Masaaki Nakai

List of Publications by Year
in descending order

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219 papers	5,887 citations	101384 36 h-index	88477 70 g-index
245 all docs	245 docs citations	245 times ranked	4235 citing authors

#	Article	IF	Citations
1	Development of new metallic alloys for biomedical applications. Acta Biomaterialia, 2012, 8, 3888-3903.	4.1	1,249
2	Titanium-Based Biomaterials for Preventing Stress Shielding between Implant Devices and Bone. International Journal of Biomaterials, 2011, 2011, 1-10.	1.1	477
3	Biomedical titanium alloys with Youngâ€™s moduli close to that of cortical bone. International Journal of Energy Production and Management, 2016, 3, 173-185.	1.9	241
4	Beta type Tiâ€“Mo alloys with changeable Youngâ€™s modulus for spinal fixation applications. Acta Biomaterialia, 2012, 8, 1990-1997.	4.1	172
5	Characterization of air-formed surface oxide film on Tiâ€“29Nbâ€“13Taâ€“4.6Zr alloy surface using XPS and AES. Corrosion Science, 2008, 50, 2111-2116.	3.0	132
6	Microstructures and mechanical properties of metastable Tiâ€“30Zrâ€“(Cr, Mo) alloys with changeable Youngâ€™s modulus for spinal fixation applications. Acta Biomaterialia, 2011, 7, 3230-3236.	4.1	119
7	Self-adjustment of Young's modulus in biomedical titanium alloys during orthopaedic operation. Materials Letters, 2011, 65, 688-690.	1.3	117
8	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
9	Optimization of Cr content of metastable Î²-type Tiâ€“Cr alloys with changeable Youngâ€™s modulus for spinal fixation applications. Acta Biomaterialia, 2012, 8, 2392-2400.	4.1	107
10	Mechanical properties of a medical Î²-type titanium alloy with specific microstructural evolution through high-pressure torsion. Materials Science and Engineering C, 2013, 33, 2499-2507.	3.8	99
11	Observation of yielding and strain hardening in a titanium alloy having high oxygen content. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 5435-5445.	2.6	98
12	Effect of Zr on super-elasticity and mechanical properties of Tiâ€“24at% Nbâ€“(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
13	Improvement in Fatigue Strength of Biomedical Î²-type Tiâ€“Nbâ€“Taâ€“Zr Alloy While Maintaining Low Youngâ€™s Modulus Through Optimizing Ï‰-Phase Precipitation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 294-302.	1.1	81
14	Microstructures, mechanical properties and cytotoxicity of low cost beta Tiâ€“Mn alloys for biomedical applications. Acta Biomaterialia, 2015, 26, 366-376.	4.1	80
15	Fabrication of low-cost beta-type Tiâ€“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
16	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
17	Micro-arc oxidation treatment to improve the hard-tissue compatibility of Tiâ€“29Nbâ€“13Taâ€“4.6Zr alloy. Applied Surface Science, 2012, 262, 34-38.	3.1	64
18	Comparison of Various Properties between Titanium-Tantalum Alloy and Pure Titanium for Biomedical Applications. Materials Transactions, 2007, 48, 380-384.	0.4	63

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19	Surface hardening of biomedical Tiâ€“29Nbâ€“13Taâ€“4.6Zr and Tiâ€“6Alâ€“4V ELI by gas nitriding. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 486, 193-201.	2.6	62
20	Changeable Youngâ€™s modulus with large elongation-to-failure in Î²-type titanium alloys for spinal fixation applications. Scripta Materialia, 2014, 82, 29-32.	2.6	59
21	Influence of oxygen on omega phase stability in the Ti-29Nb-13Ta-4.6Zr alloy. Scripta Materialia, 2016, 123, 144-148.	2.6	57
22	Athermal and deformation-induced Ï‰-phase transformations in biomedical beta-type alloy Tiâ€“9Crâ€“0.2O. Acta Materialia, 2016, 106, 162-170.	3.8	56
23	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
24	Estimation of the System Free Energy of Martensite Phase in an Fe-Cr-C Ternary Alloy. ISIJ International, 2005, 45, 1909-1914.	0.6	53
