Shuji Hanada

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/480823/publications.pdf

Version: 2024-02-01

242 papers	8,271 citations	50276 46 h-index	71685 76 g-index
244 all docs	244 docs citations	244 times ranked	3724 citing authors

#	Article	IF	Citations
1	Mechanical properties of porous titanium compacts prepared by powder sintering. Scripta Materialia, 2003, 49, 1197-1202.	5.2	496
2	Beta TiNbSn Alloys with Low Young’s Modulus and High Strength. Materials Transactions, 2005, 46, 1070-1078.	1.2	285
3	Beta Ti Alloys with Low Young's Modulus. Materials Transactions, 2004, 45, 2776-2779.	1.2	265
4	Effect of Heat Treatment and Sn Content on Superelasticity in Biocompatible TiNbSn Alloys. Materials Transactions, 2002, 43, 2978-2983.	1.2	256
5	The bone tissue compatibility of a new Tiâ€“Nbâ€“Sn alloy with a low Youngâ€™s modulus. Acta Biomaterialia, 2011, 7, 2320-2326.	8.3	195
6	Microstructures and mechanical properties of metastable Î² TiNbSn alloys cold rolled and heat treated. Journal of Alloys and Compounds, 2007, 439, 146-155.	5.5	166
7	Transmission electron microscopic observations of mechanical twinning in metastable beta titanium alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1986, 17, 1409-1420.	1.4	164
8	Microstructure and room temperature fracture toughness of Nbss/Nb5Si3 in situ composites. Intermetallics, 2001, 9, 827-834.	3.9	133
9	Deformation characteristics in Î' phase Ti-Nb alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1985, 16, 789-795.	1.4	112
10	The effect of scandium addition on microstructure and mechanical properties of Alâ€“Siâ€“Mg alloy: A multi-refinement modifier. Materials Characterization, 2015, 110, 160-169.	4.4	110
11	Oxidation behavior of Mo5SiB2-based alloy at elevated temperatures. Intermetallics, 2002, 10, 407-414.	3.9	105
12	Microstructure and high temperature strength at 1773 K of Nbss/Nb5Si3 composites alloyed with molybdenum. Intermetallics, 2002, 10, 625-634.	3.9	103
13	Effects of Cu content and Cu/Mg ratio on the microstructure and mechanical properties of Alâ€“Siâ€“Cuâ€“Mg alloys. Journal of Alloys and Compounds, 2015, 649, 291-296.	5.5	101
14	Microstructures and Mechanical Properties of Porous Titanium Compacts Prepared by Powder Sintering. Materials Transactions, 2002, 43, 443-446.	1.2	100
15	Grain boundary fracture of L12 type intermetallic compound Ni3Ai. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1985, 16, 441-443.	1.4	99
16	Slip Modes in B2-Type Intermetallic Alloys. Materials Transactions, JIM, 1990, 31, 435-442.	0.9	96
17	Deformability improvement in C15 NbCr2 intermetallics by addition of ternary elements. Acta Materialia, 1996, 44, 669-674.	7.9	94
18	Application of the selected area channeling pattern method to the study of intergranular fracture in Ni3Al. Acta Metallurgica, 1986, 34, 13-21.	2.1	90

#	Article	IF	Citations
19	Fabrication of pure Al/Mgâ€“Li alloy clad plate and its mechanical properties. Journal of Materials Processing Technology, 2005, 169, 9-15.	6.3	90
20	The synergic effects of Sc and Zr on the microstructure and mechanical properties of Alâ€“Siâ€“Mg alloy. Materials and Design, 2015, 88, 485-492.	7.0	90
21	Martensite transformation temperatures and mechanical properties of ternary NiTi alloys with offstoichiometric compositions. Intermetallics, 1998, 6, 291-301.	3.9	85
22	Yielding and plastic flow behavior of B2-type Fe-39.5 mol.% A1 single crystals in compression. Acta Metallurgica Et Materialia, 1995, 43, 4141-4151.	1.8	81
23	Effect of Zr, Sn and Al Additions on Deformation Mode and Beta Phase Stability of Metastable Beta Ti Alloys.. ISIJ International, 1991, 31, 807-813.	1.4	79
24	High temperature strength, fracture toughness and oxidation resistance of Nbâ€“Siâ€“Alâ€“Ti multiphase alloys. Science and Technology of Advanced Materials, 2002, 3, 145-156.	6.1	79
25	Effect of stress-induced Î±â€³ martensite on Young's modulus of Î² Tiâ€“33.6Nbâ€“4Sn alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 588, 403-410.	5.6	74
26	Deformation behaviour of retained ? phase in?-eutectoid Ti-Cr alloys. Journal of Materials Science, 1986, 21, 4131-4139.	3.7	73
27	Composition dependence of youngâ€™s modulus in Ti-V, Ti-Nb, and Ti-V-Sn alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2006, 37, 3239-3249.	2.2	72
28	High-temperature strength and room-temperature toughness of Nbâ€“Wâ€“Siâ€“B alloys prepared by arc-melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 364, 151-158.	5.6	71
29	Mechanical properties of As-cast and directionally solidified Nb-Mo-W-Ti-Si in-situ composites at high temperatures. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 85-94.	2.2	70
30	Microstructure and room temperature deformation of Nbss/Nb5Si3 in situ composites alloyed with Mo. Intermetallics, 2001, 9, 521-527.	3.9	67
31	Effect of Plastic Deformation Modes on Tensile Properties of Beta Titanium Alloys. Transactions of the Japan Institute of Metals, 1986, 27, 496-503.	0.5	66
32	Î±â€² Martensite Tiâ€“Vâ€“Sn alloys with low Young's modulus and high strength. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 448, 39-48.	5.6	62
33	Mechanical properties and fracture behavior of an NbSS/Nb5Si3 in-situ composite modified by Mo and Hf alloying. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 372, 137-144.	5.6	61
34	Deformation of Fe3Al single crystals at high temperatures. Scripta Metallurgica, 1981, 15, 1345-1348.	1.2	59
35	Effect of carbon on microstructure and high-temperature strength of Nbî—¸Moî—¸Tiî—¸Si in situ composites prepared by arc-melting and directional solidification. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 343, 282-289.	5.6	58
36	Mechanical properties of porous Tiâ€“15Moâ€“5Zrâ€“3Al compacts prepared by powder sintering. Materials Science and Engineering C, 2005, 25, 330-335.	7.3	58

