6	119
21	Microstructures and mechanical properties of metastable Ti–30Zr–(Cr, Mo) alloys with changeable Young's modulus for spinal fixation applications. Acta Biomaterialia, 2011, 7, 3230-3236.	4.1	119
22	Self-adjustment of Young's modulus in biomedical titanium alloys during orthopaedic operation. Materials Letters, 2011, 65, 688-690.	1.3	117
23	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.	3.8	113
24	Optimization of Cr content of metastable β-type Ti–Cr alloys with changeable Young's modulus for spinal fixation applications. Acta Biomaterialia, 2012, 8, 2392-2400.	4.1	107
25	Microstructures and mechanical properties of Ti–50mass% Ta alloy for biomedical applications. Journal of Alloys and Compounds, 2008, 466, 535-542.	2.8	101
26	Nanotube oxide coating on Ti–29Nb–13Ta–4.6Zr alloy prepared by self-organizing anodization. Electrochimica Acta, 2006, 52, 94-101.	2.6	98
27	Tensile Deformation Behavior of Ti-Nb-Ta-Zr Biomedical Alloys. Materials Transactions, 2004, 45, 1113-1119.	0.4	86
28	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.	2.6	85
29	Improvement in Fatigue Strength of Biomedical β-type Ti–Nb–Ta–Zr Alloy While Maintaining Low Young's Modulus Through Optimizing ω-Phase Precipitation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 294-302.	1.1	81
30	Microstructures, mechanical properties and cytotoxicity of low cost beta Ti–Mn alloys for biomedical applications. Acta Biomaterialia, 2015, 26, 366-376.	4.1	80
31	Recent titanium R&D for biomedical applications in japan. Jom, 1999, 51, 32-34.	0.9	75
32	Effects of microstructure on the short fatigue crack initiation and propagation characteristics of biomedical $\hat{l}\pm\hat{l}^2$ titanium alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2000, 31, 1949-1958.	1.1	75
33	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.	1.1	71
34	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.	1.5	71
35	Bioactive calcium phosphate invert glass-ceramic coating on β-type Ti–29Nb–13Ta–4.6Zr alloy. Biomaterials, 2003, 24, 283-290.	5.7	70
36	Fully Depleted Ti–Nb–Ta–Zr–O Nanotubes: Interfacial Charge Dynamics and Solar Hydrogen Production. ACS Applied Materials & Interfaces, 2018, 10, 22997-23008.	4.0	70

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37	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.	2.6	69
38	Apatite Formation on Calcium Phosphate Invert Glasses in Simulated Body Fluid. Journal of the American Ceramic Society, 2001, 84, 450-52.	1.9	67
39	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.	3.8	67
40	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.	0.4	64
41	Micro-arc oxidation treatment to improve the hard-tissue compatibility of Ti–29Nb–13Ta–4.6Zr alloy. Applied Surface Science, 2012, 262, 34-38.	3.1	64
42	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.	2.6	62
43	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.	2.6	60
44	Effect of Ta content on mechanical properties of Ti–30Nb–XTa–5Zr. Materials Science and Engineering C, 2005, 25, 370-376.	3.8	60
45	Changeable Young's modulus with large elongation-to-failure in β-type titanium alloys for spinal fixation applications. Scripta Materialia, 2014, 82, 29-32.	2.6	59
46	Design and development of metallic biomaterials with biological and mechanical biocompatibility. Journal of Biomedical Materials Research - Part A, 2019, 107, 944-954.	2.1	58
47	Influence of oxygen on omega phase stability in the Ti-29Nb-13Ta-4.6Zr alloy. Scripta Materialia, 2016, 123, 144-148.	2.6	57
48	Athermal and deformation-induced ï‰-phase transformations in biomedical beta-type alloy Ti–9Cr–0.2O. Acta Materialia, 2016, 106, 162-170.	3.8	56
49	Improvement of microstructure, mechanical and corrosion properties of biomedical Ti-Mn alloys by Mo addition. Materials and Design, 2016, 110, 414-424.	3.3	54
50	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.	3.8	53
51	Heterogeneous structure and mechanical hardness of biomedical <mml:math altimg="si16.gif" display="inline" overflow="scroll" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>î²</mml:mi></mml:math> -type Tiâ€"29Nbâ€"13Taâ€"4.6Zr subjected to high-pressure torsion, lournal of the Mechanical Behavior of Biomedical Materials, 2012, 10, 235-245.	1.5	53
52	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.	2.6	52
53	Japanese research and development on metallic biomedical, dental, and healthcare materials. Jom, 2005, 57, 18-24.	0.9	51
54	Deformation-induced ω phase in modified Ti–29Nb–13Ta–4.6Zr alloy by Cr addition. Acta Biomaterialia, 2013, 9, 8027-8035.	4.1	49

