

Mitsuo Niinomi

List of Publications by Year in descending order

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350
papers

16,093
citations

38742
50
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18647
119
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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.	5.6	1,662
2	Development of new metallic alloys for biomedical applications. Acta Biomaterialia, 2012, 8, 3888-3903.	8.3	1,249
3	Recent metallic materials for biomedical applications. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 477-486.	2.2	1,179
4	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.	5.6	1,071
5	Mechanical biocompatibilities of titanium alloys for biomedical applications. Journal of the Mechanical Behavior of Biomedical Materials, 2008, 1, 30-42.	3.1	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.	6.1	780
7	Biocompatibility of Ti-alloys for long-term implantation. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 20, 407-415.	3.1	664
8	Fatigue performance and cyto-toxicity of low rigidity titanium alloy, Ti-29Nb-13Ta-4.6Zr. Biomaterials, 2003, 24, 2673-2683.	11.4	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.	5.6	333
10	Development of Low Rigidity β -type Titanium Alloy for Biomedical Applications. Materials Transactions, 2002, 43, 2970-2977.	1.2	301
11	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.	5.6	253
12	Metallic biomaterials. Journal of Artificial Organs, 2008, 11, 105-110.	0.9	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.	3.7	241
14	Beta type Ti-Mo alloys with changeable Young's modulus for spinal fixation applications. Acta Biomaterialia, 2012, 8, 1990-1997.	8.3	172
15	Corrosion wear fracture of new β type biomedical titanium alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 263, 193-199.	5.6	161
16	Biologically and Mechanically Biocompatible Titanium Alloys. Materials Transactions, 2008, 49, 2170-2178.	1.2	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.	7.3	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.	7.3	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.	7.3	127
20	Decomposition of martensite β 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.	5.6	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.	8.3	119
22	Self-adjustment of Young's modulus in biomedical titanium alloys during orthopaedic operation. Materials Letters, 2011, 65, 688-690.	2.6	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.	7.3	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.	8.3	107
25	Microstructures and mechanical properties of Ti-50mass% Ta alloy for biomedical applications. Journal of Alloys and Compounds, 2008, 466, 535-542.	5.5	101
26	Nanotube oxide coating on Ti-29Nb-13Ta-4.6Zr alloy prepared by self-organizing anodization. Electrochimica Acta, 2006, 52, 94-101.	5.2	98
27	Tensile Deformation Behavior of Ti-Nb-Ta-Zr Biomedical Alloys. Materials Transactions, 2004, 45, 1113-1119.	1.2	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.	5.6	85
29	Improvement in Fatigue Strength of Biomedical β -type Ti-Nb-Ta-Zr Alloy While Maintaining Low Young's Modulus Through Optimizing β -Phase Precipitation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 294-302.	2.2	81
30	Microstructures, mechanical properties and cytotoxicity of low cost beta Ti-Mn alloys for biomedical applications. Acta Biomaterialia, 2015, 26, 366-376.	8.3	80
31	Recent titanium R&D for biomedical applications in japan. Jom, 1999, 51, 32-34.	1.9	75
32	Effects of microstructure on the short fatigue crack initiation and propagation characteristics of biomedical β /Ti titanium alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2000, 31, 1949-1958.	2.2	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.	2.2	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.	3.1	71
35	Bioactive calcium phosphate invert glass-ceramic coating on β -type Ti-29Nb-13Ta-4.6Zr alloy. Biomaterials, 2003, 24, 283-290.	11.4	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.	8.0	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.	5.6	69
