

# Shoichi Hiroswawa

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Classification of the role of microalloying elements in phase decomposition of Al based alloys. <i>Acta Materialia</i> , <b>2000</b> , 48, 1797-1806	8.4	85
60	Roles of microalloying elements on the cluster formation in the initial stage of phase decomposition of Al-based alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2003</b> , 34, 2745-2755	2.3	74
59	Atom probe tomography of nanoscale microstructures within precipitate free zones in AlZnMg(Ag) alloys. <i>Acta Materialia</i> , <b>2010</b> , 58, 5714-5723	8.4	72
58	Quantitative characterization of precipitate free zones in AlZnMg(Ag) alloys by microchemical analysis and nanoindentation measurement. <i>Science and Technology of Advanced Materials</i> , <b>2004</b> , 5, 491-496	7.1	70
57	Determining the composition of small features in atom probe: bcc Cu-rich precipitates in an Fe-rich matrix. <i>Ultramicroscopy</i> , <b>2009</b> , 109, 535-40	3.1	65
56	First-Principles Calculation of Interaction Energies between Solutes and/or Vacancies for Predicting Atomistic Behaviors of Microalloying Elements in Aluminum Alloys. <i>Materials Science Forum</i> , <b>2007</b> , 561-565, 283-286	0.4	53
55	Effects of Mg addition on the kinetics of low-temperature precipitation in AlCuAgZr alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>1998</b> , 242, 195-201	5.3	46
54	3DAP Characterization and Thermal Stability of Nano-Scale Clusters in Al-Mg-Si Alloys. <i>Materials Science Forum</i> , <b>2006</b> , 519-521, 245-250	0.4	45
53	Age-hardening of an AlCuMg alloy (2091) processed by high-pressure torsion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2012</b> , 546, 82-89	5.3	42
52	Methods for Designing Concurrently Strengthened Severely Deformed Age-Hardenable Aluminum Alloys by Ultrafine-Grained and Precipitation Hardening. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2013</b> , 44, 3921-3933	2.3	37
51	Softening by severe plastic deformation and hardening by annealing of aluminum-zinc alloy: Significance of elemental and spinodal decompositions. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2014</b> , 610, 17-27	5.3	35
50	Combined Effect of Pre-Straining and Pre-Aging on Bake-Hardening Behavior of an Al-0.6 mass%Mg-1.0 mass%Si Alloy. <i>Materials Transactions</i> , <b>2010</b> , 51, 325-332	1.3	32
49	Comparison between Resistivity Changes and Monte Carlo Simulation for GP Zone Formation in Al-Cu Base Ternary Alloys. <i>Materials Transactions, JIM</i> , <b>1998</b> , 39, 139-146		29
48	Improvement of Bake-Hardening Response of Al-Mg-Cu Alloys by Means of Nanocluster Assist Processing (NCAP) Technique. <i>Materials Science Forum</i> , <b>2006</b> , 519-521, 215-220	0.4	28
47	Strengthening of A2024 alloy by high-pressure torsion and subsequent aging. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2017</b> , 704, 112-118	5.3	27
46	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. <i>Materials Transactions</i> , <b>2011</b> , 52, 900-905	1.3	27
45	????????????, ??. <i>Keikin-zoku/Journal of Japan Institute of Light Metals</i> , <b>2006</b> , 56, 621-628	0.3	26