#	Article	IF	Citations
37	Mechanical properties and microstructures of Î² Tiâ€“25Nbâ€“11Sn ternary alloy for biomedical applications. Materials Science and Engineering C, 2013, 33, 1629-1635.	7.3	58
38	Microstructure and oxidation resistance of a plasma sprayed Moâ€“Siâ€“B multiphase alloy coating. Intermetallics, 2003, 11, 735-742.	3.9	54
39	Ductilization of Ni3Al by macroalloying with Pd. Acta Metallurgica Et Materialia, 1991, 39, 1799-1805.	1.8	53
40	High temperature strength of Nb3Al-base alloys. Intermetallics, 1998, 6, 735-739.	3.9	52
41	Deformation of metastable betaTi-15Mo-5Zr alloy single crystals. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1980, 11, 1447-1452.	1.4	49
42	Tensile properties of B2-type Fe-39mol%Al single crystals at elevated temperatures. Intermetallics, 1996, 4, 159-168.	3.9	49
43	Relation between ductility and grain boundary character distributions in Ni3Al. Acta Metallurgica Et Materialia, 1994, 42, 1733-1738.	1.8	48
44	Toughness and strength characteristics of Nb-W-Si ternary alloys prepared by Arc melting. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 2861-2871.	2.2	48
45	Superplasticity in a Recrystallized Ni₃Al Polycrystal Doped with Boron. Materials Transactions, JIM, 1989, 30, 77-85.	0.9	46
46	Site occupation determination of Pd in Ni3Al by ALCHEMI. Acta Metallurgica Et Materialia, 1991, 39, 13-18.	1.8	46
47	Superplastic deformation in Ni3(Si, Ti) alloys. Acta Metallurgica Et Materialia, 1992, 40, 1895-1906.	1.8	46
48	Potential of IrAl base alloys as ultrahigh-temperature smart coatings. Intermetallics, 2000, 8, 1081-1090.	3.9	46
49	Improving stress shielding following total hip arthroplasty by using a femoral stem made of Î² type Ti-33.6Nb-4Sn with a Youngâ€™s modulus gradation. Journal of Biomechanics, 2017, 63, 135-143.	2.1	46
50	Self-accomodation and morphology of 14M (7R) martensites in an Niî—¸370at.%Al alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 189, 191-199.	5.6	42
51	The Mode of Plastic Deformation of β Ti–V Alloys. Transactions of the Japan Institute of Metals, 1982, 23, 507-517.	0.5	41
52	Microstructure and mechanical properties of Al2O3/Y3Al5O12/ZrO2 ternary eutectic materials. Journal of the European Ceramic Society, 2005, 25, 1411-1417.	5.7	41
53	Fabrication of a high-performance hip prosthetic stem using Î² Tiâ€“33.6Nbâ€“4Sn. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 30, 140-149.	3.1	41
54	Composition Dependence of Young's Modulus in Beta Titanium Binary Alloys. Materials Science Forum, 2003, 426-432, 3103-3108.	0.3	40

