Satoshi Semboshi

List of Publications by Year
in descending order

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115	1,692	304368	377514
papers	citations	22 h-index	34 g-index

117	117	117	1183
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Morphology of Columnar Defects Dependent on Irradiation Direction in High-T _c Superconductors. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-4.	1.1	2
2	Effect of magnesium doping on discontinuous precipitation in age-hardenable copperâ€“titanium alloys. Materials Characterization, 2022, 189, 111911.	1.9	5
3	Phase diagram of the Cuâ€“Ni3Al pseudo-binary system. Journal of Alloys and Compounds, 2022, 921, 166124.	2.8	2
4	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.	2.6	22
5	Photoactivity of an anodized biocompatible TiNbSn alloy prepared in sodium tartrate/hydrogen peroxide aqueous solution. Applied Surface Science, 2021, 543, 148829.	3.1	10
6	Microstructure, Morphology and Magnetic Property of (001)-Textured MnAlGe Films on Si/SiO₂ Substrate. Materials Transactions, 2021, 62, 680-687.	0.4	3
7	Fabrication of the Casting Products in Cuâ€“Znâ€“Mnâ€“Ni Medium-Entropy Brasses. Materials Transactions, 2021, 62, 856-863.	0.4	3
8	Age-Induced Precipitating and Strengthening Behaviors in a Cuâ€“Niâ€“Al Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 4934-4945.	1.1	6
9	Unidirectional Crystal Orientation of Dual-Phase Ni3Al-Based Alloy via Laser Irradiation. Metals, 2020, 10, 1011.	1.0	0
10	Suppression of Discontinuous Precipitation in Cu-Ti Alloys by Aging in a Hydrogen Atmosphere. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 3704-3712.	1.1	10
11	Synthesis of Au nanorods via autocatalytic growth of Au seeds formed by sonochemical reduction of Au(I): Relation between formation rate and characteristic of Au nanorods. Ultrasonics Sonochemistry, 2020, 69, 105229.	3.8	11
12	Effects of Iron Addition on the Microstructures and Mechanical Properties of Two-Phase Ni3Al-Ni3V Intermetallic Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 2469-2479.	1.1	3
13	Control of optical absorption of silica glass by Ag ion implantation and subsequent heavy ion irradiation. Nanotechnology, 2020, 31, 455706.	1.3	9
14	Strong flux pinning by columnar defects with directionally dependent morphologies in GdBCO-coated conductors irradiated with 80 MeV Xe ions. Japanese Journal of Applied Physics, 2020, 59, 023001.	0.8	5
15	Isothermal Aging Behaviors of Copperâ€“Titaniumâ€“Magnesium Supersaturated Solid-Solution Alloys. Materials Transactions, 2020, 61, 1912-1921.	0.4	5
16	Microstructures and tensile properties of off-stoichiometric Ni3Alâ€“Ni3V pseudo-binary alloys. Journal of Materials Research, 2019, 34, 3061-3070.	1.2	3
17	Accelerating heterogeneous nucleation to increase hardness and electrical conductivity by deformation prior to ageing for Cu-4 at.% Ti alloy. Philosophical Magazine Letters, 2019, 99, 275-283.	0.5	5
18	Age-Induced Precipitation and Hardening Behavior of Ni3Al Intermetallic Alloys Containing Vanadium. Metals, 2019, 9, 160.	1.0	4

