Shoichi Hirosawa

List of Publications by Year in Descending Order

61 papers	1,059 citations	20 h-index	31 g-index
62 ext. papers	1,189 ext. citations	2.1 avg, IF	4.13 L-index

#	Paper	IF	Citations
61	Continuous high-pressure torsion of pure Al and Al-2 wt% Fe alloy using multi-wires. *Journal of Materials Science*, **2021**, 56, 8679-8688	4.3	0
60	Homogeneous Strain Introduction Using Reciprocation Technique in High-Pressure Sliding. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2021**, 52, 3860-3870	2.3	
59	Development of thermally stable powder metallurgy Al–Mn alloy extrusions and prediction of their terminal strength after prolonged service periods at high temperatures. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 793, 139813	5.3	2
58	First-principles calculation of elastic properties of Cu-Zn intermetallic compounds for improving the stiffness of aluminum alloys. *Computational Materials Science*, **2020**, 174, 109479	3.2	4
57	Microstructure evolution and mechanical properties of Al-Cu-Li alloys with different rolling schedules and subsequent artificial ageing heat treatment. *Materials Characterization*, **2020**, 170, 110676	3.9	6
56	Achieving highly strengthened Al–Cu–Mg alloy by grain refinement and grain boundary segregation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 793, 139668	5.3	16
55	Considerable improvement in elastic moduli and the underlying mechanism of Al-Cu-Zn alloy subjected to aging treatments. *Materialia*, **2020**, 14, 100911	3.2	0
54	Precipitate microstructures, mechanical properties and corrosion resistance of Al-1.0 wt%Cu-2.5 wt%Li alloys with different micro-alloyed elements addition. *Materials Characterization*, **2020**, 167, 110528	3.9	11
53	Microstructures and the Mechanical Properties of the Al–Li–Cu Alloy Strengthened by the Combined Use of Accumulative Roll Bonding and Aging. *Advanced Engineering Materials*, **2020**, 22, 1900561	3.5	3
52	Development of High-Strength Bolt Material of Al–Mg–Si Alloy by ECAP and Various Aging Treatments. *Materials Transactions*, **2019**, 60, 1680-1687	1.3	0
51	Concurrent strengthening of ultrafine-grained age-hardenable Al-Mg alloy by means of high-pressure torsion and spinodal decomposition. *Acta Materialia*, **2017**, 131, 57-64	8.4	25
50	Strengthening of A2024 alloy by high-pressure torsion and subsequent aging. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 704, 112-118	5.3	27
49	Three Strategies to Achieve Concurrent Strengthening by Ultrafine-grained and Precipitation Hardenings for Severely Deformed Age-hardenable Aluminum Alloys. *Materia Japan*, **2016**, 55, 45-52	0.1	1
48	Three Strategies to Achieve Concurrent Strengthening by Ultrafine-Grained and Precipitation Hardenings for Severely Deformed Age-Hardnable Aluminum Alloys. *Advanced Materials Research*, **2016**, 1135, 161-166	0.5	3
47	Aging Behavior of Al 6061 Alloy Processed by High-Pressure Torsion and Subsequent Aging. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 2664-2673	2.3	22
46	Comparative and complementary characterization of precipitate microstructures in Al–Mg–Si(–Li) alloys by transmission electron microscopy, energy dispersive X-ray spectroscopy and atom probe tomography. *Journal of Alloys and Compounds*, **2015**, 622, 765-770	5.7	11
45	Softening by severe plastic deformation and hardening by annealing of aluminum–zinc alloy: Significance of elemental and spinodal decompositions. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 610, 17-27	5.3	35

