

# Tokuteru Uesugi

## List of Publications by Year in descending order

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123  
papers

1,475  
citations

304743

22  
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395702

33  
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139  
all docs

139  
docs citations

139  
times ranked

1085  
citing authors

#	ARTICLE	IF	CITATIONS
1	New dislocation dissociation accompanied by anti-phase shuffling in the $\epsilon$ martensite phase of a Ti alloy. <i>Acta Materialia</i> , 2022, 227, 117705.	7.9	4
2	Solute cluster-induced precipitation and resultant surface hardening during nitriding of Fe-Al-V alloys. <i>Scripta Materialia</i> , 2021, 203, 114121.	5.2	11
3	Nano Clustering of Interstitial and Substitutional Solute Atoms in Steels. <i>Materia Japan</i> , 2020, 59, 128-133.	0.1	3
4	Prediction System for Solid Solubility Limits of Ag-, Cu-, Al-, and Mg-Based Alloys Using Artificial Neural Networks and First-Principles Calculations. <i>Materials Transactions</i> , 2020, 61, 2083-2090.	1.2	3
5	Mechanical properties and microstructures after abnormal grain growth in electrodeposited Ni-W alloys. <i>Materialia</i> , 2019, 8, 100481.	2.7	9
6	Artificial neural network assisted by first-principles calculations for predicting transformation temperatures in shape memory alloys. <i>International Journal of Modern Physics B</i> , 2019, 33, 1950055.	2.0	7
7	Al-8Mg alloy with high strength and high ductility by addition of a grain boundary strengthening element. <i>Materials Letters</i> , 2019, 245, 218-221.	2.6	12
8	Suppression of the thermal embrittlement induced by sulfur segregation to grain boundary in Ni-based electrodeposits. <i>Materialia</i> , 2019, 6, 100312.	2.7	8
9	Ductile electrodeposited Al from a dimethylsulfone bath with trace amounts of tin chloride. <i>Materials Letters</i> , 2019, 244, 192-194.	2.6	2
10	Effect of a small amount of Fe-addition on intergranular fracture of Al-7.3%mass%Mg alloys. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , 2019, 69, 457-464.	0.4	5
11	Reduction of impurity contents in aluminum plates electrodeposited from a dimethylsulfone-aluminum chloride bath. <i>Journal of Alloys and Compounds</i> , 2019, 783, 919-926.	5.5	8
12	Development of Electrodeposition Process Based on Chloride Electrolytes for Bulk Pure Fe with Plastic Deformability. <i>Materials Transactions</i> , 2019, 60, 130-135.	1.2	0
13	Revealing the intrinsic ductility of electrodeposited nanocrystalline metals. <i>Materials Letters</i> , 2019, 235, 224-227.	2.6	3
14	Increasing the W Content in Electrodeposited Bulk Nanocrystalline Ni-W Alloys with High Ductility. <i>Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan</i> , 2019, 70, 50-52.	0.2	1
15	Effects of Zr-addition on intergranular fracture of Al-Cu-Mg and Al-Zn-Mg-Cu alloys. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , 2019, 69, 235-241.	0.4	0
16	Fabrication of Electrodeposited Permalloys with High Strength and High Ductility. <i>Materials Transactions</i> , 2018, 59, 598-601.	1.2	7
17	Fabrication of Defect-Free Fe-Mn Alloys by Using Electrodeposition. <i>Materials Transactions</i> , 2018, 59, 935-938.	1.2	4
18	Construction of Constitutive Equation for Elevated Temperature Deformation in FeCrSi Fiber-Reinforced Al Alloy Composites. <i>Zairyo/Journal of the Society of Materials Science, Japan</i> , 2018, 67, 1000-1005.	0.2	0