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19	Alloy design and fabrication of ingots in Cu-Zn-Mn-Ni-Sn high-entropy and Cu-Zn-Mn-Ni medium-entropy brasses. Materials and Design, 2019, 181, 107900.	3.3	34
20	Effect of transition metal addition on microstructure and hardening behavior of two-phase Ni3Al-Ni3V intermetallic alloys. Materialia, 2019, 5, 100173.	1.3	6
21	Effect of Composition on the Strength and Electrical Conductivity of Cu-Ti Binary Alloy Wires Fabricated by Aging and Intense Drawing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 1389-1396.	1.1	24
22	Effect of Prior Cold Working before Aging on the Precipitation Behavior in a Cu-3.5 wt% Ti Alloy. Journal of Korean Institute of Metals and Materials, 2019, 57, 10-17.	0.4	9
23	Effect of elastic collisions and electronic excitation on lattice structure of NiTi bulk intermetallic compound irradiated with energetic ions. Nuclear Instruments & Methods in Physics Research B, 2018, 427, 14-19.	0.6	3
24	Thermal conductivity of Ni3(Si,Ti) single-phase alloys. Intermetallics, 2018, 92, 119-125.	1.8	6
25	Microstructure and Properties of Laser Clad Ni-Base Intermetallic Alloys Reinforced with Carbide Particles. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2018, 82, 451-460.	0.2	1
26	High Strength and High Electrical Conductivity Cu-Ti Alloy Wires Fabricated by Aging and Severe Drawing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 4956-4965.	1.1	22
27	Microstructural Subsequence and Phase Equilibria in an Age-Hardenable Cu-Ni-Si Alloy. Materials Transactions, 2018, 59, 182-187.	0.4	7
28	Effects of Tungsten Addition and Isothermal Annealing on Microstructural Evolution and Hardening Behavior of Two-Phase Ni₃Al-Ni₃V Intermetallic Alloys. Materials Transactions, 2018, 59, 204-213.	0.4	4
29	Kinetics and Equilibrium of Age-Induced Precipitation in Cu-4 At. Pct Ti Binary Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 1501-1511.	1.1	26
30	Microstructures and hardness properties of laser clad Ni base two-phase intermetallic alloy coating. Journal of Materials Research, 2017, 32, 4531-4540.	1.2	5
31	Processing parameter, microstructure and hardness of Ni base intermetallic alloy coating fabricated by laser cladding. MRS Advances, 2017, 2, 1381-1386.	0.5	2
32	Thermal stability of energetic ion irradiation induced amorphization for Ni₃Nb and Ni₃Ta intermetallic compounds. Transactions of the Materials Research Society of Japan, 2017, 42, 41-45.	0.2	4
33	Radiation enhanced precipitation of solute atoms in AlCu binary alloys. Transactions of the Materials Research Society of Japan, 2017, 42, 9-14.	0.2	2
34	Grain Boundary Character Dependence on Nucleation of Discontinuous Precipitates in Cu-Ti Alloys. Materials, 2017, 10, 415.	1.3	27
35	Ion Species/Energy Dependence of Irradiation-Induced Lattice Structure Transformation and Surface Hardness of Ni₃Nb and Ni₃Ta Intermetallic Compounds. Materials Transactions, 2017, 58, 739-748.	0.4	8
36	Structure of thermal-aging induced Fe clusters and their effects on physical properties for Cu-1.2Âat.% Fe alloy. Journal of Alloys and Compounds, 2016, 682, 805-814.	2.8	11

