Tokuteru Uesugi

List of Publications by Year
in descending order

123 papers	1,475 citations	304743 22 h-index	395702 33 g-index
139 all docs	139 docs citations	139 times ranked	1085 citing authors

#	Article	IF	Citations
1	First-principles studies on lattice constants and local lattice distortions in solid solution aluminum alloys. Computational Materials Science, 2013, 67, 1-10.	3.0	121
2	Effect of Mg content on the minimum grain size of Alâ€“Mg alloys obtained by friction stir processing. Scripta Materialia, 2011, 64, 355-358.	5.2	88
3	Effect of interstitial carbon on the mechanical properties of electrodeposited bulk nanocrystalline Ni. Acta Materialia, 2013, 61, 3360-3369.	7.9	74
4	Ab initiostudy on divacancy binding energies in aluminum and magnesium. Physical Review B, 2003, 68, .	3.2	62
5	First-principles calculation of grain boundary energy and grain boundary excess free volume in aluminum: role of grain boundary elastic energy. Journal of Materials Science, 2011, 46, 4199-4205.	3.7	47
6	Effect of orientation on tensile ductility of electrodeposited bulk nanocrystalline Niâ€“W alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 578, 318-322.	5.6	45
7	Fabrication of bulk nanocrystalline Feâ€“Ni alloys with high strength and high ductility by an electrodeposition. Materials Letters, 2014, 116, 71-74.	2.6	44
8	Effects of Zn addition and aging treatment on tensile properties of Snâ€“Agâ€“Cu alloys. Journal of Alloys and Compounds, 2012, 527, 226-232.	5.5	40
9	Enhancement in mechanical properties of bulk nanocrystalline Feâ€“Ni alloys electrodeposited using propionic acid. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 607, 505-510.	5.6	39
10	Enthalpies of Solution in Ti–X (X = Mo, Nb, V and W) Alloys from First-Principles Calculations. Materials Transactions, 2013, 54, 484-492.	1.2	36
11	Accommodation mechanisms for grain boundary sliding as inferred from texture evolution during superplastic deformation. Philosophical Magazine, 2013, 93, 2913-2931.	1.6	34
12	Generalized Stacking Fault Energy and Dislocation Properties for Various Slip Systems in Magnesium: a First-Principles Study. Materials Science Forum, 2003, 419-422, 225-230.	0.3	33
13	Elastic Constants of AlLi from First Principles. Materials Transactions, 2005, 46, 1117-1121.	1.2	32
14	Strategy for Electrodeposition of Highly Ductile Bulk Nanocrystalline Metals with a Face-Centered Cubic Structure. Materials Transactions, 2014, 55, 1859-1866.	1.2	32
15	Effect of Initial Grain Size on Dynamically Recrystallized Grain Size in AZ31 Magnesium Alloy. Materials Transactions, 2008, 49, 1979-1982.	1.2	31
16	Effect of additives on tensile properties of bulk nanocrystalline Niâ€“W alloys electrodeposited from a sulfamate bath. Materials Letters, 2013, 99, 65-67.	2.6	30
17	Enhanced tensile ductility in bulk nanocrystalline nickel electrodeposited by sulfamate bath. Materials Letters, 2011, 65, 2351-2353.	2.6	29
18	Grain boundary relaxation in fine-grained magnesium solid solutions. Philosophical Magazine, 2011, 91, 4158-4171.	1.6	26

#	Article	IF	Citations
19	Threshold stress for superplasticity in solid solution magnesium alloys. Philosophical Magazine, 2012, 92, 787-803.	1.6	26
20	Fabrication of bulk nanocrystalline Al electrodeposited from a dimethylsulfone bath. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 550, 363-366.	5.6	26