#	Article	IF	Citations
55	Influences of Al content and secondary phase of Mo5(Si,Al)3 on the oxidation resistance of Al-rich Mo(Si,Al)2-base composites. Intermetallics, 2003, 11, 721-733.	3.9	39
56	Synthesis of Moâ€“Siâ€“B in situ composites by mechanical alloying. Journal of Alloys and Compounds, 2007, 434-435, 420-423.	5.5	39
57	High strength aluminum cast alloy: A Sc modification of a standard Alâ€“Siâ€“Mg cast alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 604, 122-126.	5.6	39
58	Environmental embrittlement and grain boundary segregation of boron in Ni3(Si,Ti) and Co3Ti alloys. Scripta Metallurgica Et Materialia, 1993, 29, 1587-1591.	1.0	38
59	Environmental embrittlement of Î³ titanium aluminide. Journal of Materials Research, 1992, 7, 2739-2746.	2.6	37
60	Improvement in ductility of Ni3Al by Î³ former doping. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1992, 152, 108-113.	5.6	37
61	Niobium aluminides. Current Opinion in Solid State and Materials Science, 1997, 2, 279-283.	11.5	37
62	Effect of alloy composition on microstructure and high temperature properties of Nbâ€“Zrâ€“C ternary alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 341, 282-288.	5.6	36
63	Effect of Alloy Chemistry on the High Temperature Strengths and Room Temperature Fracture Toughness of Advanced Nb-Based Alloys. Materials Transactions, 2004, 45, 493-501.	1.2	36
64	Microstructures and bond strengths of plasma-sprayed hydroxyapatite coatings on porous titanium substrates. Journal of Materials Science: Materials in Medicine, 2005, 16, 635-640.	3.6	36
65	Effects of substitution of Al for Si on the lattice variations and thermal expansion of Mo(Si,Al) 2. Intermetallics, 2004, 12, 33-41.	3.9	35
66	In-vitro biomechanical evaluation of stress shielding and initial stability of a low-modulus hip stem made of Î² type Ti-33.6Nb-4Sn alloy. Medical Engineering and Physics, 2014, 36, 1665-1671.	1.7	35
67	Recrystallization in cold-rolled pure nickel. Acta Metallurgica, 1988, 36, 403-412.	2.1	34
68	Orientation Dependence of Twinning in Commercially Pure Titanium. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1990, 54, 976-984.	0.4	34
69	Effect of Î³ and Î³ â€² former doping on ductility of Ni3Al. Scripta Metallurgica Et Materialia, 1991, 25, 303-307.	1.0	34
70	Effect of APB type on tensile properties of Cr added Fe3Al with D03 structure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 194, 53-61.	5.6	34
71	Effect of composition on hydrogen absorbing properties in binary TiMn2 based alloys. Journal of Alloys and Compounds, 2003, 352, 210-217.	5.5	34
72	Effect of Sc and Sr on the Eutectic Si Morphology and Tensile Properties of Al-Si-Mg Alloy. Journal of Materials Engineering and Performance, 2017, 26, 1605-1613.	2.5	34

#	Article	IF	Citations
73	Crystallography of Stress-Induced B2→7R Martensitic Transformation in a Ni-37.0 at%Al Alloy. Materials Transactions, JIM, 1992, 33, 282-288.	0.9	33
74	Microstructures and Mechanical Properties of Porosity-Graded Pure Titanium Compacts. Materials Transactions, 2003, 44, 657-660.	1.2	32
75	Effect of carbon on the tensile properties of Nbâ€“Moâ€“W alloys at 1773 K. Journal of Alloys and Compounds, 2002, 333, 170-178.	5.5	31
76	Determination of site occupation probability of Cu in Ni3Al by atom-probe field ion microscopy. Acta Metallurgica Et Materialia, 1992, 40, 419-425.	1.8	30
77	Vacancy clustering and relaxation behavior in rapidly solidified B2 FeAl ribbons. Acta Materialia, 2005, 53, 3751-3764.	7.9	30
78	Photo-induced properties of anodic oxide films on Ti6Al4V. Thin Solid Films, 2012, 520, 4956-4964.	1.8	30
79	Effect of swaging on Young×³s modulus of Î² Tiâ€“33.6Nbâ€“4Sn alloy. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 32, 310-320.	3.1	30
80	Microstructure and formation mechanism of grain-refining particles in Al-Ti-C-RE grain refiners. Journal of Rare Earths, 2015, 33, 553-560.	4.8	30
81	Plasticity of β-brass Single Crystals at Low Temperatures. Transactions of the Japan Institute of Metals, 1975, 16, 453-461.	0.5	29
82	Plastic deformation mode of retained? phase in?-eutectoid Ti-Fe alloys. Journal of Materials Science, 1986, 21, 866-870.	3.7	29
83	Stress asymmetry of stoichiometric NiAl single crystals. Acta Metallurgica Et Materialia, 1993, 41, 1021-1031.	1.8	28
84	Transmission electron microscopic observation of thermally introduced planar faults in Fe-35 mol.% Al alloys. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1996, 73, 443-456.	0.6	28
85	Solid-Solution Strengthening and High-Temperature Compressive Strength of Nb-X Alloys (X=Ta, V, Mo) Tj ETQq1 1 0.784314 rgBT /O	0.4	28
86	Determination of density and vacancy concentration in rapidly solidified FeAl ribbons. Intermetallics, 2003, 11, 707-711.	3.9	28
87	Effect of Frozen-in Vacancies on Hardness and Tensile Properties of Polycrystalline B2 FeAl. Materials Transactions, JIM, 1994, 35, 51-57.	0.9	27
88	Microstructure and mechanical properties of Nb/Nb5Si3 in situ composites in Nbâ€“Moâ€“Si and Nbâ€“Wâ€“Si systems. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 386, 375-383.	5.6	27
89	The temperature and orientation dependence of tensile deformation and fracture in NiAl single crystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1992, 149, 183-193.	5.6	26
90	Anomalous elongation behavior of stoichiometric NiAl single crystals at intermediate temperatures. Acta Metallurgica Et Materialia, 1993, 41, 1009-1020.	1.8	26