38	Apatite Formation on Calcium Phosphate Invert Glasses in Simulated Body Fluid. Journal of the American Ceramic Society, 2001, 84, 450-52.	3.8	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.	7.3	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.	1.2	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.	6.1	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.	5.6	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.	5.6	60
44	Effect of Ta content on mechanical properties of Ti-30Nb-XTa-5Zr. Materials Science and Engineering C, 2005, 25, 370-376.	7.3	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.	5.2	59
46	Design and development of metallic biomaterials with biological and mechanical biocompatibility. Journal of Biomedical Materials Research - Part A, 2019, 107, 944-954.	4.0	58
47	Influence of oxygen on omega phase stability in the Ti-29Nb-13Ta-4.6Zr alloy. Scripta Materialia, 2016, 123, 144-148.	5.2	57
48	Athermal and deformation-induced β -phase transformations in biomedical beta-type alloy Ti-9Cr-0.2O. Acta Materialia, 2016, 106, 162-170.	7.9	56
49	Improvement of microstructure, mechanical and corrosion properties of biomedical Ti-Mn alloys by Mo addition. Materials and Design, 2016, 110, 414-424.	7.0	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.	7.3	53
51	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, 235-245.	3.1	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.	5.6	52
53	Japanese research and development on metallic biomedical, dental, and healthcare materials. Jom, 2005, 57, 18-24.	1.9	51
54	Deformation-induced β phase in modified Ti-29Nb-13Ta-4.6Zr alloy by Cr addition. Acta Biomaterialia, 2013, 9, 8027-8035.	8.3	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.	1.2	47
56	Mechanical properties and microstructures of low cost $\hat{\Gamma}^2$ titanium alloys for healthcare applications. Materials Science and Engineering C, 2005, 25, 304-311.	7.3	47
57	Titanium Alloys for Biomedical Applications. Springer Series in Biomaterials Science and Engineering, 2015, , 179-213.	1.0	47
58	Predominant factor determining wear properties of $\hat{\Gamma}^2$ -type and ($\hat{\Gamma}^1+\hat{\Gamma}^2$)-type titanium alloys in metal-to-metal contact for biomedical applications. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 41, 208-220.	3.1	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.	11.4	46
60	Development of thermo-mechanical processing for fabricating highly durable $\hat{\Gamma}^2$ -type Ti-Nb-Ta-Zr rod for use in spinal fixation devices. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 9, 207-216.	3.1	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.	7.3	44
62	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.	5.6	44
63	Deformation-induced changeable Young's modulus with high strength in $\hat{\Gamma}^2$ -type Ti-Cr-O alloys for spinal fixture. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 30, 205-213.	3.1	43
64	Mechanical properties and cytocompatibility of oxygen-modified $\hat{\Gamma}^2$ -type Ti-Cr alloys for spinal fixation devices. Acta Biomaterialia, 2015, 12, 352-361.	8.3	43
65	Improvement in mechanical strength of low-cost $\hat{\Gamma}^2$ -type Ti-Mn alloys fabricated by metal injection molding through cold rolling. Journal of Alloys and Compounds, 2016, 664, 272-283.	5.5	42
66	$\hat{\Gamma}^2$ -Type titanium alloys for spinal fixation surgery with high Young's modulus variability and good mechanical properties. Acta Biomaterialia, 2015, 24, 361-369.	8.3	41
67	Effect of Nb on Microstructural Characteristics of Ti-Nb-Ta-Zr Alloy for Biomedical Applications. Materials Transactions, 2002, 43, 2964-2969.	1.2	40
68	Isothermal Aging Behavior of Beta Titanium–Manganese Alloys. Materials Transactions, 2009, 50, 2737-2743.	1.2	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.	4.8	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.	3.1	38
71	Inhibited grain growth in hydroxyapatite–graphene nanocomposites during high temperature treatment and their enhanced mechanical properties. Ceramics International, 2016, 42, 11248-11255.	4.8	35
72	Synthesis of biphasic calcium phosphate (BCP) coatings on $\hat{\Gamma}^2$ -type titanium alloys reinforced with rutile-TiO ₂ compounds: adhesion resistance and in-vitro corrosion. Journal of Sol-Gel Science and Technology, 2018, 87, 713-724.	2.4	33