25	Heterogeneous structure and mechanical hardness of biomedical <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si16.gif" display="inline" overflow="scroll"><mml:mi>Î²</mml:mi></mml:math>-type Tiâ€“29Nbâ€“13Taâ€“4.6Zr subjected to high-pressure torsion. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 10, 235-245.	1.5	53
26	Deformation-induced Ï‰ phase in modified Tiâ€“29Nbâ€“13Taâ€“4.6Zr alloy by Cr addition. Acta Biomaterialia, 2013, 9, 8027-8035.	4.1	49
27	Predominant factor determining wear properties of Î²-type and (Î±+Î²)-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
28	Development of thermo-mechanical processing for fabricating highly durable <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si5.gif" display="inline" overflow="scroll"><mml:mstyle mathvariant="bold"><mml:mi>Î²</mml:mi></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
29	In situ X-ray analysis of mechanism of nonlinear super elastic behavior of Tiâ€“Nbâ€“Taâ€“Zr system beta-type titanium alloy for biomedical applications. Materials Science and Engineering C, 2008, 28, 406-413.	3.8	44
30	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.	2.6	44
31	Deformation-induced changeable Young's modulus with high strength in Î²-type Tiâ€“Crâ€“O alloys for spinal fixture. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 30, 205-213.	1.5	43
32	Mechanical properties and cytocompatibility of oxygen-modified Î²-type Tiâ€“Cr alloys for spinal fixation devices. Acta Biomaterialia, 2015, 12, 352-361.	4.1	43
33	Deformation-induced Ï‰-phase transformation in a Î²-type titanium alloy during tensile deformation. Scripta Materialia, 2017, 130, 27-31.	2.6	43
34	Improvement in mechanical strength of low-cost Î²-type Tiâ€“Mn alloys fabricated by metal injection molding through cold rolling. Journal of Alloys and Compounds, 2016, 664, 272-283.	2.8	42
35	Î²-Type titanium alloys for spinal fixation surgery with high Youngâ€™s modulus variability and good mechanical properties. Acta Biomaterialia, 2015, 24, 361-369.	4.1	41
36	Relationship between various deformation-induced products and mechanical properties in metastable Tiâ€“30Zrâ€“Mo alloys for biomedical applications. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 2009-2016.	1.5	38

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37	Metastable Zrâ€"Nb alloys for spinal fixation rods with tunable Youngâ€™s modulus and low magnetic resonance susceptibility. Acta Biomaterialia, 2017, 62, 372-384.	4.1	37
38	A systematic study of Î²-type Ti-based PVD coatings on magnesium for biomedical application. Vacuum, 2021, 183, 109850.	1.6	35
39	Microstructural evolution of precipitation-hardened Î²-type titanium alloy through high-pressure torsion. Acta Materialia, 2014, 80, 172-182.	3.8	33
40	Synthesis of biphasic calcium phosphate (BCP) coatings on Î²â€'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
41	Anomalous Thermal Expansion of Cold-Rolled Ti-Nb-Ta-Zr Alloy. Materials Transactions, 2009, 50, 423-426.	0.4	31
42	Synthesis and Characterization of Hydroxyapatite/TiO2 Coatings on the Î²-Type Titanium Alloys with Different Sintering Parameters using Sol-Gel Method. Protection of Metals and Physical Chemistry of Surfaces, 2018, 54, 457-462.	0.3	31
43	Osteoanabolic Implant Materials for Orthopedic Treatment. Advanced Healthcare Materials, 2016, 5, 1740-1752.	3.9	29
44	Correlation of High-temperature Steam Oxidation with Hydrogen Dissolution in Pure Iron and Ternary High-chromium Ferritic Steel. ISIJ International, 2005, 45, 1066-1072.	0.6	28
45	Effect of Deformation-Induced ω Phase on the Mechanical Properties of Metastable β-Type Ti–V Alloys. Materials Transactions, 2012, 53, 1379-1384.	0.4	28