#	Article	IF	Citations
91	Effects of Al-Ti-B-RE grain refiner on microstructure and mechanical properties of Al-7.0Si-0.55Mg alloy. Transactions of Nonferrous Metals Society of China, 2014, 24, 2244-2250.	4.2	26
92	Environmental embrittlement and grain boundary segregation of boron and carbon in Ni3(Si, Ti) alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 192-193, 407-412.	5.6	25
93	Synthesis and high temperature oxidation of Mo-Si-B-O pseudo in situ composites. Science and Technology of Advanced Materials, 2002, 3, 181-192.	6.1	25
94	Effect of Low Temperature Aging on Superelastic Behavior in Biocompatible β TiNbSn Alloy. Materials Transactions, 2007, 48, 3007-3013.	1.2	25
95	Anisotropy of Young's modulus and tensile properties in cold rolled Î±â€² martensite Tiâ€“Vâ€“Sn alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 486, 503-510.	5.6	25
96	Effect of hot extrusion and subsequent T6 treatment on the microstructure evolution and tensile properties of an Al-6Si-2Cu-0.5Mg alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 710, 102-110.	5.6	25
97	High temperature mechanical properties of Cr₂Nb-based intermetallics. Journal of Materials Research, 1993, 8, 3069-3077.	2.6	24
98	Phase Equilibria in Nb–Mo-Rich Zone of the Nb–Si–Mo Ternary System. Materials Transactions, JIM, 2000, 41, 1329-1336.	0.9	24
99	Microstructures and fracture toughness of directionally solidified Mo-ZrC eutectic composites. Science and Technology of Advanced Materials, 2002, 3, 137-143.	6.1	24
100	Strength and fracture of single-crystalline Ni3(Al,Ti) and Ni3(Al,Ta) intermetallic compounds at 290 K. Acta Metallurgica, 1988, 36, 2615-2626.	2.1	23
101	A new fabrication process of TiNi shape memory wire. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1993, 161, 91-96.	5.6	23
102	Environmental Embrittlement of Ni₃(Si, Ti) Single Crystals. Materials Transactions, JIM, 1993, 34, 775-785.	0.9	23
103	High-temperature deformation of Nb3Al alloys. Intermetallics, 1994, 2, 155-165.	3.9	23
104	High temperature strength and room temperature fracture toughness of Nbâ€“Moâ€“W refractory alloys with and without carbide dispersoids. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 346, 65-74.	5.6	23
105	Apatite Formation and Biocompatibility of a Low Youngâ€™s Modulus Ti-Nb-Sn Alloy Treated with Anodic Oxidation and Hot Water. PLoS ONE, 2016, 11, e0150081.	2.5	23
106	Improved Osseointegration of a TiNbSn Alloy with a Low Youngâ€™s Modulus Treated with Anodic Oxidation. Scientific Reports, 2019, 9, 13985.	3.3	23
107	On lattice defects and strength anomaly of B2-type FeAl. Intermetallics, 1996, 4, S159-S169.	3.9	22
108	Ductile-phase toughening and fatigue crack growth in Nb3Al base alloys. Scripta Materialia, 1996, 34, 999-1003.	5.2	22

#	Article	IF	Citations
109	Suppression of environmental embrittlement of Ni3(Si,Ti) alloys by shot peening. Scripta Materialia, 1996, 34, 1131-1138.	5.2	22
110	Deformation behavior of Mo5Si3 single crystal at high temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 329-331, 228-234.	5.6	22
111	Low Young's modulus of cold groove-rolled Î² Tiâ€“Nbâ€“Sn alloys for orthopedic applications. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 802, 140645.	5.6	22
112	{111} cracking of Ni3Al. Scripta Metallurgica, 1987, 21, 277-281.	1.2	21
113	Effect of Grain Size on Strength, Ductility and Fracture in Recrystallized Ni₃Al Doped with Boron. Transactions of the Japan Institute of Metals, 1988, 29, 274-283.	0.5	21
114	The boron effect on the superplastic deformation of Ni3(Si,Ti) alloys. Scripta Metallurgica Et Materialia, 1991, 25, 889-894.	1.0	21
115	Effects of Boron and Carbon Additions on Environmental Embrittlement of a Ni₃(Si, Ti) Alloy at Ambient Temperature. Materials Transactions, JIM, 1995, 36, 30-35.	0.9	21
116	Microstructure and high-temperature deformation of the C15 NbCr₂-based Laves intermetallics in Nbâ€“Crâ€“V alloy system. Journal of Materials Research, 1995, 10, 2463-2470.	2.6	21
117	Deformation twinning systems of D019 structured Ti-34mol% Al. Scripta Metallurgica Et Materialia, 1995, 33, 509-514.	1.0	21
118	Effect of microstructure on hydrogen pulverization of two phase alloys. Intermetallics, 1998, 6, 61-69.	3.9	21
119	Synthesis of Nb/Nb₅Si₃ <I>in-situ</I> Composites by Mechanical Milling and Reactive Spark Plasma Sintering. Materials Transactions, JIM, 2000, 41, 719-726.	0.9	21
120	Tensile property and fracture behavior of hot-rolled CoTi intermetallic compound. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 302, 215-221.	5.6	21
121	Laminates based on an iron aluminide intermetallic alloy and a CrMo steel. Intermetallics, 2005, 13, 717-726.	3.9	21
122	A new concept of hip joint stem and its fabrication using metastable TiNbSn alloy. Journal of Alloys and Compounds, 2012, 536, S582-S585.	5.5	21
123	A model for strength anomaly in IVa-VIII B2 ordered intermetallics. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1995, 71, 347-358.	0.6	20
124	Effect of environment on tensile ductility and fracture toughness of iron aluminides. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 222, 133-139.	5.6	20
125	Microstructure control and compressive strength of 10mol% Ti-bearing Nb3Al/Nbss in-situ composites. Intermetallics, 1999, 7, 807-819.	3.9	20
126	Microstructure and properties of iron aluminum alloy/CrMo steel composite prepared by clad rolling. Journal of Alloys and Compounds, 2004, 379, 272-279.	5.5	20