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55	Fatigue, Fretting Fatigue and Corrosion Characteristics of Biocompatible Beta Type Titanium Alloy Conducted with Various Thermo-Mechanical Treatments. Materials Transactions, 2004, 45, 1540-1548.	0.4	47
56	Mechanical properties and microstructures of low cost \hat{l}^2 titanium alloys for healthcare applications. Materials Science and Engineering C, 2005, 25, 304-311.	3.8	47
57	Titanium Alloys for Biomedical Applications. Springer Series in Biomaterials Science and Engineering, 2015, , 179-213.	0.7	47
58	Predominant factor determining wear properties of \hat{l}^2 -type and $(\hat{l}\pm+\hat{l}^2)$ -type titanium alloys in metal-to-metal contact for biomedical applications. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 41, 208-220.	1.5	47
59	Calcium phosphate invert glass-ceramic coatings joined by self-development of compositionally gradient layers on a titanium alloy. Biomaterials, 2001, 22, 577-582.	5.7	46
60	Development of thermo-mechanical processing for fabricating highly durable <mml:math altimg="si5.gif" display="inline" overflow="scroll" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mstyle mathvariant="bold"><mml:mi>î²</mml:mi>(/mml:mstyle></mml:mstyle></mml:math> -type Tiâ€"Nbâ€"Taâ€"Zr rod for use in spinal fixation devices. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 9, 207-216.	1.5	45
61	In situ X-ray analysis of mechanism of nonlinear super elastic behavior of Ti–Nb–Ta–Zr system beta-type titanium alloy for biomedical applications. Materials Science and Engineering C, 2008, 28, 406-413.	3.8	44
62	Improved fatigue properties with maintaining low Young's modulus achieved in biomedical beta-type titanium alloy by oxygen addition. Materials Science & Droperties, Microstructure and Processing, 2017, 704, 10-17.	2.6	44
63	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, 205-213.	1.5	43
64	Mechanical properties and cytocompatibility of oxygen-modified β-type Ti–Cr alloys for spinal fixation devices. Acta Biomaterialia, 2015, 12, 352-361.	4.1	43
65	Improvement in mechanical strength of low-cost β-type Ti–Mn alloys fabricated by metal injection molding through cold rolling. Journal of Alloys and Compounds, 2016, 664, 272-283.	2.8	42
66	\hat{l}^2 -Type titanium alloys for spinal fixation surgery with high Young's modulus variability and good mechanical properties. Acta Biomaterialia, 2015, 24, 361-369.	4.1	41
67	Effect of Nb on Microstructural Characteristics of Ti-Nb-Ta-Zr Alloy for Biomedical Applications. Materials Transactions, 2002, 43, 2964-2969.	0.4	40
68	Isothermal Aging Behavior of Beta Titanium–Manganese Alloys. Materials Transactions, 2009, 50, 2737-2743.	0.4	40
69	The plasma electrolytic oxidation (PEO) coatings to enhance in-vitro corrosion resistance of Ti–29Nb–13Ta–4.6Zr alloys: The combined effect of duty cycle and the deposition frequency. Surface and Coatings Technology, 2019, 374, 345-354.	2.2	40
70	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, 2009-2016.	1.5	38
71	Inhibited grain growth in hydroxyapatite–graphene nanocomposites during high temperature treatment and their enhanced mechanical properties. Ceramics International, 2016, 42, 11248-11255.	2.3	35
72	Synthesis of biphasic calcium phosphate (BCP) coatings on $\hat{l}^2\hat{a}\in \hat{l}$ 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.	1.1	33