21	Optimum designs of additional elements from first-principles simulations. Keikinzoku/Journal of Japan Institute of Light Metals, 2004, 54, 82-89.	0.4	24
22	Significance of Si impurities on exceptional room-temperature superplasticity in a high-purity Zn-22%Al alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 645, 47-56.	5.6	23
23	Application of Electroforming Process to Bulk Amorphous Ni-W Alloy. Materials Transactions, 2011, 52, 37-40.	1.2	22
24	Isotropic superplastic flow in textured magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 558, 656-662.	5.6	21
25	Improvement in tensile ductility of electrodeposited bulk nanocrystalline Niâ€“W by sulfamate bath using propionic acid. Microelectronic Engineering, 2012, 91, 98-101.	2.4	20
26	Effect of Pre-Introduced Shear Bands Direction on Deformation Behavior in Zr₅₅Al₁₀Ni₅Cu₃₀ Bulk Metallic Glass. Materials Transactions, 2009, 50, 2355-2358.	1.2	19
27	<I>Ab Initio</I> Calculation on the Structure and Elastic Properties of a Magnesium-Lithium Alloy. Materials Transactions, 2001, 42, 1167-1171.	1.2	18
28	Effect of Small Addition of Zinc on Creep Behavior of Tin. Materials Transactions, 2010, 51, 1747-1752.	1.2	16
29	Segregation of Alkali and Alkaline Earth Metals at Σ11(113)[110] Grain Boundary in Aluminum from First-Principles Calculations. Materials Transactions, 2012, 53, 1699-1705.	1.2	16
30	Influence of Gloss Agent Types on Tensile Properties of Bulk Nanocrystalline Ni Electrodeposited from Sulfamate Bath. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2011, 62, 686.	0.2	15
31	Influence of Bath Composition on Tensile Ductility in Electrodeposited Bulk Nanocrystalline Nickel. Materials Transactions, 2011, 52, 142-146.	1.2	15
32	Effect of Addition of Small Amount of Zinc on Microstructural Evolution and Thermal Shock Behavior in Low-Ag Sn–Ag–Cu Solder Joints during Thermal Cycling. Materials Transactions, 2013, 54, 796-805.	1.2	15
33	Reduction in sulfur content of electrodeposited bulk nanocrystalline Feâ€“Ni alloys using manganese chloride. Materials Letters, 2016, 175, 86-88.	2.6	15
34	Pre-electrodeposition process for improving tensile ductility of Al electrodeposited from a dimethylsulfone bath. Materials Letters, 2013, 109, 229-232.	2.6	14
35	Contribution of interstitial solute strengthening in aluminum. Philosophical Magazine Letters, 2014, 94, 63-71.	1.2	14
36	First-Principles Calculation of Grain Boundary Excess Volume and Free Volume in Nanocrystalline and Ultrafine-Grained Aluminum. Materials Transactions, 2013, 54, 1597-1604.	1.2	13

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37	Tensile Properties of Bulk Nanocrystalline Ni and Ni-W Fabricated by Sulfamate Bath. Materials Science Forum, 2010, 654-656, 1114-1117.	0.3	12
38	First-principles study of transformation strains and phase stabilities in Î±â€³ and Î² Ti-Nb-X alloys. Journal of Alloys and Compounds, 2017, 716, 37-45.	5.5	12
39	Al-8Mg alloy with high strength and high ductility by addition of a grain boundary strengthening element. Materials Letters, 2019, 245, 218-221.	2.6	12
40	Grain Boundary Sliding of Æ©5(001) Twist Grain Boundary in Aluminium Bicrystal from First-Principles Calculations. Materials Science Forum, 2004, 447-448, 27-32.	0.3	11
41	First-Principles Studies on Grain Boundary Energies of [110] Tilt Grain Boundaries in Aluminum. Materials Science Forum, 2007, 561-565, 1837-1840.	0.3	11