#	Article	IF	Citations
127	Corrosion behavior of ironâ€“aluminum alloys and its composite steel in sulfuric acid. Corrosion Science, 2006, 48, 829-839.	6.6	20
128	In-Situ Transmission Electron Microscopy Observation on the Phase Transformation of Ti-Nb-Sn Shape Memory Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 2820-2829.	2.2	20
129	Effect of cooling rate on morphology of primary particles in Al-Sc-Zr master alloy. Transactions of Nonferrous Metals Society of China, 2014, 24, 2420-2426.	4.2	20
130	Formation mechanisms of SISF-bounding dislocations in cold-rolled Ni₃Al. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1994, 69, 751-765.	0.6	19
131	Mechanical Properties of Nb-18Si-5Mo-5Hf-2C <I>In-Situ</I> Composite Prepared by Arc-Casting Method. Materials Transactions, 2002, 43, 2201-2204.	1.2	19
132	Nanoporous Surfaces of FeAl Formed by Vacancy Clustering. Materials Transactions, 2002, 43, 2897-2902.	1.2	19
133	XPS Study of Corrosion Behavior of Ti-18Nb-4Sn Shape Memory Alloy in a 0.05 mass% HCl Solution. Materials Transactions, 2003, 44, 1405-1411.	1.2	19
134	Photo-induced characteristics of a Tiâ€“Nbâ€“Sn biometallic alloy with low Young's modulus. Thin Solid Films, 2010, 519, 276-283.	1.8	19
135	The influence of chromium addition on the environmental embrittlement of Ni3(Si,Ti) alloys at ambient temperatures. Scripta Metallurgica Et Materialia, 1995, 32, 1025-1029.	1.0	18
136	Dislocation stability and deformation mechanisms of iron aluminides and silicide. Acta Materialia, 1999, 47, 3579-3588.	7.9	18
137	Effect of Cr Addition on Microstructure and Mechanical Properties in Nb-Si-Mo Base Multiphase Alloys. Materials Transactions, 2002, 43, 3254-3261.	1.2	18
138	Orientation Dependence of Yield Stress and Operative Slip Systems of Î²-CuZn Single Crystals at Low Temperatures. Physica Status Solidi A, 1977, 40, 589-598.	1.7	17
139	Deformation and Fracture of Metastable Beta Titanium Alloys (Ti–15Mo–5Zr and) Tj ETQq1 1 0.784314 rgBT /O 23, 85-94.	0.5	17
140	Flow behavior and microstructure of Co3Ti intermetallic alloy during superplastic deformation. Acta Materialia, 1998, 46, 3593-3604.	7.9	17
141	Microstructure and Oxidation Behavior of Low Pressure Plasma Sprayed Iron Aluminides.. ISIJ International, 2001, 41, 1010-1017.	1.4	17
142	Formation and texture of Bi-2223 phase during sintering in high magnetic fields. Physica C: Superconductivity and Its Applications, 2003, 392-396, 453-457.	1.2	17
143	Deformation of Fe₃Al_{0.8}Si_{0.2} with DO₃ Structure. Transactions of the Japan Institute of Metals, 1981, 22, 873-881.	0.5	16
144	Correlation between Ductility and Ordering Energy of Ni₃Al. Materials Transactions, JIM, 1990, 31, 824-827.	0.9	16