44	Aging Behavior of Ultrafine-Grained Al–Mg–Si–X (X = Cu, Ag, Pt, Pd) Alloys Produced by High-Pressure Torsion. *Materials Transactions*, **2014**, 55, 640-645	1.3	4
43	Nano-scale microstructural analysis of aluminum alloys by three-dimensional atom probe. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2014**, 64, 542-550	0.3	1
42	Thermodynamic Assessment and Determination of Spinodal Lines for Al-Zn Binary System. *Materials Science Forum*, **2014**, 794-796, 634-639	0.4	3
41	Effects of Cu or Li Addition and Multi-Step Aging Conditions on the Bake-Hardenability of an Al-Mg-Si Alloy. *Materials Science Forum*, **2014**, 794-796, 1152-1156	0.4	2
40	TEM Observation of HPT-Processed Cu-Added Excess Mg-Type Al-Mg-Si Alloys. *Materials Science Forum*, **2014**, 794-796, 811-814	0.4	
39	Effect of HPT on Age-Hardening Behavior in Cu-Added Excess Mg-Type Al-Mg-Si Alloys. *Advanced Materials Research*, **2014**, 922, 487-490	0.5	
38	Mechanical properties and microstructure of 6061 aluminum alloy severely deformed by ARB process and subsequently aged at low temperatures. *IOP Conference Series: Materials Science and Engineering*, **2014**, 63, 012088	0.4	10
37	Methods for Designing Concurrently Strengthened Severely Deformed Age-Hardenable Aluminum Alloys by Ultrafine-Grained and Precipitation Hardenings. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2013**, 44, 3921-3933	2.3	37
36	Aging behavior and microstructure of aged excess Mg type Al^|^#8211;Mg^|^#8211;Si alloys after HPT processing. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2013**, 63, 406-412	0.3	5
35	Age-hardening of an Al□Li□Cu□Mg alloy (2091) processed by high-pressure torsion. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 546, 82-89	5.3	42
34	Experimental and Computational Studies of Competitive Precipitation Behavior Observed in Microstructures with High Dislocation Density and Ultra-Fine Grains. *Materials Science Forum*, **2012**, 706-709, 1787-1792	0.4	5
33	Simultaneous strengthning due to grain refinement and fine precipitation. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2012**, 62, 398-405	0.3	6
32	Aging behavior of ultrafine-grained Al^|^ndash;Mg^|^ndash;Si^|^ndash;X (X=Cu, Ag, Pt, Pd) alloys produced by high-pressure torsion. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2012**, 62, 448-453	0.3	1
31	Development of Age-Hardening Technology for Ultrafine-Grained Al-Li-Cu Alloys Fabricated by High-Pressure Torsion **2012**, 939-944		
30	Experimental and Computational Studies of Competitive Precipitation Behavior Observed in an Al-Mg-Si Alloy with High Dislocation Density and Ultrafine-Grained Microstructures. *Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals*, **2011**, 75, 283-290	0.4	11
29	Effects of Microalloying Tin and Combined Addition of Silver and Tin on the Formation of Precipitate Free Zones and Mechanical Properties in Al-Zn-Mg Alloys. *Materials Transactions*, **2011**, 52, 900-905	1.3	27
28	Effects of microalloying tin and combined addition of silver and tin on the formation of precipitate free zones and mechanical properties in Al□Zn□Mg alloys. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2011**, 61, 316-321	0.3	1
27	Influence of HPT or Rolling on Age-Hardening in Al-Mg-Si Alloys. *Advanced Materials Research*, **2011**, 409, 603-606	0.5	