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73	Toughness and Strength of Microstructurally Controlled Titanium Alloys.. ISIJ International, 1991, 31, 848-855.	1.4	31
74	Anomalous Thermal Expansion of Cold-Rolled Ti-Nb-Ta-Zr Alloy. Materials Transactions, 2009, 50, 423-426.	1.2	31
75	Dynamic Young's Modulus and Mechanical Properties of Ti−Hf Alloys. Materials Transactions, 2004, 45, 1549-1554.	1.2	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.	0.4	30
77	Osteoanabolic Implant Materials for Orthopedic Treatment. Advanced Healthcare Materials, 2016, 5, 1740-1752.	7.6	29
78	Relationship between fracture toughness and microstructure of Tiâ6Alâ2Snâ4Zrâ2Mo alloy reinforced with TiB particles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 263, 319-325.	5.6	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.	2.2	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 ω Phase on the Mechanical Properties of Metastable β-Type Ti–V Alloys. Materials Transactions, 2012, 53, 1379-1384.	1.2	28
82	Improvement in fatigue strength while keeping low Young's modulus of a β -type titanium alloy through yttrium oxide dispersion. Materials Science and Engineering C, 2012, 32, 542-549.	7.3	28
83	Abnormal Deformation Behavior of Oxygen-Modified β -Type Ti-29Nb-13Ta-4.6Zr Alloys for Biomedical Applications. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 139-149.	2.2	27
84	Fatigue characteristics of a biomedical β -type titanium alloy with titanium boride. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 640, 154-164.	5.6	26
85	Microstructural evolution and mechanical properties of biomedical CoâCrâMo alloy subjected to high-pressure torsion. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 59, 226-235.	3.1	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.	0.6	25
88	Developing biomedical nano-grained β -type titanium alloys using high pressure torsion for improved cell adherence. RSC Advances, 2016, 6, 7426-7430.	3.6	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.	2.2	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.	0.4	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.	1.7	23
92	Development of .BETA. Type Titanium Alloys for Implant Materials.. Materia Japan, 1998, 37, 843-846.	0.1	23
93	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.	0.4	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.	5.6	23
95	Improvements in the Superelasticity and Change in Deformation Mode of β -Type TiNb24Zr2 Alloys Caused by Aging Treatments. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2843-2849.	2.2	23
96	Recent Progress in Research and Development of Metallic Structural Biomaterials with Mainly Focusing on Mechanical Biocompatibility. Materials Transactions, 2018, 59, 1-13.	1.2	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.	0.4	22
98	Passive films and corrosion resistance of Ti-Hf alloys in 5% HCl solution. Surface and Coatings Technology, 2009, 204, 180-186.	4.8	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.	4.8	22
100	Development of low-Young's modulus Ti-Nb-based alloys with Cr addition. Journal of Materials Science, 2019, 54, 8675-8683.	3.7	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.	4.8	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.	4.3	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.	3.1	21
105	Corrosion behavior, mechanical properties and cell cytotoxicity of Zr-based bulk metallic glasses. Intermetallics, 2016, 72, 69-75.	3.9	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.	3.6	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.	1.2	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.	1.2	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.	2.8	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.	5.6	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.	0.4	20
113	Machinable calcium pyrophosphate glass-ceramics. Journal of Materials Research, 2001, 16, 876-880.	2.6	19
114	é«ç”Yä½“èžâ•æ©ÿèf½æ€\$Tiâ•é†Ti-29Nb-13Ta-4.6Zrâ•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.	3.1	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.	5.6	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.	3.1	19
118	Electrochemical Surface Treatment of a Î²-titanium Alloy to Realize an Antibacterial Property and Bioactivity. Metals, 2016, 6, 76.	2.3	19
119	Titanium Alloys. , 2019, , 213-224.		19
120	Heat Treatment Processes and Mechanical Properties of New β-type Biomedical Ti-29Nb-13Ta-4.6Zr Alloy. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2000, 86, 610-616.	0.4	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.	1.2	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.	0.4	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.	3.1	18
124	Reduction in anisotropy of mechanical properties of coilable (Î±+Î²)-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.	5.6	18
125	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.	1.4	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.	2.2	17