#	Article	IF	Citations
145	The influence of constituent elements and atomic ordering on hydrogen embrittlement of Ni3Fe polycrystals. Intermetallics, 1994, 2, 225-232.	3.9	16
146	Dynamic Evolution of Microstructures in Superplastic Ni₃Al. Materials Transactions, JIM, 1995, 36, 1140-1148.	0.9	16
147	Slip band propagation and slip vector transition in B2 FeAl single crystals. Acta Materialia, 1998, 46, 5769-5776.	7.9	16
148	X-ray photoelectron spectroscopic study of ordered stoichiometric FeAl fractured in situ. Journal of Alloys and Compounds, 2006, 413, 239-243.	5.5	16
149	Fabrication of iron aluminum alloy/steel laminate by clad rolling. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2006, 37, 1665-1673.	2.2	16
150	Effects of intramedullary nails composed of a new Î²â€type Tiâ€Nbâ€Sn alloy with low Young's modulus on fracture healing in mouse tibiae. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 2841-2848.	3.4	16
151	Optimizing strength and ductility of Alâ€“7Siâ€“0.4â€¯Mg foundry alloy: Role of Cu and Sc addition. Journal of Alloys and Compounds, 2019, 810, 151944.	5.5	16
152	Bioactive TiNbSn alloy prepared by anodization in sulfuric acid electrolytes. Materials Science and Engineering C, 2019, 98, 753-763.	7.3	16
153	Orientation dependence of deformation and fracture behavior in Ni3(Al, Ti) single crystals at 973 K. Acta Metallurgica, 1988, 36, 2967-2978.	2.1	15
154	Microstructures and Mechanical Properties of Nb₃Al Produced from Nb–Al Alloy Powder. Materials Transactions, JIM, 1993, 34, 325-333.	0.9	15
155	Absorption and desorption of hydrogen in Fe-40Al intermetallic. Scripta Metallurgica Et Materialia, 1995, 32, 1719-1724.	1.0	15
156	Mechanical Properties of Mo–Nb–TiC <I>In-situ</I> Composites Synthesized by Hot-Pressing. Materials Transactions, JIM, 2000, 41, 1599-1604.	0.9	15
157	Effect of W Addition on Compressive Strength of Nb–10Mo–10Ti–18Si-Base <I>In-Situ</I> Composites. Materials Transactions, JIM, 2000, 41, 1125-1128.	0.9	15
158	Hydrogenation-induced fragmentation in Taâ€“Ni alloy. Journal of Alloys and Compounds, 2003, 359, 236-243.	5.5	15
159	Quenched-in vacancies in a Î² Tiâ€“Nbâ€“Sn alloy studied by positron lifetime spectroscopy. Scripta Materialia, 2006, 54, 1751-1753.	5.2	15
160	Deformability of Sendust Polycrystals. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1981, 45, 1293-1299.	0.4	14
161	Phase Compatibility and Superconductivity of Y-Ba-Cu-O Compounds. Japanese Journal of Applied Physics, 1988, 27, L1221-L1224.	1.5	14
162	Microstructure and Strength of NbCr₂/Cr <I>in-situ</I> Composites. Materials Transactions, JIM, 1997, 38, 155-162.	0.9	14

#	Article	IF	Citations
163	Microstructure and Creep of Mo–ZrC <I>In-situ</I> Composite. Materials Transactions, JIM, 2000, 41, 1164-1167.	0.9	14
164	Structural evolution during mechanical alloying and annealing of a Nb-25at%Al alloy. Journal of Materials Science, 2000, 35, 235-239.	3.7	14
165	Composition dependence of hydrogen absorbing properties in melt quenched and annealed TiMn2 based alloys. Journal of Alloys and Compounds, 2004, 379, 290-297.	5.5	14
166	Microstructures and Mechanical Properties of Directionally Solidified Nb-<I>x</I>Mo-22Ti-18Si <I>In-Situ</I> Composites. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2000, 64, 474-480.	0.4	14
167	Mid-term results of a new femoral prosthesis using Ti-Nb-Sn alloy with low Youngâ€™s modulus. BMC Musculoskeletal Disorders, 2021, 22, 987.	1.9	14
168	Plastic Deformation Mechanisms in α Titanium. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1990, 76, 495-502.	0.4	13
169	Dissociated dislocations in deformed Nb₃Al produced from alloy powder. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1993, 67, 251-260.	0.6	13
170	The effect of pre-deformation on environmental embrittlement of Ni3(Si,Ti) alloys. Scripta Materialia, 1996, 34, 1633-1639.	5.2	13
171	Fracture toughness improvement of TiC by Nb and Mo precipitates. Journal of Materials Science Letters, 2000, 19, 1879-1881.	0.5	13
172	Effect of W Alloying and NbC Dispersion on High Temperature Strength at 1773 K and Room Temperature Fracture Toughness in Nb₅Si₃/Nb <I>In-situ</I> Composites. Materials Transactions, 2002, 43, 1415-1418.	1.2	13
173	Plastic Deformation of Sendust Polycrystals. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1981, 45, 1285-1292.	0.4	12
174	Superplastic deformation of Co3Ti alloy. Scripta Materialia, 1997, 37, 1053-1058.	5.2	12
175	Hydrogen absorption of Nbâ€“Al alloy bulk specimens. Journal of Alloys and Compounds, 1998, 281, 268-274.	5.5	12
176	Microstructures and Mechanical Properties of Nb/Nb-Silicide <I>in-situ</I> Composites Synthesized by Reactive Hot Pressing of Ball Milled Powders. Materials Transactions, JIM, 2000, 41, 444-451.	0.9	12
177	High-temperature Strength and Room-temperature Fracture Toughness of Mo-ZrC <I>in-situ</I> Composites with Hyper-eutectic Structure. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2000, 64, 1082-1088.	0.4	12
178	Multiple cracking of tantalum by hydrogenation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 685-690.	2.2	12
179	Surface mesostructure change of B2-type FeAl single crystals by condensation of supersaturated thermal vacancies. Philosophical Magazine, 2005, 85, 331-344.	1.6	12
180	Study of bioactivity on a TiNbSn alloy surface. Thin Solid Films, 2017, 639, 22-28.	1.8	12