46	Improvement in fatigue strength while keeping low Young's modulus of a Î²-type titanium alloy through yttrium oxide dispersion. Materials Science and Engineering C, 2012, 32, 542-549.	3.8	28
47	Effect of alloying elements on microstructural evolution in oxygen content controlled Ti-29Nb-13Ta-4.6Zr (wt%) alloys for biomedical applications during aging. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 709, 312-321.	2.6	28
48	Abnormal Deformation Behavior of Oxygen-Modified Î²-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
49	Fatigue characteristics of a biomedical Î²-type titanium alloy with titanium boride. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 640, 154-164.	2.6	26
50	Microstructural evolution and mechanical properties of biomedical Coâ€"Crâ€"Mo alloy subjected to high-pressure torsion. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 59, 226-235.	1.5	26
51	Developing biomedical nano-grained Î²-type titanium alloys using high pressure torsion for improved cell adherence. RSC Advances, 2016, 6, 7426-7430.	1.7	25
52	Improvements in the Superelasticity and Change in Deformation Mode of Î²-Type TiNb24Zr2 Alloys Caused by Aging Treatments. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2843-2849.	1.1	23
53	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
54	Development of low-Youngâ€™s modulus Tiâ€"Nb-based alloys with Cr addition. Journal of Materials Science, 2019, 54, 8675-8683.	1.7	22

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55	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
56	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.	2.6	21
57	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
58	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
59	Effects of TiB on the mechanical properties of Tiâ€“29Nbâ€“13Taâ€“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
60	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
61	Microstructural factors determining mechanical properties of laser-welded Tiâ€“4.5Alâ€“2.5Crâ€“1.2Feâ€“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
62	Enhancement of adhesive strength of hydroxyapatite films on Tiâ€“29Nbâ€“13Taâ€“4.6Zr by surface morphology control. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 18, 232-239.	1.5	19
63	Development of High Modulus Ti–Fe–Cu Alloys for Biomedical Applications. Materials Transactions, 2013, 54, 574-581.	0.4	19
64	Electrochemical Surface Treatment of a Î²-titanium Alloy to Realize an Antibacterial Property and Bioactivity. Metals, 2016, 6, 76.	1.0	19
65	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
66	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.	2.6	18
67	Microstructural Changes During Plastic Deformation and Corrosion Properties of Biomedical Co-20Cr-15W-10Ni Alloy Heat-Treated at 873ÂK. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 2393-2404.	1.1	18
68	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
69	Improvement of Tensile and Fatigue Properties of β-Titanium Alloy while Maintaining Low Young’s Modulus through Grain Refinement and Oxygen Addition. Materials Transactions, 2013, 54, 2000-2006.	0.4	17
70	Adhesive strength of medical polymer on anodic oxide nanostructures fabricated on biomedical Î²-type titanium alloy. Materials Science and Engineering C, 2014, 36, 244-251.	3.8	17
71	Wear transition of solid-solution-strengthened Tiâ€“29Nbâ€“13Taâ€“4.6Zr alloys by interstitial oxygen for biomedical applications. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 51, 398-408.	1.5	17
72	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

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73	Mechanism of unique hardening of dental Agâ€"Pdâ€"Auâ€"Cu alloys in relation with constitutional phases. Journal of Alloys and Compounds, 2012, 519, 15-24.	2.8	16