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19	First-principles study of transformation strains and phase stabilities in $\hat{1}\hat{1}\hat{1}$ and $\hat{1}^2$ Ti-Nb-X alloys. Journal of Alloys and Compounds, 2017, 716, 37-45.	5.5	12
20	Improvement of High Temperature Strength by Addition of Vanadium Content of Ni-Cr-Mo Steel for Brake Discs. ISIJ International, 2017, 57, 550-557.	1.4	4
21	Effects of Solute Fe, Zn and Mg on Recrystallization in Aluminum. Materials Transactions, 2016, 57, 329-334.	1.2	7
22	Effect of Alloying Element X on Transformation Strains and Phase Stabilities between $\alpha'$ and $\beta$ ; Ti-Nb-X (X = Al, Sn, Zr, Ta) Ternary Alloys from First-Principles Calculations. Materials Transactions, 2016, 57, 263-268.	1.2	9
23	MIG welding of Mg-6Al-1Zn-2Ca alloys. Keikinzoku/Journal of Japan Institute of Light Metals, 2016, 66, 252-257.	0.4	2
24	Reduction in sulfur content of electrodeposited bulk nanocrystalline Fe-Ni alloys using manganese chloride. Materials Letters, 2016, 175, 86-88.	2.6	15
25	Texture Change during Superplastic Deformation in Fine-Grained Magnesium Alloys. Materials Science Forum, 2016, 838-839, 59-65.	0.3	2
26	Calculation of alloying effect on formation enthalpy of TiCu intermetallics from first-principles calculations for designing Ti-Cu-system metallic glasses. Philosophical Magazine Letters, 2016, 96, 27-34.	1.2	7
27	Mechanical Behavior of Electrodeposited Bulk Nanocrystalline Fe-Ni Alloys. Materials Research, 2015, 18, 95-100.	1.3	9
28	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
29	The evaluation parameters for glass-forming ability in Ti-Cu system metallic glasses. Materials Letters, 2015, 139, 73-76.	2.6	2
30	Development of Highly Efficient Saving Processes of Rare Earth in R-T-B Permanent Magnet. Physics Procedia, 2014, 54, 168-173.	1.2	2
31	Enhancement in mechanical properties of bulk nanocrystalline Fe-Ni alloys electrodeposited using propionic acid. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 607, 505-510.	5.6	39
32	Contribution of interstitial solute strengthening in aluminum. Philosophical Magazine Letters, 2014, 94, 63-71.	1.2	14
33	Fabrication of bulk nanocrystalline Fe-Ni alloys with high strength and high ductility by an electrodeposition. Materials Letters, 2014, 116, 71-74.	2.6	44
34	Prediction and fabrication of Ti-Zr-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
35	Strategy for Electrodeposition of Highly Ductile Bulk Nanocrystalline Metals with a Face-Centered Cubic Structure. Materials Transactions, 2014, 55, 1859-1866.	1.2	32
36	Application of First-principles Calculations for Solid-solution Alloys. Materia Japan, 2014, 53, 410-413.	0.1	1

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37	Accommodation mechanisms for grain boundary sliding as inferred from texture evolution during superplastic deformation. Philosophical Magazine, 2013, 93, 2913-2931.	1.6	34
38	Pre-electrodeposition process for improving tensile ductility of Al electrodeposited from a dimethylsulfone bath. Materials Letters, 2013, 109, 229-232.	2.6	14
39	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
40	Effect of additives on tensile properties of bulk nanocrystalline Ni-W alloys electrodeposited from a sulfamate bath. Materials Letters, 2013, 99, 65-67.	2.6	30
41	Effect of interstitial carbon on the mechanical properties of electrodeposited bulk nanocrystalline Ni. Acta Materialia, 2013, 61, 3360-3369.	7.9	74
42	Effect of orientation on tensile ductility of electrodeposited bulk nanocrystalline Ni-W alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 578, 318-322.	5.6	45
43	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
44	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
45	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
46	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
47	Fabrication of bulk nanocrystalline Ni-W with plastic deformability electrodeposited from a sulfamate bath. , 2013, , 3291-3296.		0
48	Segregation of Alkali and Alkaline Earth Metals at $\Sigma_{11}(113)[110]$ Grain Boundary in Aluminum from First-Principles Calculations. Materials Transactions, 2012, 53, 1699-1705.	1.2	16
49	First-principles calculation of grain boundary excess volume and free volume in nanocrystalline and ultrafine-grained aluminum. Keikinzo/Journal of Japan Institute of Light Metals, 2012, 62, 464-471.	0.4	2
50	Threshold stress for superplasticity in solid solution magnesium alloys. Philosophical Magazine, 2012, 92, 787-803.	1.6	26
51	Optimization of the Mg-Al-Zn-Ca-Sr alloy composition based on the parameter $A^2$ 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
52	Effects of Zn addition and aging treatment on tensile properties of Sn-Ag-Cu alloys. Journal of Alloys and Compounds, 2012, 527, 226-232.	5.5	40
53	Isotropic superplastic flow in textured magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 558, 656-662.	5.6	21
54	Improvement in tensile ductility of electrodeposited bulk nanocrystalline Ni-W by sulfamate bath using propionic acid. Microelectronic Engineering, 2012, 91, 98-101.	2.4	20