42	Solute cluster-induced precipitation and resultant surface hardening during nitriding of Feâ€“Alâ€“V alloys. Scripta Materialia, 2021, 203, 114121.	5.2	11
43	Ab Initio Study on the Structure of Mg-Li Alloys. Materials Science Forum, 2000, 350-351, 49-54.	0.3	10
44	Deformation Mechanism of Nanocrystalline Al-Fe Alloys by Analysis from Ab-Initio Calculations. Materials Science Forum, 2006, 503-504, 209-214.	0.3	10
45	Investigation on Dynamic Friction Properties of Extruded AZ31 Magnesium Alloy Using by Ring Upsetting Method. Materials Transactions, 2010, 51, 1249-1254.	1.2	10
46	Optimization of the Mgâ€“Alâ€“Znâ€“Caâ€“Sr alloy composition based on the parameter Aâ€² in the constitutive equation for the climb-controlled dislocation creep including the stacking fault energy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 551, 19-24.	5.6	10
47	Prediction and fabrication of Tiâ€“Zrâ€“Co ternary metallic glasses based on effective atomic radius in Ti solid solution from first-principles calculations. Journal of Non-Crystalline Solids, 2014, 400, 67-71.	3.1	9
48	Mechanical Behavior of Electrodeposited Bulk Nanocrystalline Fe-Ni Alloys. Materials Research, 2015, 18, 95-100.	1.3	9
49	Effect of Alloying Element X on Transformation Strains and Phase Stabilities between α′′ and β Ti-Nb-X (X = Al, Sn, Zr, Ta) Ternary Alloys from First-Principles Calculations. Materials Transactions, 2016, 57, 263-268.	1.2	9
50	Mechanical properties and microstructures after abnormal grain growth in electrodeposited Niâ€“W alloys. Materialia, 2019, 8, 100481.	2.7	9
51	Suppression of the thermal embrittlement induced by sulfur segregation to grain boundary in Ni-based electrodeposits. Materialia, 2019, 6, 100312.	2.7	8
52	Reduction of impurity contents in aluminum plates electrodeposited from a dimethylsulfone-aluminum chloride bath. Journal of Alloys and Compounds, 2019, 783, 919-926.	5.5	8
53	Atomic Size Effects on Al, Ca and Sc in Mg Solid Solutions from First-Principles Calculations. Materials Science Forum, 2003, 426-432, 599-604.	0.3	7
54	Fabrication of the Bulk Amorphous Ni-W Alloy by an Electroforming Process. Materials Science Forum, 2007, 561-565, 1375-1378.	0.3	7

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55	Fabrication of Homogeneous Bulk Nanocrystalline Ni-W Alloys by an Electroforming Process. Advanced Materials Research, 2007, 26-28, 691-694.	0.3	7
56	Effects of Solute Fe, Zn and Mg on Recrystallization in Aluminum. Materials Transactions, 2016, 57, 329-334.	1.2	7
57	Calculation of alloying effect on formation enthalpy of TiCu intermetallics from first-principles calculations for designing Tiâ€“Cu-system metallic glasses. Philosophical Magazine Letters, 2016, 96, 27-34.	1.2	7
58	Fabrication of Electrodeposited Permalloys with High Strength and High Ductility. Materials Transactions, 2018, 59, 598-601.	1.2	7
59	Artificial neural network assisted by first-principles calculations for predicting transformation temperatures in shape memory alloys. International Journal of Modern Physics B, 2019, 33, 1950055.	2.0	7
60	Materials Design for High-Strength Mg-Based Alloys by Understanding from Ab Initio Calculation. Materials Science Forum, 2005, 488-489, 131-134.	0.3	5
61	Solute Segregation at Î£11(113)[110] Grain Boundary and Effect of the Segregation on Grain Boundary Cohesion in Aluminum from First Principles. Materials Science Forum, 2010, 654-656, 942-945.	0.3	5