74	Microstructure and fatigue behaviors of a biomedical Tiâ€"Nbâ€"Taâ€"Zr alloy with trace CeO 2 additions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 619, 112-118.	2.6	16
75	In vitro biocompatibility of Tiâ€"Mg alloys fabricated by direct current magnetron sputtering. Materials Science and Engineering C, 2015, 54, 1-7.	3.8	16
76	Synchronous improvement in strength and ductility of biomedical Coâ€"Crâ€"Mo alloys by unique low-temperature heat treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 739, 53-61.	2.6	16
77	Frictional wear characteristics of biomedical Tiâ€"29Nbâ€"13Taâ€"4.6Zr alloy with various microstructures in air and simulated body fluid. Biomedical Materials (Bristol), 2007, 2, S167-S174.	1.7	15
78	Differences in Wear Behaviors at Sliding Contacts for β-Type and (α +) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 547 T 56, 317-326.	0.4	15
79	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
80	Grain Refinement Mechanism and Evolution of Dislocation Structure of Coâ€"Crâ€"Mo Alloy Subjected to High-Pressure Torsion. Materials Transactions, 2016, 57, 1109-1118.	0.4	15
81	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
82	Specific characteristics of mechanically and biologically compatible titanium alloy rods for use in spinal fixation applications. Materials Letters, 2012, 86, 178-181.	1.3	14
83	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.	0.4	14
84	Bending springback behavior related to deformation-induced phase transformations in Tiâ€"12Cr and Tiâ€"29Nbâ€"13Taâ€"4.6Zr alloys for spinal fixation applications. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 34, 66-74.	1.5	13
85	Hydrogen Dissolution into 10% Chromium Ferritic Steels during High-Temperature Steam Oxidation. Materials Transactions, 2005, 46, 69-73.	0.4	12
86	Improvement in steam oxidation resistance of Feâ€"10%Crâ€"0.08%C steel by suppressing hydrogen dissolution. Corrosion Science, 2006, 48, 3869-3885.	3.0	12
87	Relationship between Unique Hardening Behavior and Microstructure of Dental Silver Alloy Subjected to Solution Treatment. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2010, 74, 337-344.	0.2	12
88	Mechanical Properties of Implant Rods made of Low-Modulus Î²-Type Titanium Alloy, Ti-29Nb-13Ta-4.6Zr, for Spinal Fixture. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2008, 72, 674-678.	0.2	11
89	Fabrication of Hydroxyapatite Film on Ti-29Nb-13Ta-4.6Zr Using a MOCVD Technique. Materials Transactions, 2010, 51, 2277-2283.	0.4	11
90	Heterogeneous grain refinement of biomedical Tiâ€"29Nbâ€"13Taâ€"4.6Zr alloy through high-pressure torsion. Scientia Iranica, 2013, 20, 1067-1067.	0.3	11

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91	The Ti3.6Nb1.0Ta0.2Zr0.2 coating on anodized aluminum by PVD: A potential candidate for short-time biomedical applications. Vacuum, 2021, 192, 110450.	1.6	11
92	Facile formation with HA/Srâ€“GO-based composite coatings via green hydrothermal treatment on Î²-type TiNbTaZr alloys: Morphological and electrochemical insights. Journal of Materials Research, 2022, 37, 2512-2524.	1.2	11
93	Microstructure and mechanical properties of Tiâ€“Nbâ€“Feâ€“Zr alloys with high strength and low elastic modulus. Transactions of Nonferrous Metals Society of China, 2022, 32, 503-512.	1.7	11
94	White-Ceramic Conversion on Ti-29Nb-13Ta-4.6Zr Surface for Dental Applications. Advances in Materials Science and Engineering, 2013, 2013, 1-9.	1.0	10
95	Effect of heterogeneous precipitation caused by segregation of substitutional and interstitial elements on mechanical properties of a Î²-type Ti alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 643, 109-118.	2.6	10
96	Calcium phosphate coating of biomedical titanium alloys using metalâ€“organic chemical vapour deposition. Materials Technology, 2015, 30, B8-B12.	1.5	10