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73	Toughness and Strength of Microstructurally Controlled Titanium Alloys ISIJ International, 1991, 31, 848-855.	0.6	31
74	Anomalous Thermal Expansion of Cold-Rolled Ti-Nb-Ta-Zr Alloy. Materials Transactions, 2009, 50, 423-426.	0.4	31
75	Dynamic Young's Modulus and Mechanical Properties of Ti−Hf Alloys. Materials Transactions, 2004, 45, 1549-1554.	0.4	30
76	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.	0.2	30
77	Osteoanabolic Implant Materials for Orthopedic Treatment. Advanced Healthcare Materials, 2016, 5, 1740-1752.	3.9	29
78	Relationship between fracture toughness and microstructure of Ti–6Al–2Sn–4Zr–2Mo alloy reinforced with TiB particles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 263, 319-325.	2.6	28
79	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.	1.1	28
80	Recent Research and Development in Metallic Materials for Biomedical, Dental and Healthcare Products Applications. Materials Science Forum, 2007, 539-543, 193-200.	0.3	28
81	Effect of Deformation-Induced & Deformation	0.4	28
82	Improvement in fatigue strength while keeping low Young's modulus of a \hat{l}^2 -type titanium alloy through yttrium oxide dispersion. Materials Science and Engineering C, 2012, 32, 542-549.	3.8	28
83	Abnormal Deformation Behavior of Oxygen-Modified \hat{I}^2 -Type Ti-29Nb-13Ta-4.6Zr Alloys for Biomedical Applications. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 139-149.	1.1	27
84	Fatigue characteristics of a biomedical \hat{I}^2 -type titanium alloy with titanium boride. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 640, 154-164.	2.6	26
85	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.	1.5	26
86	Influence of Fe Content of Ti-Mn-Fe Alloys on Phase Constitution and Heat Treatment Behavior. Materials Science Forum, 0, 706-709, 1893-1898.	0.3	25
87	PHOSPHATE GLASSES AND GLASS-CERAMICS FOR BIOMEDICAL APPLICATIONS. Phosphorus Research Bulletin, 2012, 26, 8-15.	0.1	25
88	Developing biomedical nano-grained \hat{l}^2 -type titanium alloys using high pressure torsion for improved cell adherence. RSC Advances, 2016, 6, 7426-7430.	1.7	25
89	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.	1.1	24
90	Creation of Functionality by Ubiquitous Elements in Titanium Alloys. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2011, 75, 21-28.	0.2	24

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91	Evaluation of dynamic crack initiation and growth toughness by computer aided charpy impact testing system. Nuclear Engineering and Design, 1989, 111, 27-33.	0.8	23
92	Development of .BETA. Type Titanium Alloys for Impant Materials Materia Japan, 1998, 37, 843-846.	0.1	23
93	Tensile Properties and Cyto-toxicity of New Biomedical & Samp; beta; -type Titanium Alloys. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2000, 86, 602-609.	0.1	23
94	Fracture characteristics and microstructural factors in single and duplex annealed Ti–4.5Al–3V–2Mo–2Fe. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 308, 216-224.	2.6	23
95	Improvements in the Superelasticity and Change in Deformation Mode of \hat{l}^2 -Type TiNb24Zr2 Alloys Caused by Aging Treatments. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2843-2849.	1.1	23
96	Recent Progress in Research and Development of Metallic Structural Biomaterials with Mainly Focusing on Mechanical Biocompatibility. Materials Transactions, 2018, 59, 1-13.	0.4	23
97	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.	0.1	22
98	Passive films and corrosion resistance of Ti–Hf alloys in 5% HCl solution. Surface and Coatings Technology, 2009, 204, 180-186.	2,2	22
99	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.	2.2	22
100	Development of low-Young's modulus Ti–Nb-based alloys with Cr addition. Journal of Materials Science, 2019, 54, 8675-8683.	1.7	22
101	Hydroxyapatite coating on titanium alloy TNTZ for increasing osseointegration and reducing inflammatory response in vivo on Rattus norvegicus Wistar rats. Ceramics International, 2021, 47, 16094-16100.	2.3	22
102	On the accuracy of measurement of dynamic elastic-plastic fracture toughness parameters by the instrumented charpy test. Engineering Fracture Mechanics, 1987, 26, 83-94.	2.0	21
103	Low Modulus Titanium Alloys for Inhibiting Bone Atrophy. , 0, , .		21
104	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.	1.5	21
105	Corrosion behavior, mechanical properties and cell cytotoxity of Zr-based bulk metallic glasses. Intermetallics, 2016, 72, 69-75.	1.8	21
106	Dissolution of Ferrous Alloys into Molten Aluminium. Transactions of the Japan Institute of Metals, 1982, 23, 780-787.	0.5	20
107	Fatigue characteristics of ultra high molecular weight polyethylene with different molecular weight for implant material. Journal of Materials Science: Materials in Medicine, 2001, 12, 267-272.	1.7	20
108	Bioactive Ceramic Surface Modification of β-Type Ti-Nb-Ta-Zr System Alloy by Alkali Solution Treatment. Materials Transactions, 2007, 48, 293-300.	0.4	20