62	Effect of a small amount of Fe-addition on intergranular fracture of Alâ€“7.3â€‰mass%Mg alloys. Keikinzoku/Journal of Japan Institute of Light Metals, 2019, 69, 457-464.	0.4	5
63	Atomistic Studies of Deformation Mechanism of Nanocrystalline Al-Ti and Al-Fe Alloys from First-Principles. Materials Science Forum, 2007, 561-565, 977-980.	0.3	4
64	Improvement of High Temperature Strength by Addition of Vanadium Content of Niâ€“Crâ€“Mo Steel for Brake Discs. ISIJ International, 2017, 57, 550-557.	1.4	4
65	Fabrication of Defect-Free Feâ€“Mn Alloys by Using Electrodeposition. Materials Transactions, 2018, 59, 935-938.	1.2	4
66	New dislocation dissociation accompanied by anti-phase shuffling in the Î±â€³ martensite phase of a Ti alloy. Acta Materialia, 2022, 227, 117705.	7.9	4
67	Dynamic Recrystallization during Hot Extrusion in AZ31 and AZ80 Alloys. Advanced Materials Research, 2007, 26-28, 449-452.	0.3	3
68	First-Principles Calculations of Grain Boundary-Surface for Various Grain Boundaries with Different Energies in Aluminum. Materials Science Forum, 2007, 551-552, 331-336.	0.3	3
69	Effect of Tool Materials on Dynamic Friction Characteristics and Microstructural Evolution at Elevated Temperature in Extruded AZ31 Magnesium Alloy. Materials Transactions, 2010, 51, 477-481.	1.2	3
70	Effect of Solute Elements on Grain Refinement during Friction Stir Processing in High-Purity Aluminum. Materials Science Forum, 0, 838-839, 116-121.	0.3	3
71	Revealing the intrinsic ductility of electrodeposited nanocrystalline metals. Materials Letters, 2019, 235, 224-227.	2.6	3
72	Nano Clustering of Interstitial and Substitutional Solute Atoms in Steels. Materia Japan, 2020, 59, 128-133.	0.1	3

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73	Prediction System for Solid Solubility Limits of Ag-, Cu-, Al-, and Mg-Based Alloys Using Artificial Neural Networks and First-Principles Calculations. Materials Transactions, 2020, 61, 2083-2090.	1.2	3
74	Dynamic Recrystallization during Hot Extrusion in Mg-3Al-0.1Y Alloy. Advanced Materials Research, 2007, 26-28, 433-436.	0.3	2
75	Softening by Coarsening of Ni-Al B₂ Phase Particles in Fe-Cr-Ni-Al-Zr Alloy. Materials Transactions, 2008, 49, 489-493.	1.2	2
76	First-principles calculation of grain boundary excess volume and free volume in nanocrystalline and ultrafine-grained aluminum. Keikinzoku/Journal of Japan Institute of Light Metals, 2012, 62, 464-471.	0.4	2
77	Microstructure and Mechanical Properties of the Heat-Resistant Mg-Zn-Y-Ag Cast Alloys with Long-Period Stacking Ordered Structures. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2013, 77, 159-164.	0.4	2
78	Dislocation Creep in Al-22.2, 53.6 and 101 at.ppm Fe Solid Solution Alloys. Advanced Materials Research, 0, 922, 749-754.	0.3	2
79	Development of Highly Efficient Saving Processes of Rare Earth in R-T-B Permanent Magnet. Physics Procedia, 2014, 54, 168-173.	1.2	2
80	The evaluation parameters for glass-forming ability in Tiâ€“Cu system metallic glasses. Materials Letters, 2015, 139, 73-76.	2.6	2
81	MIG welding of Mgâ€“6%Alâ€“1%Znâ€“2%Ca alloys. Keikinzoku/Journal of Japan Institute of Light Metals, 2016, 66, 252-257.	0.4	2
82	Texture Change during Superplastic Deformation in Fine-Grained Magnesium Alloys. Materials Science Forum, 2016, 838-839, 59-65.	0.3	2
83	Ductile electrodeposited Al from a dimethylsulfone bath with trace amounts of tin chloride. Materials Letters, 2019, 244, 192-194.	2.6	2