#	Article	IF	Citations
181	Effects of elastic intramedullary nails composed of low Young's modulus Tiâ€Nbâ€Sn alloy on healing of tibial osteotomies in rabbits. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 700-707.	3.4	12
182	Nb₃Al Wires Fabricated by the Clad-Chip Extrusion (CCE) Method and Their Superconductive Properties. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1989, 53, 458-463.	0.4	12
183	Effects of temperature and grain size on deformation and fracture in recrystallized Ni3Al doped with boron. Journal of Materials Science, 1990, 25, 1590-1597.	3.7	11
184	Tensile properties and plastic deformation modes of? Zr-Nb alloys. Journal of Materials Science, 1990, 25, 384-390.	3.7	11
185	Dynamic recrystallization of Nb3Al produced from alloy powder. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1992, 159, 173-180.	5.6	11
186	Effect of Strain Rate on the High-Temperature Deformation Behavior of Nb₃Al Hipped from Prealloyed Powder. Materials Transactions, JIM, 1996, 37, 1388-1396.	0.9	11
187	The effect of pre-deformation on moisture-induced embrittlement of Ni3Al alloys. Intermetallics, 1997, 5, 127-135.	3.9	11
188	Solid-Solution Strengthening and High-Temperature Compressive Ductility of Nb-Mo-W Ternary Alloys. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2000, 64, 566-570.	0.4	11
189	Effect of structural changes on degradation of hydrogen absorbing capacity in cyclically hydrogenated TiMn2 based alloys. Journal of Alloys and Compounds, 2004, 376, 232-240.	5.5	11
190	Fabrication and Mechanical Properties of Porous Co–Cr–Mo Alloy Compacts without Ni Addition. Materials Transactions, 2006, 47, 283-286.	1.2	11
191	Preparation and Evaluation of Plasma Sprayed Ceramic Coatings for Oxidation Resistance. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1999, 63, 112-117.	0.4	11
192	The strength properties of iron aluminides. Jom, 1997, 49, 46-49.	1.9	10
193	Superplastic deformation of boron doped Feâ€“18at.%Si. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1998, 248, 78-86.	5.6	10
194	Microstructures and Mechanical Properties of Nb-Mo-Ti-Si-C <I>in-situ</I> Composites Prepared by Arc Melting and Directional Solidification. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2000, 64, 331-334.	0.4	10
195	The effect of Nb addition on environmental embrittlement of a Ni3(Si,Ti) alloy. Intermetallics, 2000, 8, 47-52.	3.9	10
196	Oxidation Behavior of Mo-Si-B In Situ Composites. Solid State Phenomena, 2007, 127, 215-220.	0.3	10
197	Effect of Pressure Application by HIP on Microstructure Evolution during Diffusion Bonding. Materials Transactions, 2005, 46, 1651-1655.	1.2	9
198	Effects of Second Phases on the Pulverization of Nb₃Al-Base Alloys by Hydrogenation. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1997, 61, 1132-1138.	0.4	9

#	Article	IF	Citations
199	Î²-type TiNbSn Alloy Plates With Low Young Modulus Accelerates Osteosynthesis in Rabbit Tibiae. Clinical Orthopaedics and Related Research, 2022, 480, 1817-1832.	1.5	9
200	Yield Stress Anomaly in B2 FeAl. Materials Research Society Symposia Proceedings, 1996, 460, 313.	0.1	8
201	Development of Mo(Si,Al)2-base oxidation-resistant coating on Nb-base structural materials. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 617-626.	2.2	8
202	High-Temperature Strength of Directionally Solidified Al₂O₃/YAG/ZrO₂ Eutectic Composite. Materials Science Forum, 2005, 475-479, 1295-1300.	0.3	8
203	Fabrication of a High Performance Ti Alloy Implant for an Artificial Hip Joint. Materials Science Forum, 2009, 620-622, 591-594.	0.3	8
204	Effect of B addition on the microstructures and mechanical properties of Nbâ€“16Siâ€“10Moâ€“15W alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 384, 377-384.	5.6	8
205	Effect of (Si+Al) Content in Nb Solid Solution on Mechanical Properties of Multiphase Nb-Si-Al Alloys. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1999, 63, 1519-1526.	0.4	8
206	Antibacterial Activity of an Anodized TiNbSn Alloy Prepared in Sodium Tartrate Electrolyte. Frontiers in Bioengineering and Biotechnology, 2022, 10, 883335.	4.1	8
207	Oxidation behavior of Mo(Si0.6,Al0.4)2/HfB2 composites as aluminum reservoir materials for protective Al2O3 formation. Scripta Materialia, 2003, 49, 767-772.	5.2	7
208	Microstructure and High-Temperature Strength of Directionally Solidified Al₂O₃/YAG/ZrO₂ Eutectic Composite. Materials Transactions, 2004, 45, 303-306.	1.2	7
209	Mechanical Properties of Porous Titanium Compacts Reinforced by UHMWPE. Materials Science Forum, 2007, 539-543, 1033-1037.	0.3	7
210	Preparation of Nb-Cr Alloy Powder by Hydrogenation. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1998, 62, 681-689.	0.4	7
211	High-Temperature Compression Strength of Directionally Solidified Nb-Mo-W-Ti-Si In-Situ Composites. Materials Research Society Symposia Proceedings, 2000, 646, 407.	0.1	6
212	Microstructure and High-Temperature Strength of Directionally Solidified Al₂O₃/YAG Eutectic Composite. Materials Transactions, 2003, 44, 1690-1693.	1.2	6
213	Substructure Development in Rapidly Solidified B2-Type TiCo Ribbons. Materials Science Forum, 2005, 475-479, 849-852.	0.3	6
214	Influence of vacuum annealing conditions on the surface oxidation and vacancy condensation in the surface of an FeAl single crystal. Intermetallics, 2010, 18, 412-416.	3.9	6
215	Microstructure Evolution Mechanism in Iron Aluminides/CrMo Steel Composite Prepared by Solid State Bonding. ISIJ International, 2004, 44, 878-885.	1.4	6
216	Influence of Boron Addition on High Temperature Mechanical Properties of Nb₃Ir Intermetallic Compounds. Materials Transactions, JIM, 2000, 41, 1605-1611.	0.9	5