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55	Fabrication of bulk nanocrystalline Al electrodeposited from a dimethylsulfone bath. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 550, 363-366.	5.6	26
56	Influence of Gloss Agent Types on Tensile Properties of Bulk Nanocrystalline Ni Electrodeposited from Sulfamate Bath. <i>Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan</i> , 2011, 62, 686.	0.2	15
57	Influence of Bath Composition on Tensile Ductility in Electrodeposited Bulk Nanocrystalline Nickel. <i>Materials Transactions</i> , 2011, 52, 142-146.	1.2	15
58	Dynamic Friction Properties and Microstructural Evolution in AZ31 Magnesium Alloy at Elevated Temperature during Ring Compression Test. <i>Materials Transactions</i> , 2011, 52, 1575-1580.	1.2	1
59	Application of Electroforming Process to Bulk Amorphous Ni-W Alloy. <i>Materials Transactions</i> , 2011, 52, 37-40.	1.2	22
60	Effect of Mg content on the minimum grain size of Al-Mg alloys obtained by friction stir processing. <i>Scripta Materialia</i> , 2011, 64, 355-358.	5.2	88
61	Enhanced tensile ductility in bulk nanocrystalline nickel electrodeposited by sulfamate bath. <i>Materials Letters</i> , 2011, 65, 2351-2353.	2.6	29
62	First-principles calculation of grain boundary energy and grain boundary excess free volume in aluminum: role of grain boundary elastic energy. <i>Journal of Materials Science</i> , 2011, 46, 4199-4205.	3.7	47
63	Grain boundary relaxation in fine-grained magnesium solid solutions. <i>Philosophical Magazine</i> , 2011, 91, 4158-4171.	1.6	26
64	OS19-1-3 Influence of Gloss Agents on Mechanical properties of Electrodeposited Bulk Nanocrystalline Ni. <i>The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics</i> , 2011, 2011.10, _OS19-1-3-.	0.0	0
65	OS19-1-4 Fabrication of Bulk Nanocrystalline Ni-W with Plastic Deformability by Electrodeposition. <i>The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics</i> , 2011, 2011.10, _OS19-1-4-.	0.0	0
66	OS19-4-4 Mechanical loss at elevated temperatures associated with grain boundary relaxation in fine-grained magnesium solid solutions. <i>The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics</i> , 2011, 2011.10, _OS19-4-4-.	0.0	0
67	Determination of Dynamic Friction Coefficients of Aluminum Alloys at Elevated Temperatures by Using Ring-Compression Tests. <i>Zairyo/Journal of the Society of Materials Science, Japan</i> , 2011, 60, 838-843.	0.2	0
68	OS18-1-2 Effect of trace silicon on high temperature ductility in Al-8Mg and Al-8Mg-0.2Zr alloys. <i>The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics</i> , 2011, 2011.10, _OS18-1-2-.	0.0	0
69	803 Lattice parameters and local lattice distortions in Al-based solid solutions from first principles. <i>The Proceedings of the Computational Mechanics Conference</i> , 2011, 2011.24, 229-230.	0.0	0
70	Effect of Tool Materials on Dynamic Friction Characteristics and Microstructural Evolution at Elevated Temperature in Extruded AZ31 Magnesium Alloy. <i>Materials Transactions</i> , 2010, 51, 477-481.	1.2	3
71	Investigation on Dynamic Friction Properties of Extruded AZ31 Magnesium Alloy Using by Ring Upsetting Method. <i>Materials Transactions</i> , 2010, 51, 1249-1254.	1.2	10
72	Effect of Small Addition of Zinc on Creep Behavior of Tin. <i>Materials Transactions</i> , 2010, 51, 1747-1752.	1.2	16