26	Aging Behavior of Al-Li-Cu-Mg Alloy Processed by High-Pressure Torsion. *Materials Science Forum*, **2010**, 654-656, 1243-1246	0.4	1
25	Aging Behavior of Al-Mg-Si Alloys Processed by High-Pressure Torsion. *Materials Science Forum*, **2010**, 667-669, 259-264	0.4	3
24	Combined Effect of Pre-Straining and Pre-Aging on Bake-Hardening Behavior of an Al-0.6 mass%Mg-1.0 mass%Si Alloy. *Materials Transactions*, **2010**, 51, 325-332	1.3	32
23	Atom probe tomography of nanoscale microstructures within precipitate free zones in Al□Zn□Mg(□Ag) alloys. *Acta Materialia*, **2010**, 58, 5714-5723	8.4	72
22	Determining the composition of small features in atom probe: bcc Cu-rich precipitates in an Fe-rich matrix. *Ultramicroscopy*, **2009**, 109, 535-40	3.1	65
21	First-Principles Calculation of Interaction Energies between Solutes and/or Vacancies for Predicting Atomistic Behaviors of Microalloying Elements in Aluminum Alloys. *Materials Science Forum*, **2007**, 561-565, 283-286	0.4	53
20	3DAP Characterization and Thermal Stability of Nano-Scale Clusters in Al-Mg-Si Alloys. *Materials Science Forum*, **2006**, 519-521, 245-250	0.4	45
19	Improvement of Bake-Hardening Response of Al-Mg-Cu Alloys by Means of Nanocluster Assist Processing (NCAP) Technique. *Materials Science Forum*, **2006**, 519-521, 215-220	0.4	28
18	3DAP Analysis and Computer Simulation of Nanocluster Formation in the Initial Aging Stage of Al-Zn Alloys. *Materials Science Forum*, **2006**, 519-521, 437-442	0.4	3
17	Quantitative Correlation between Strength, Ductility and Precipitate Microstructures with PFZ in Al-Zn-Mg(-Ag, Cu) Alloys. *Materials Science Forum*, **2006**, 519-521, 431-436	0.4	21
16	?????????????,??□?????????????????????????????????????. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2006**, 56, 621-628	0.3	26
15	Effects of precipitate microstructures near grain boundaries on strength and ductility in Al-Zn-Mg (-Ag) alloys. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2006**, 56, 644-650	0.3	15
14	3DAP nano-scale analysis of solute clusters formed in a naturally aged Al-Zn alloy. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2006**, 56, 662-666	0.3	5
13	Effects of Ag addition on age-hardening and nano-scale precipitate microstructures of an Al-3%Mg-1%Cu alloy. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2006**, 56, 673-679	0.3	11
12	Experimental and Computational Investigation of Formation of Precipitate Free Zones in an Al–Cu Alloy. *Materials Transactions*, **2005**, 46, 1230-1234	1.3	20
11	Nano-Scale Clusters Formed in the Early Stage of Phase Decomposition of Al-Mg-Si Alloys. *Materials Science Forum*, **2005**, 475-479, 357-360	0.4	11
10	Quantitative characterization of precipitate free zones in Al□Zn□Mg(□Ag) alloys by microchemical analysis and nanoindentation measurement. *Science and Technology of Advanced Materials*, **2004**, 5, 491-496	7.1	70
9	Atomic-scale analysis of phase decomposition behavior of alloys by Monte Carlo computer simulation. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2004**, 54, 121-127	0.3	5

List of Publications

8	Roles of microalloying elements on the cluster formation in the initial stage of phase decomposition of Al-based alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2003**, 34, 2745-2755	2.3	74
7	Monte Carlo computer simulation of the atomistic behaviour of microalloying elements in Al-Li alloys. *Modelling and Simulation in Materials Science and Engineering*, **2001**, 9, 129-141	2	13
6	Classification of the role of microalloying elements in phase decomposition of Al based alloys. *Acta Materialia*, **2000**, 48, 1797-1806	8.4	85
5	Computer simulation of the effects of trace-additional Cu and Mg elements on the .DELTA.Pphase precipitation in an Al-Li alloy.. *Keikinzoku/Journal of Japan Institute of Light Metals*, **1999**, 49, 51-56	0.3	4
4	Effects of Mg addition on the kinetics of low-temperature precipitation in Al□□Cu□Ag□r alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **1998**, 242, 195-201	5.3	46
3	Comparison between Resistivity Changes and Monte Carlo Simulation for GP Zone Formation in Al–Cu Base Ternary Alloys. *Materials Transactions, JIM*, **1998**, 39, 139-146		29
2	Microstructural Change and Mechanical Properties with Isochronal Aging in Al-Ni-Gd Metallic Glasses1235-1240		
1	Development of Age-Hardening Technology for Ultrafine-Grained Al-Li-Cu Alloys Fabricated by High-Pressure Torsion939-944		1