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37	Lattice structure transformation and change in surface hardness of Ni 3 Nb and Ni 3 Ta intermetallic compounds induced by energetic ion beam irradiation. Nuclear Instruments & Methods in Physics Research B, 2016, 372, 72-77.	0.6	13
38	Fine Precipitation in the Channel Region of Two-Phase Ni3Al and Ni3V Intermetallic Alloys Containing Mo and W. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 998-1008.	1.1	10
39	Discontinuous precipitates in age-hardening CuNiSi alloys. Materials Characterization, 2016, 115, 39-45.	1.9	54
40	Precipitation Behavior and Properties of Cu-Ti Alloys with Added Nitrogen. Materials Transactions, 2015, 56, 297-302.	0.4	10
41	Effect of Boron Doping on Cellular Discontinuous Precipitation for Age-Hardenable Cuâ€“Ti Alloys. Materials, 2015, 8, 3467-3478.	1.3	25
42	Electroforming of oxide-nanoparticle-reinforced copper-matrix composite. Journal of Materials Research, 2015, 30, 521-527.	1.2	9
43	Effect of Dislocations on Spinodal Decomposition, Precipitation, and Age-hardening of Cuâ€“Ti Alloy. High Temperature Materials and Processes, 2015, 34, .	0.6	2
44	Microstructural stability and age-hardening behavior of Re-added dual two-phase Ni3Al and Ni3V intermetallic alloys. Philosophical Magazine, 2015, 95, 3859-3875.	0.7	7
45	Surface hardening of age-hardenable Cuâ€“Ti alloy by plasma carburization. Surface and Coatings Technology, 2015, 283, 262-267.	2.2	14
46	Thermal conductivity of Ni3Vâ€“Ni3Al pseudo-binary alloys. Intermetallics, 2015, 59, 1-7.	1.8	7
47	Modification of surface hardness for dual two-phase Ni3Alâ€“Ni3V intermetallic compound by using energetic ion beam and subsequent thermal treatment. Nuclear Instruments & Methods in Physics Research B, 2015, 345, 22-26.	0.6	6
48	Three-Dimensional Imaging of Dislocations in a Tiâ€“35mass%Nb Alloy by Electron Tomography. Materials, 2015, 8, 1924-1933.	1.3	3
49	Energetic ion beam induced crystal phase transformation and resulting hardness change in Ni3Al intermetallic compound. Nuclear Instruments & Methods in Physics Research B, 2015, 354, 287-291.	0.6	11
50	Hardness modification of Alâ€“Mgâ€“Si alloy by using energetic ion beam irradiation. Nuclear Instruments & Methods in Physics Research B, 2015, 351, 1-5.	0.6	5
51	Anomalous hardening and microstructural evolution accompanied by reordering and restoring of plastically deformed Co3Ti. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 620, 411-419.	2.6	0
52	Modification of microstructure and hardness for Cuâ€“Ti alloy by means of energetic ion beam irradiation. Nuclear Instruments & Methods in Physics Research B, 2014, 341, 53-57.	0.6	4
53	Hardening induced by energetic electron beam for Cuâ€“Ti alloys. Japanese Journal of Applied Physics, 2014, 53, 05FC04.	0.8	9
54	Effect of high temperature annealing on non-thermal equilibrium phases induced by energetic ion irradiation in FeRh and Ni3V intermetallic compounds. Japanese Journal of Applied Physics, 2014, 53, 05FC08.	0.8	10

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55	Surface hardening of age-hardenable Cuâ€“Ti dilute alloys by plasma nitriding. Surface and Coatings Technology, 2014, 258, 691-698.	2.2	15
56	Microstructure evolution and hardness change in ordered Ni 3 V intermetallic alloy by energetic ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2014, 338, 72-76.	0.6	9
57	Investigation of Precipitation Behavior in Age-Hardenable Cu-Ti Alloys by an Extraction-Based Approach. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 3401-3411.	1.1	29
58	Anomalous hardening behavior accompanied by reordering of plastically deformed Ni3(Si,Ti) intermetallic alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 610, 228-236.	2.6	2
59	Age-hardening behavior of a single-crystal Cuâ€“ti alloy. Materials Letters, 2014, 131, 90-93.	1.3	20
60	Effects of energetic heavy ion irradiation on hardness of Alâ€“Mgâ€“Si alloys. Nuclear Instruments & Methods in Physics Research B, 2013, 314, 107-111.	0.6	10
61	Solid-state bonding of alloy-designed Cuâ€“Zn brass and steel associated with phase transformation by spark plasma sintering. Journal of Materials Science, 2013, 48, 5801-5809.	1.7	7
62	Mechanical properties and microstructures of Î² Tiâ€“25Nbâ€“11Sn ternary alloy for biomedical applications. Materials Science and Engineering C, 2013, 33, 1629-1635.	3.8	58
63	Extraction of precipitates from age-hardenable Cuâ€“Ti alloys. Materials Characterization, 2013, 82, 23-31.	1.9	42
64	Fabrication of high-strength and high-conductivity Cuâ€“Ti alloy wire by aging in a hydrogen atmosphere. Journal of Alloys and Compounds, 2013, 580, S397-S400.	2.8	47
65	Formation of Titanium Hydride in Dilute Cu–Ti Alloy by Aging in Hydrogen Atmosphere and Its Effects on Electrical and Mechanical Properties. Materials Transactions, 2013, 54, 520-527.	0.4	8
66	Formation of Titanium Hydride in Dilute Cu-Ti Alloy by Aging in Hydrogen Atmosphere and Its Effects on Electrical and Mechanical Properties. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2012, 76, 496-503.	0.2	1
67	A new concept of hip joint stem and its fabrication using metastable TiNbSn alloy. Journal of Alloys and Compounds, 2012, 536, S582-S585.	2.8	21
68	Experimental studies of complex hydride YMn2H6 on formation kinetics and x-ray absorption fine structure analyses. Applied Physics Letters, 2012, 100, .	1.5	6
69	Hardness modification of aluminum-alloys by means of energetic ion irradiation and subsequent thermal aging. Nuclear Instruments & Methods in Physics Research B, 2012, 272, 49-52.	0.6	12
70	Thin hydroxyapatite coating on titanium fabricated by chemical coating process using calcium phosphate slurry. Surface and Coatings Technology, 2012, 206, 2616-2621.	2.2	29
71	Photo-induced properties of anodic oxide films on Ti6Al4V. Thin Solid Films, 2012, 520, 4956-4964.	0.8	30
72	Aging of Cu-3 at% Ti Alloys in Hydrogen Atmosphere: Influence of Hydrogen Pressure on Strength and Electrical Conductivity. Materials Transactions, 2011, 52, 605-609.	0.4	8