#	Article	IF	Citations
217	Mechanical Properties-Graded Ti Alloy Implants for Orthopedic Applications. Materials Science Forum, 2009, 631-632, 205-210.	0.3	5
218	Hydrogen pulverization of refractory metals, alloys and intermetallics. Metals and Materials International, 2004, 10, 45-53.	3.4	4
219	Fabrication of Single Phase Nb₃Al Bulk Material by Clad-Chip Extrusion Method. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1994, 58, 1080-1085.	0.4	4
220	Fabrications and Corrosion Resistance of Iron-Aluminum Alloy/High Carbon Steel Composites Prepared by Clad Rolling. Materials Science Forum, 2005, 502, 379-384.	0.3	3
221	Mo-Si-BåŸºè¶…é«˜æ¸©è€ç†±è‡åˆæœæ–™ã®æœæ–™è¨è¨ˆã•é«˜æ¸©ç‰¹æ€§. Materia Japan, 2002, 41, 146-149.	0.1	2
222	Effect of Excess Vacancies on Hydrogen Absorption-Desorption Characteristics in Rapidly Solidified B2 TiCo. Materials Science Forum, 2003, 426-432, 3727-3732.	0.3	2
223	Surface Oxidation of Fe-48 mol%Al Single Crystal under a High Vacuum. Materials Transactions, 2004, 45, 365-368.	1.2	2
224	Effect of Nitrogen on Mechanical Properties of Porous Titanium Compacts Prepared by Powder Sintering. Materials Science Forum, 2005, 475-479, 2313-2316.	0.3	2
225	Osteoconductivity of Porous Titanium Having Youngâ€™s Modulus Similar to Bone and Surface Modification by OCP. Key Engineering Materials, 2007, 330-332, 951-954.	0.4	2
226	Fabrication and Corrosion Properties of Iron Aluminum Alloy/Steel Laminated Composite Prepared by Clad Rolling. Materials Science Forum, 0, 539-543, 866-871.	0.3	2
227	åŒ»ç™‚ç”¨ãƒã‚¤ã‚ªåˆé‡‘ã®æœæ–™ç‰¹æ€§. Materia Japan, 2008, 47, 242-248.	0.1	2
228	Correlation of tensile properties, deformation modes, and. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1987, 18, 265-271.	1.4	1
229	Corrosion Behavior of Pre-Treated Fe-Al Alloys in Aqueous Acid Solutions. Solid State Phenomena, 2007, 127, 233-238.	0.3	1
230	Microstructural Observation of Ordered Î²-Ta2H in Hydrogenated Tantalum. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 956-963.	2.2	1
231	Crystallographic Orientation and Mechanical Properties of ^|^alpha;^|^prime; Martensite Ti-V AlloySystems Produced by Cross Rolling. Journal of the Japan Society for Technology of Plasticity, 2009, 50, 249-255.	0.3	1
232	Hydrogen Pulverization in Intermetallic-based Alloys. Materials Research Society Symposia Proceedings, 2000, 646, 312.	0.1	0
233	Nanoporous Behavior Induced by Excess Vacancy Clustering in Rapidly-Solidified B2 FeAl Ribbons. Materials Research Society Symposia Proceedings, 2002, 753, 1.	0.1	0
234	Nanostructure of Surface Formed by Vacancy Clustering in FeAl. Materials Research Society Symposia Proceedings, 2003, 775, 9491.	0.1	0

#	Article	IF	Citations
235	Thermal Analysis of Relaxation Processes of Supersaturated Vacancies in B2-Type Aluminides. Materials Research Society Symposia Proceedings, 2004, 842, 245.	0.1	0
236	Effect of Heat Treatments on Microstructure of Rapidly Solidified TiCo Ribbons. Materials Research Society Symposia Proceedings, 2004, 842, 67.	0.1	0
237	Tensile and Fracture Behavior of Nb_{SS}/Nb₅Si₃ In Situ Composites Prepared by Arc Melting. Key Engineering Materials, 2005, 297-300, 507-514.	0.4	0
238	Fracture Behaviors of Niobium Alloys by Hydrogenation and its Application for Fine Powder Fabrication. Materials Science Forum, 2007, 539-543, 2719-2724.	0.3	0
239	Development of Orthodontic Devices Made by Ni-free Ti Alloys. Materia Japan, 2010, 49, 119-121.	0.1	0
240	Microstructure and Properties of Crossâ€“Roll Rolled and Heat Treated Metastable TiNbSn Alloy. Journal of Nanoscience and Nanotechnology, 2014, 14, 7981-7984.	0.9	0
241	Production of Tantalum Powder by Hydrogenation Process. Hosokawa Powder Technology Foundation ANNUAL REPORT, 2004, 12, 124-130.	0.0	0
242	Research and Development of Î²Ti Alloy Stems for Artificial Hip Joint. Materia Japan, 2021, 60, 697-705.	0.1	0