97	Optimization of Microstructure and Mechanical Properties of Coâ€“Crâ€“Mo Alloys by High-Pressure Torsion and Subsequent Short Annealing. Materials Transactions, 2016, 57, 1887-1896.	0.4	10
98	Nanostructure Of Î²-type Titanium Alloys Through Severe Plastic Deformation. Advanced Materials Letters, 2014, 5, 378-383.	0.3	10
99	Effect of Silane Coupling Treatment on Mechanical Properties of Porous Pure Titanium Filled with PMMA for Biomedical Applications. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2008, 72, 839-845.	0.2	9
100	Effects of Thermomechanical Treatments on Pseudoelastic Strain Characteristics of Ti-29Nb-13Ta-4.6Zr for Biomedical Applications. Materials Transactions, 2009, 50, 1704-1712.	0.4	9
101	Formation of L10-type ordered Î²â€² phase in as-solutionized dental Agâ€“Pdâ€“Auâ€“Cu alloys and hardening behavior. Materials Science and Engineering C, 2012, 32, 503-509.	3.8	9
102	Low Youngâ€™s Modulus Tiâ€“Nbâ€“O with High Strength and Good Plasticity. Materials Transactions, 2018, 59, 858-860.	0.4	9
103	Invar Properties in Ti-Alloys Achieved Through Alloy Design and Thermomechanical Treatments. Jom, 2019, 71, 3631-3639.	0.9	9
104	Effect of Oxygen Content on Microstructure and Mechanical Properties of Ti-29Nb-13Ta-4.6Zr Alloy for Biomedical Applications. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2008, 72, 960-964.	0.2	8
105	Heterogeneous Î± Phase Precipitation and Peculiar Aging Strengthening in Biomedical Î²-Type Ti-Nb-Ta-Zr Alloy Having Vortical Structure. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2011, 75, 198-206.	0.2	8
106	Microstructure and Mechanical Properties of a Biomedical Î²-Type Titanium Alloy Subjected to Severe Plastic Deformation after Aging Treatment. Key Engineering Materials, 0, 508, 152-160.	0.4	8
107	Research and Development of Low-Cost Titanium Alloys for Biomedical Applications. Key Engineering Materials, 0, 551, 133-139.	0.4	8
108	Tensile and Fatigue Properties of Carbon-Solute-Strengthened (α+β)-Type Titanium Alloy. Materials Transactions, 2013, 54, 169-175.	0.4	8

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109	A review of surface modification of a novel low modulus Î²-type titanium alloy for biomedical applications. International Journal of Surface Science and Engineering, 2014, 8, 138.	0.4	8
110	Enhancing the durability of spinal implant fixture applications made of Ti-6Al-4V ELI by means of cavitation peening. International Journal of Fatigue, 2016, 92, 360-367.	2.8	8
111	High-cycle fatigue properties of an easily hot-workable (Î±+Î²)-type titanium alloy butt joint prepared by friction stir welding below Î² transus temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 742, 553-563.	2.6	8
112	Effect of Impurity Sulfur on the Formation of Cr₂O₃ and SiO₂ at the Early Stage of Steam Oxidation in both Ferittic and Austenitic Steels. Materials Transactions, 2003, 44, 1830-1838.	0.4	7
113	Relationship between High Temperature Steam Oxidation Resistance of Fe-Cr Alloys and the Dissolved Hydrogen Originated from the Steam. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2007, 71, 68-75.	0.2	7
114	Characteristics of Biomedical Beta-Type Titanium Alloy Subjected to Coating. Materials Transactions, 2008, 49, 365-371.	0.4	7
115	Improvement of adhesive strength of segmented polyurethane on Tiâ€"29Nbâ€"13Taâ€"4.6Zr alloy through H₂O₂ treatment for biomedical applications. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2013, 101B, 776-783.	1.6	7
116	Adhesive strength of bioactive oxide layers fabricated on TNTZ alloy by three different alkali-solution treatments. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 61, 174-181.	1.5	7
117	Corrosion resistance of new beta type titanium alloy, Ti-29Nb-13Ta-4.6Zr in artificial saliva solution. IOP Conference Series: Materials Science and Engineering, 2018, 352, 012008.	0.3	7