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73	Aging of Copper-Titanium Dilute Alloys in Hydrogen Atmosphere: Influence of Prior-Deformation on Strength and Electrical Conductivity. Materials Transactions, 2011, 52, 2137-2142.	0.4	19
74	Cyclic Hydrogenation and Dehydrogenation Property of LiNH₂ Impregnated into Ni Foam. Materials Transactions, 2011, 52, 623-626.	0.4	6
75	Structural and Hydrogen Desorption Properties of Aluminum Hydride. Materials Transactions, 2011, 52, 598-601.	0.4	12
76	Effects of Aging Temperature on Electrical Conductivity and Hardness of Cu-3 at. pct Ti Alloy Aged in a Hydrogen Atmosphere. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2136-2143.	1.1	31
77	Visible light response of nitrogen and sulfur co-doped TiO2 photocatalysts fabricated by anodic oxidation. Catalysis Today, 2011, 164, 399-403.	2.2	26
78	Hardening of Alâ€“Cuâ€“Mg alloy by energetic ion irradiation. Journal of Nuclear Materials, 2011, 408, 201-204.	1.3	17
79	Fabrication of composite coating comprising bioactive calcium and sodium titanates on titanium using calcium hydroxide slurry containing sodium ions. Surface and Coatings Technology, 2011, 205, 3785-3790.	2.2	11
80	First-principles studies of complex hydride YMn2H6 and its synthesis from metal hydride YMn2H4.5. Applied Physics Letters, 2011, 98, 221908.	1.5	22
81	Photo-induced characteristics of a Tiâ€“Nbâ€“Sn biometallic alloy with low Young's modulus. Thin Solid Films, 2010, 519, 276-283.	0.8	19
82	Dielectric properties of anodic oxide film on Nb solid solution/Nb2N two phase alloys. Thin Solid Films, 2010, 519, 719-724.	0.8	1
83	Microstructural evolution of Cu-1at% Ti alloy aged in a hydrogen atmosphere and its relation with the electrical conductivity. Ultramicroscopy, 2009, 109, 593-598.	0.8	36
84	Microstructure and mechanical properties of Cuâ€“3at.% Ti alloy aged in a hydrogen atmosphere. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 517, 105-113.	2.6	54
85	Visible light responses of sulfur-doped rutile titanium dioxide photocatalysts fabricated by anodic oxidation. Applied Catalysis B: Environmental, 2009, 91, 152-156.	10.8	76
86	Enhanced photocatalytic activity of rutile TiO2 prepared by anodic oxidation in a high concentration sulfuric acid electrolyte. Applied Catalysis B: Environmental, 2009, 90, 255-261.	10.8	78
87	Microstructure and superhydrophilicity of anodic TiO2 films on pure titanium. Thin Solid Films, 2008, 516, 7488-7496.	0.8	38
88	Aging behavior of Cuâ€“Tiâ€“Al alloy observed by transmission electron microscopy. Journal of Materials Science, 2008, 43, 3761-3768.	1.7	30
89	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.	1.1	20
90	Calcium-hydroxide slurry processing for bioactive calcium-titanate coating on titanium. Surface and Coatings Technology, 2008, 202, 5110-5115.	2.2	23