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109	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.	0.4	20
110	Improvement of the fatigue life of titanium alloys for biomedical devices through microstructural control. Expert Review of Medical Devices, 2010, 7, 481-488.	1.4	20
111	Effects of TiB on the mechanical properties of Ti–29Nb–13Ta–4.6Zr alloy for use in biomedical applications. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 5600-5609.	2.6	20
112	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.	0.2	20
113	Machinable calcium pyrophosphate glass-ceramics. Journal of Materials Research, 2001, 16, 876-880.	1.2	19
114	é«~生体èžå•̂機èf½æ€§Tiå•̂金Ti-29Nb-13Ta-4.6Zrã®é–‹ç™º. Materia Japan, 2002, 41, 221-223.	0.1	19
115	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, 1206-1218.	1.5	19
116	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.	2.6	19
117	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, 232-239.	1.5	19
118	Electrochemical Surface Treatment of a \hat{l}^2 -titanium Alloy to Realize an Antibacterial Property and Bioactivity. Metals, 2016, 6, 76.	1.0	19
119	Titanium Alloys. , 2019, , 213-224.		19
120	Heat Treatment Processes and Mechanical Properties of New & Deta;-type Biomedical Ti-29Nb-13Ta-4.6Zr Alloy. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2000, 86, 610-616.	0.1	18
121	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.	0.4	18
122	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.	0.1	18
123	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.	1.5	18
124	Reduction in anisotropy of mechanical properties of coilable ($\hat{l}\pm + \hat{l}^2$)-type titanium alloy thin sheet through simple heat treatment for use in next-generation aircraft applications. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 594, 103-110.	2.6	18
125	Effect of .BETA. Phase Stability at Room Temperature on Mechanical Properties in .BETARich .ALPHA.+.BETA. Type Ti-4.5Al-3V-2Mo-2Fe Alloy ISIJ International, 2002, 42, 191-199.	0.6	18
126	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.	1.1	17

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127	Mechanical Properties of Biocompatible Beta-Type Titanium Alloy Coated with Calcium Phosphate Invert Glass-Ceramic Layer. Materials Transactions, 2005, 46, 1564-1569.	0.4	17
128	Effect of Microstructure on Fatigue Strength of Bovine Compact Bones. JSME International Journal Series A-Solid Mechanics and Material Engineering, 2005, 48, 472-480.	0.4	17
129	Mechanical properties of Ti–4.5Al–3V–2Mo–2Fe and possibility for healthcare applications. Materials Science and Engineering C, 2005, 25, 296-303.	3.8	17
130	Experimental application of pulsed laserâ€induced water jet for endoscopic submucosal dissection: Mechanical investigation and preliminary experiment in swine. Digestive Endoscopy, 2013, 25, 255-263.	1.3	17
131	Adhesive strength of medical polymer on anodic oxide nanostructures fabricated on biomedical \hat{l}^2 -type titanium alloy. Materials Science and Engineering C, 2014, 36, 244-251.	3.8	17
132	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.	1.5	17
133	Corrosion Behavior of MgZnCa Bulk Amorphous Alloys Fabricated by Spark Plasma Sintering. Acta Metallurgica Sinica (English Letters), 2016, 29, 793-799.	1.5	17
134	Fatigue Characteristics of Low Cost β Titanium Alloys for Healthcare and Medical Applications. Materials Transactions, 2005, 46, 1570-1577.	0.4	16
135	Phase Constitution and Heat Treatment Behavior of Ti-7mass% Mn-Al Alloys. Materials Science Forum, 2010, 654-656, 855-858.	0.3	16
136	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.	0.2	16
137	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.	2.8	16
138	Microstructure and fatigue behaviors of a biomedical Ti–Nb–Ta–Zr alloy with trace CeO 2 additions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 619, 112-118.	2.6	16
139	In vitro biocompatibility of Ti–Mg alloys fabricated by direct current magnetron sputtering. Materials Science and Engineering C, 2015, 54, 1-7.	3.8	16
140	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.	1.1	15
141	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.	0.2	15
142	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.	0.2	15
143	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-S174.	1.7	15
144	Differences in Wear Behaviors at Sliding Contacts for & Samp; beta;-Type and (& Samp; alpha; +) Tj ETQq0 0 0 rgBT /0 56, 317-326.	Overlock 1 0.4	0 Tf 50 67 Td 15

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145	Phase transformation and its effect on mechanical characteristics in warm-deformed Ti-29Nb-13Ta-4.6Zr alloy. Metals and Materials International, 2015, 21, 202-207.	1.8	15
146	Grain Refinement Mechanism and Evolution of Dislocation Structure of Co–Cr–Mo Alloy Subjected to High-Pressure Torsion. Materials Transactions, 2016, 57, 1109-1118.	0.4	15
147	Effect of Nb Content on Microstructures and Mechanical Properties of Ti-xNb-2Fe Alloys. Journal of Materials Engineering and Performance, 2019, 28, 5501-5508.	1.2	15
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