118	Improvement of Mechanical Properties by Microstructural Evolution of Biomedical Coâ€"Crâ€"Wâ€"Ni Alloys with the Addition of Mn and Si. Materials Transactions, 2021, 62, 229-238.	0.4	7
119	Effects of Alloying Elements on Hard Ceramic Layer Formation on Surfaces of Biomedical Ti-29Nb-13Ta-4.6Zr and Ti-6Al-4V ELI during Gas Nitriding. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2007, 71, 415-422.	0.2	6
120	Bending Fatigue and Spring Back Properties of Implant Rods Made of Î²-Type Titanium Alloy for Spinal Fixture. Advanced Materials Research, 0, 89-91, 400-404.	0.3	6
121	Effect of high-pressure torsion processing on microstructure and mechanical properties of a novel biomedical Î²-type Ti-29Nb-13Ta-4.6Zr after cold rolling. International Journal of Microstructure and Materials Properties, 2012, 7, 168.	0.1	6
122	Effect of Oxide Particles Formed through Addition of Rare-Earth Metal on Mechanical Properties of Biomedical β-Type Titanium Alloy. Materials Transactions, 2013, 54, 1361-1367.	0.4	6
123	Low Youngâ€™s Modulus and High Strength Obtained in Ti-Nb-Zr-Cr Alloys by Optimizing Zr Content. Journal of Materials Engineering and Performance, 2020, 29, 2871-2878.	1.2	6
124	Effect of Medical Polymer Filling on Tensile Properties of Biomedical Porous Pure Titanium. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2008, 55, 312-317.	0.1	6
125	Mass Loss of Cr₂O₃ during Exposure to Steam at 923 K and Its Suppression by Sulfur Doping. Materials Transactions, 2002, 43, 1258-1259.	0.4	5
126	Beneficial Effect of Impurity Sulfur on High-Temperature Steam Oxidation of High Chromium Ferritic Steels. Materials Science Forum, 2006, 522-523, 147-154.	0.3	5

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127	Fretting-Fatigue Properties and Fracture Mechanism of Semi-Precious Alloy for Dental Applications. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2008, 72, 63-71.	0.2	5
128	Dental Precision Casting of Ti-29Nb-13Ta-4.6Zr Using Calcia Mold. Materials Transactions, 2009, 50, 2057-2063.	0.4	5
129	Titanium Alloys for Spinal Fixation Devices. Materia Japan, 2010, 49, 437-440.	0.1	5
130	Effect of Y₂O₃ on Mechanical Properties of Ti-29Nb-13Ta-4.6Zr for Biomedical Applications. Materials Science Forum, 2010, 654-656, 2138-2141.	0.3	5
131	High mechanical functionalization of Tiâ€“Alâ€“Crâ€“Feâ€“C system alloy for next-generation aircraft applications through microstructural control. Keikinzoku/Journal of Japan Institute of Light Metals, 2011, 61, 705-710.	0.1	5
132	Unusual Effect of Oxygen on the Mechanical Behavior of a Î²-Type Titanium Alloy Developed for Biomedical Applications. Materials Science Forum, 0, 706-709, 135-142.	0.3	5
133	Contribution of Î²â€² and Î² precipitates to hardening in as-solutionized Agâ€“20Pdâ€“12Auâ€“14.5Cu alloys for dental prosthesis applications. Materials Science and Engineering C, 2014, 37, 204-209.	3.8	5
134	Low Springback and Low Youngâ€™s Modulus in Tiâ€“29Nbâ€“13Taâ€“4.6Zr Alloy Modified by Mo Addition. Materials Transactions, 2019, 60, 1755-1762.	0.4	5
135	Effects of Fe on Microstructures and Mechanical Properties of Tiâ€“15Nbâ€“25Zrâ€“(0, 2, 4, 8)Fe Alloys Prepared by Spark Plasma Sintering. Materials Transactions, 2019, 60, 1763-1768.	0.4	5
136	Beneficial Effect of Sulfur State on High-Temperature Steam Oxidation Resistance in High Chromium Ferritic Steels. Materials Transactions, 2004, 45, 865-869.	0.4	4
137	Quality Improvement of a β-Type Titanium Alloy Cast for Biomedical Applications by Using a Clacia Mold. Materials Transactions, 2010, 51, 128-135.	0.4	4
138	Effect of Oxygen Addition on Isothermal Omega Phase Stability in Ti-29Nb-13Ta-4.6Zr. Materials Science Forum, 2010, 654-656, 2134-2137.	0.3	4
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