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91	Structural and dielectric properties of anodic oxide film on Nbâ€“Ti alloy. Thin Solid Films, 2008, 516, 8613-8619.	0.8	11
92	Effect of aging in hydrogen atmosphere on electrical conductivity of Cuâ€“3at.%Ti alloy. Journal of Materials Research, 2008, 23, 473-477.	1.2	48
93	Superhydrophilicity of Rutile TiO2 Prepared by Anodic Oxidation in High Concentration Sulfuric Acid Electrolyte. Chemistry Letters, 2008, 37, 1126-1127.	0.7	13
94	Transmission Electron Microscopy Observations on Cu-Mg Alloy Systems. Solid State Phenomena, 2007, 127, 103-108.	0.3	6
95	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
96	Microstructural Observation of Ordered Î²-Ta2H in Hydrogenated Tantalum. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 956-963.	1.1	1
97	Effect of pressure application on microstructure evolution in a composite of Feâ€“Al alloy and CrMo steel. Journal of Alloys and Compounds, 2006, 413, 281-288.	2.8	5
98	Fracture behavior of niobium by hydrogenation and its application for fine powder fabrication. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2006, 37, 1301-1309.	1.1	8
99	Transmission Electron Microscopy Observations on Cu-Ti Alloy Systems. Materials Science Forum, 2005, 502, 163-168.	0.3	5
100	Laminates based on an iron aluminide intermetallic alloy and a CrMo steel. Intermetallics, 2005, 13, 717-726.	1.8	21
101	Hydrogen pulverization of refractory metals, alloys and intermetallics. Metals and Materials International, 2004, 10, 45-53.	1.8	4
102	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.	2.8	11
103	Composition dependence of hydrogen absorbing properties in melt quenched and annealed TiMn2 based alloys. Journal of Alloys and Compounds, 2004, 379, 290-297.	2.8	14
104	Production of Tantalum Powder by Hydrogenation Process. Hosokawa Powder Technology Foundation ANNUAL REPORT, 2004, 12, 124-130.	0.0	0
105	Multiple cracking of tantalum by hydrogenation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 685-690.	1.1	12
106	Effect of composition on hydrogen absorbing properties in binary TiMn2 based alloys. Journal of Alloys and Compounds, 2003, 352, 210-217.	2.8	34
107	Hydrogenation-induced fragmentation in Taâ€“Ni alloy. Journal of Alloys and Compounds, 2003, 359, 236-243.	2.8	15
108	Degradation of hydrogen absorbing capacity in cyclically hydrogenated TiMn2. Acta Materialia, 2001, 49, 927-935.	3.8	55

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109	Hydrogen Pulverization in Intermetallic-based Alloys. Materials Research Society Symposia Proceedings, 2000, 646, 312.	0.1	0
110	Superplastic Deformation Mechanisms of Monolithic Intermetallics. Materials Science Forum, 1999, 304-306, 147-154.	0.3	0
111	Effect of microstructure on hydrogen pulverization of two phase alloys. Intermetallics, 1998, 6, 61-69.	1.8	21
112	Hydrogen absorption of Nbâ€“Al alloy bulk specimens. Journal of Alloys and Compounds, 1998, 281, 268-274.	2.8	12
113	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.	0.2	9
114	Effect of Prior Cold-Working on Strength and Electrical Conductivity of Cu-Ti Dilute Alloy Aged in a Hydrogen Atmosphere. Materials Science Forum, 0, 654-656, 1315-1318.	0.3	5
115	Synthesis and Structural Investigation of Metal Hydride, Y(Mn_{1-<i>x</i>}Fe_{<i>x</i>})₂H<sub>< (<i>x</i> â‰¤ 0.3, 4.0 â‰¤ <i>y</i> â‰¤ 4.5) and Complex Hydride, Y(Mn_{1-<i>x</i>}Fe_{<i>x</i>})₂H<sub>6 Key Engineering Materials, 0, 508, 310-314.	0.4	1