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127	Mechanical Properties of Biocompatible Beta-Type Titanium Alloy Coated with Calcium Phosphate Invert Glass-Ceramic Layer. <i>Materials Transactions</i> , 2005, 46, 1564-1569.	1.2	17
128	Effect of Microstructure on Fatigue Strength of Bovine Compact Bones. <i>JSME International Journal Series A-Solid Mechanics and Material Engineering</i> , 2005, 48, 472-480.	0.4	17
129	Mechanical properties of Ti-4.5Al-3V-2Mo-2Fe and possibility for healthcare applications. <i>Materials Science and Engineering C</i> , 2005, 25, 296-303.	7.3	17
130	Experimental application of pulsed laser-induced water jet for endoscopic submucosal dissection: Mechanical investigation and preliminary experiment in swine. <i>Digestive Endoscopy</i> , 2013, 25, 255-263.	2.3	17
131	Adhesive strength of medical polymer on anodic oxide nanostructures fabricated on biomedical β -type titanium alloy. <i>Materials Science and Engineering C</i> , 2014, 36, 244-251.	7.3	17
132	Wear transition of solid-solution-strengthened Ti-29Nb-13Ta-4.6Zr alloys by interstitial oxygen for biomedical applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 51, 398-408.	3.1	17
133	Corrosion Behavior of MgZnCa Bulk Amorphous Alloys Fabricated by Spark Plasma Sintering. <i>Acta Metallurgica Sinica (English Letters)</i> , 2016, 29, 793-799.	2.9	17
134	Fatigue Characteristics of Low Cost β -Titanium Alloys for Healthcare and Medical Applications. <i>Materials Transactions</i> , 2005, 46, 1570-1577.	1.2	16
135	Phase Constitution and Heat Treatment Behavior of Ti-7mass% Mn-Al Alloys. <i>Materials Science Forum</i> , 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. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2011, 75, 445-451.	0.4	16
137	Mechanism of unique hardening of dental Ag-Pd-Au-Cu alloys in relation with constitutional phases. <i>Journal of Alloys and Compounds</i> , 2012, 519, 15-24.	5.5	16
138	Microstructure and fatigue behaviors of a biomedical Ti-Nb-Ta-Zr alloy with trace CeO ₂ additions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 619, 112-118.	5.6	16
139	In vitro biocompatibility of Ti-Mg alloys fabricated by direct current magnetron sputtering. <i>Materials Science and Engineering C</i> , 2015, 54, 1-7.	7.3	16
140	Improvement in mechanical properties of dental cast Ti-6Al-7Nb by thermochemical processing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002, 33, 503-510.	2.2	15
141	Effect of Nb Content on Microstructure, Tensile Properties and Elastic Modulus of Ti-XNb-10Ta-5Zr Alloys for Biomedical Applications. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2003, 67, 681-687.	0.4	15
142	Effect of Aging Treatment on Mechanical Properties of Ti-29Nb-13Ta-4.6Zr Alloy for Biomedical Applications. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2006, 70, 295-303.	0.4	15
143	Frictional wear characteristics of biomedical Ti-29Nb-13Ta-4.6Zr alloy with various microstructures in air and simulated body fluid. <i>Biomedical Materials (Bristol)</i> , 2007, 2, S167-S174.	3.3	15
144	Differences in Wear Behaviors at Sliding Contacts for β -Type and (α ; +) β -Type Ti-29Nb-13Ta-4.6Zr Alloy. <i>Journal of Biomedical Materials Research Part B: Applied Biomaterials</i> , 2008, 86B, 317-326.	1.2	15

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145	Phase transformation and its effect on mechanical characteristics in warm-deformed Ti-29Nb-13Ta-4.6Zr alloy. <i>Metals and Materials International</i> , 2015, 21, 202-207.	3.4	15
146	Grain Refinement Mechanism and Evolution of Dislocation Structure of Co-Cr-Mo Alloy Subjected to High-Pressure Torsion. <i>Materials Transactions</i> , 2016, 57, 1109-1118.	1.2	15
147	Effect of Nb Content on Microstructures and Mechanical Properties of Ti-xNb-2Fe Alloys. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 5501-5508.	2.5	15
148	Instrumented Impact Testing of Ceramics. <i>Transactions of the Japan Institute of Metals</i> , 1986, 27, 775-783.	0.5	14
149	Joining of Calcium Phosphate Invert Glass-Ceramics on a β -Type Titanium Alloy. <i>Journal of the American Ceramic Society</i> , 2003, 86, 1031-1033.	3.8	14
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