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73	Tensile Properties of Bulk Nanocrystalline Ni and Ni-W Fabricated by Sulfamate Bath. Materials Science Forum, 2010, 654-656, 1114-1117.	0.3	12
74	Solute Segregation at $\{111\}$ 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
75	Effect of Pre-Introduced Shear Bands Direction on Deformation Behavior in $Zr_{55}Al_{10}Ni_5Cu_{30}$ Bulk Metallic Glass. Materials Transactions, 2009, 50, 2355-2358.		19
76	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
77	Softening by Coarsening of $B_2$ Phase Particles in Fe-Cr-Ni-Al-Zr Alloy. Materials Transactions, 2008, 49, 489-493.	1.2	2
78	Effect of Initial Grain Size on Dynamically Recrystallized Grain Size in AZ31 Magnesium Alloy. Materials Transactions, 2008, 49, 1979-1982.	1.2	31
79	204 Effect of segregation of solute atoms on grain boundary $\{111\}$ -surface in aluminum from the first-principles calculations. The Proceedings of the Computational Mechanics Conference, 2008, 2008.21, 137-138.	0.0	0
80	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
81	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
82	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
83	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
84	Effect of Second Phase Particles on Phase Stability of Zirconia in Hot Water. Advanced Materials Research, 2007, 26-28, 781-784.	0.3	1
85	Fabrication of the Bulk Amorphous Ni-W Alloy by an Electroforming Process. Materials Science Forum, 2007, 561-565, 1375-1378.	0.3	7
86	Stacking Fault Energy of Cu-Ga Alloys from First Principles. Materials Science Forum, 2007, 561-565, 1915-1918.	0.3	0
87	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
88	Dynamic Recrystallization during Hot Extrusion in AZ31 and AZ80 Alloys. Advanced Materials Research, 2007, 26-28, 449-452.	0.3	3
89	Dynamic Recrystallization during Hot Extrusion in Mg-3Al-0.1Y Alloy. Advanced Materials Research, 2007, 26-28, 433-436.	0.3	2
90	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

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91	Effect of Small Amount of Dopant on Phase Stability of Zirconia Bioceramics. Materials Science Forum, 2007, 561-565, 1561-1564.	0.3	0
92	Mechanical Properties of Twin Roll Cast AZ91 Magnesium Alloy at Room Temperature. Advanced Materials Research, 2007, 26-28, 145-148.	0.3	1
93	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
94	Fabrication of Homogeneous Bulk Nanocrystalline Ni-W Alloys by an Electroforming Process. Advanced Materials Research, 2007, 26-28, 691-694.	0.3	7
95	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
96	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
97	Deformation Mechanism of Nanocrystalline Al-Fe Alloys by Analysis from Ab-Initio Calculations. Materials Science Forum, 2006, 503-504, 209-214.	0.3	10
98	Elastic Constants of AlLi from First Principles. Materials Transactions, 2005, 46, 1117-1121.	1.2	32
99	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
100	Grain Boundary Sliding of $\Sigma 5(001)$ Twist Grain Boundary in Aluminium Bicrystal from First-Principles Calculations. Materials Science Forum, 2004, 447-448, 27-32.	0.3	11
101	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
102	Optimum designs of additional elements from first-principles simulations. Keikinzoku/Journal of Japan Institute of Light Metals, 2004, 54, 82-89.	0.4	24
103	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
104	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
105	Molecular Dynamics Simulation of Triazine Dithiol / MgO Interface. Materials Science Forum, 2003, 419-422, 943-948.	0.3	1
106	Ab initio study on divacancy binding energies in aluminum and magnesium. Physical Review B, 2003, 68, .	3.2	62
107	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
108	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

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109	<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
110	401 Ab initio studies on magnesium in slip deformation. The Proceedings of the Computational Mechanics Conference, 2001, 2001.14, 405-406.	0.0	0
111	Ab Initio Study on the Structure of Mg-Li Alloys. Materials Science Forum, 2000, 350-351, 49-54.	0.3	10
112	Casting Process and Mechanical Properties of Large-Scale Extruded Mg-Zn-Y Alloys. , 0, , .		0
113	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
114	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
115	Influence of Impurities on Mechanical Properties of Electrodeposited Bulk Nanocrystalline Al. Advanced Materials Research, 0, 922, 574-579.	0.3	0
116	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
117	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
118	Preparatory Electrodeposition Process for High Purity Bulk Aluminum. Advanced Materials Research, 0, 922, 237-241.	0.3	0
119	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
120	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
121	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
122	Mechanical Properties of Twin Roll Cast AZ91 Magnesium Alloy at Room Temperature. Advanced Materials Research, 0, , 145-148.	0.3	2
123	Fabrication of Homogeneous Bulk Nanocrystalline Ni-W Alloys by an Electroforming Process. Advanced Materials Research, 0, , 691-694.	0.3	2