84	Mechanical Properties of Twin Roll Cast AZ91 Magnesium Alloy at Room Temperature. Advanced Materials Research, 0, , 145-148.	0.3	2
85	Fabrication of Homogeneous Bulk Nanocrystalline Ni-W Alloys by an Electroforming Process. Advanced Materials Research, 0, , 691-694.	0.3	2
86	Molecular Dynamics Simulation of Triazine Dithiol / MgO Interface. Materials Science Forum, 2003, 419-422, 943-948.	0.3	1
87	Effect of Manganese Addition on Strength and Fracture Toughness in Mg-6Al-1Zn Alloy. Key Engineering Materials, 2006, 306-308, 857-862.	0.4	1
88	Effect of Second Phase Particles on Phase Stability of Zirconia in Hot Water. Advanced Materials Research, 2007, 26-28, 781-784.	0.3	1
89	Mechanical Properties of Twin Roll Cast AZ91 Magnesium Alloy at Room Temperature. Advanced Materials Research, 2007, 26-28, 145-148.	0.3	1
90	Microstructure and Mechanical Properties in Friction Stir Processed Zr-Al-Ni-Cu Bulk Metallic Glass. Materials Science Forum, 2007, 561-565, 1345-1348.	0.3	1

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91	Dynamic Friction Properties and Microstructural Evolution in AZ31 Magnesium Alloy at Elevated Temperature during Ring Compression Test. Materials Transactions, 2011, 52, 1575-1580.	1.2	1
92	Influence of Filler Rod Composition on the Strength of Tungsten Inert Gas Welded Magnesium Alloy Joint. Advanced Materials Research, 0, 922, 663-666.	0.3	1
93	Effect of Small Addition of Si on Superplastic Elongation at Room Temperature in Zn-Al Eutectoid Superplastic Alloy. Advanced Materials Research, 0, 922, 328-331.	0.3	1
94	Relationship between Strength and Grain Size of Friction Stir Processed and Annealed High Purity Aluminum. Advanced Materials Research, 0, 922, 372-375.	0.3	1
95	Development of New High-Strength and Heat-Resistant Mg-Zn-Y-X (X=Zr and Ag) Casting Alloys. Materials Science Forum, 0, 783-786, 384-389.	0.3	1
96	Application of First-principles Calculations for Solid-solution Alloys. Materia Japan, 2014, 53, 410-413.	0.1	1
97	High-Hardening Processing by Equal-Cannel Angular Extrusion in Fe-13.5Cr-1.3Mo-0.4C Stainless Steel. Zairyo/Journal of the Society of Materials Science, Japan, 2008, 57, 105-111.	0.2	1
98	Increasing the W Content in Electrodeposited Bulk Nanocrystalline Ni-W Alloys with High Ductility. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2019, 70, 50-52.	0.2	1
99	Effect of Ca and Sr Content on Elevated Temperatures Mechanical Properties of a Cast AZ91 Magnesium Alloy. Advanced Materials Research, 2007, 26-28, 141-144.	0.3	0
100	Stacking Fault Energy of Cu-Ga Alloys from First Principles. Materials Science Forum, 2007, 561-565, 1915-1918.	0.3	0
101	Effect of Co-Doping Cation on Phase Stability of Zirconia Bioceramics in Hot Water. Advanced Materials Research, 2007, 26-28, 773-776.	0.3	0
102	Effect of Small Amount of Dopant on Phase Stability of Zirconia Bioceramics. Materials Science Forum, 2007, 561-565, 1561-1564.	0.3	0
103	Casting Process and Mechanical Properties of Large-Scale Extruded Mg-Zn-Y Alloys. , 0, , .		0
104	Influence of Impurities on Mechanical Properties of Electrodeposited Bulk Nanocrystalline Al. Advanced Materials Research, 0, 922, 574-579.	0.3	0
105	Design and Fabrication of New Ti-Based Ternary Metallic Glasses Based on Effective Atomic Radius in the Ti Solid Solution Calculated by <i>Ab Initio</i> Calculation. Advanced Materials Research, 0, 922, 671-675.	0.3	0
106	Preparatory Electrodeposition Process for High Purity Bulk Aluminum. Advanced Materials Research, 0, 922, 237-241.	0.3	0
107	Development of Electrodeposition Process Based on Chloride Electrolytes for Bulk Pure Fe with Plastic Deformability. Materials Transactions, 2019, 60, 130-135.	1.2	0
108	401 Ab inito studies on magnesium in slip deformation. The Proceedings of the Computational Mechanics Conference, 2001, 2001.14, 405-406.	0.0	0

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109	Effects of solute atoms on the stacking fault energy in magnesium from first principles. The Proceedings of the Computational Mechanics Conference, 2002, 2002.15, 175-176.	0.0	0
110	Development of Heat Resistant Magnesium Alloys from First-Principles Calculations. The Proceedings of the Computational Mechanics Conference, 2003, 2003.16, 515-516.	0.0	0
111	Effect of impurities on intergranular fracture in aluminum from the first-principles calculations. The Proceedings of the Computational Mechanics Conference, 2004, 2004.17, 277-278.	0.0	0
112	204 Effect of segregation of solute atoms on grain boundary Î³-surface in aluminum from the first-principles calculations. The Proceedings of the Computational Mechanics Conference, 2008, 2008.21, 137-138.	0.0	0
113	Optimizing on Hardening Behavior in Rapidly Solidified Processed Fe-13.5Cr-1.3Mo-0.4C Stainless Steel. Zairyo/Journal of the Society of Materials Science, Japan, 2008, 57, 704-711.	0.2	0
114	1014 Relation between grain boundary segregation energy and grain boundary energy in Al-Mg alloy : a first-principles study. The Proceedings of the Computational Mechanics Conference, 2009, 2009.22, 27-28.	0.0	0
115	OS19-1-3 Influence of Gloss Agents on Mechanical properties of Electrodeposited Bulk Nanocrystalline Ni. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2011, 2011.10, _OS19-1-3-.	0.0	0
116	OS19-1-4 Fabrication of Bulk Nanocrystalline Ni-W with Plastic Deformability by Electrodeposition. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2011, 2011.10, _OS19-1-4-.	0.0	0
117	OS19-4-4 Mechanical loss at elevated temperatures associated with grain boundary relaxation in fine-grained magnesium solid solutions. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2011, 2011.10, _OS19-4-4-.	0.0	0
118	Determination of Dynamic Friction Coefficients of Aluminum Alloys at Elevated Temperatures by Using Ring-Compression Tests. Zairyo/Journal of the Society of Materials Science, Japan, 2011, 60, 838-843.	0.2	0
119	OS18-1-2 Effect of trace silicon on high temperature ductility in Al-8Mg and Al-8Mg-0.2Zr alloys. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2011, 2011.10, _OS18-1-2-.	0.0	0
120	803 Lattice parameters and local lattice distortions in Al-based solid solutions from first principles. The Proceedings of the Computational Mechanics Conference, 2011, 2011.24, 229-230.	0.0	0
121	Fabrication of bulk nanocrystalline Ni-W with plastic deformability electrodeposited from a sulfamate bath. , 2013, , 3291-3296.		0
122	Construction of Constitutive Equation for Elevated Temperature Deformation in FeCrSi Fiber-Reinforced Al Alloy Composites. Zairyo/Journal of the Society of Materials Science, Japan, 2018, 67, 1000-1005.	0.2	0
123	Effects of Zr-addition on intergranular fracture of Alâ€“Cuâ€“Mg and Alâ€“Znâ€“Mgâ€“Cu alloys. Keikinzoku/Journal of Japan Institute of Light Metals, 2019, 69, 235-241.	0.4	0