44	Concurrent strengthening of ultrafine-grained age-hardenable Al-Mg alloy by means of high-pressure torsion and spinodal decomposition. <i>Acta Materialia</i> , <b>2017</b> , 131, 57-64	8.4	25
43	Aging Behavior of Al 6061 Alloy Processed by High-Pressure Torsion and Subsequent Aging. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2015</b> , 46, 2664-2673	2.3	22
42	Quantitative Correlation between Strength, Ductility and Precipitate Microstructures with PFZ in Al-Zn-Mg(-Ag, Cu) Alloys. <i>Materials Science Forum</i> , <b>2006</b> , 519-521, 431-436	0.4	21
41	Experimental and Computational Investigation of Formation of Precipitate Free Zones in an Al-Cu Alloy. <i>Materials Transactions</i> , <b>2005</b> , 46, 1230-1234	1.3	20
40	Achieving highly strengthened Al-Cu-Mg alloy by grain refinement and grain boundary segregation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 793, 139668	5.3	16
39	Effects of precipitate microstructures near grain boundaries on strength and ductility in Al-Zn-Mg (-Ag) alloys. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , <b>2006</b> , 56, 644-650	0.3	15
38	Monte Carlo computer simulation of the atomistic behaviour of microalloying elements in Al-Li alloys. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2001</b> , 9, 129-141	2	13
37	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. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 622, 765-770	5.7	11
36	Experimental and Computational Studies of Competitive Precipitation Behavior Observed in an Al-Mg-Si Alloy with High Dislocation Density and Ultrafine-Grained Microstructures. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , <b>2011</b> , 75, 283-290	0.4	11
35	Effects of Ag addition on age-hardening and nano-scale precipitate microstructures of an Al-3%Mg-1%Cu alloy. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , <b>2006</b> , 56, 673-679	0.3	11
34	Nano-Scale Clusters Formed in the Early Stage of Phase Decomposition of Al-Mg-Si Alloys. <i>Materials Science Forum</i> , <b>2005</b> , 475-479, 357-360	0.4	11
33	Precipitate microstructures, mechanical properties and corrosion resistance of Al-1.0 wt%Cu-2.5 wt%Li alloys with different micro-alloyed elements addition. <i>Materials Characterization</i> , <b>2020</b> , 167, 110528	3.9	11
32	Mechanical properties and microstructure of 6061 aluminum alloy severely deformed by ARB process and subsequently aged at low temperatures. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2014</b> , 63, 012088	0.4	10
31	Simultaneous strengthening due to grain refinement and fine precipitation. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , <b>2012</b> , 62, 398-405	0.3	6
30	Microstructure evolution and mechanical properties of Al-Cu-Li alloys with different rolling schedules and subsequent artificial ageing heat treatment. <i>Materials Characterization</i> , <b>2020</b> , 170, 110676	3.9	6
29	Aging behavior and microstructure of aged excess Mg type Al-Mg-Si alloys after HPT processing. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , <b>2013</b> , 63, 406-412	0.3	5
28	Experimental and Computational Studies of Competitive Precipitation Behavior Observed in Microstructures with High Dislocation Density and Ultra-Fine Grains. <i>Materials Science Forum</i> , <b>2012</b> , 706-709, 1787-1792	0.4	5
27	3DAP nano-scale analysis of solute clusters formed in a naturally aged Al-Zn alloy. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , <b>2006</b> , 56, 662-666	0.3	5

26	Atomic-scale analysis of phase decomposition behavior of alloys by Monte Carlo computer simulation. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , <b>2004</b> , 54, 121-127	0.3	5
25	Aging Behavior of Ultrafine-Grained Al&ndash;Mg&ndash;Si&ndash;X (X = Cu, Ag, Pt, Pd) Alloys Produced by High-Pressure Torsion. <i>Materials Transactions</i> , <b>2014</b> , 55, 640-645	1.3	4
24	Computer simulation of the effects of trace-additional Cu and Mg elements on the .DELTA.Pphase precipitation in an Al-Li alloy.. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , <b>1999</b> , 49, 51-56	0.3	4
23	First-principles calculation of elastic properties of Cu-Zn intermetallic compounds for improving the stiffness of aluminum alloys. <i>Computational Materials Science</i> , <b>2020</b> , 174, 109479	3.2	4
22	Three Strategies to Achieve Concurrent Strengthening by Ultrafine-Grained and Precipitation Hardenings for Severely Deformed Age-Hardenable Aluminum Alloys. <i>Advanced Materials Research</i> , <b>2016</b> , 1135, 161-166	0.5	3
21	Thermodynamic Assessment and Determination of Spinodal Lines for Al-Zn Binary System. <i>Materials Science Forum</i> , <b>2014</b> , 794-796, 634-639	0.4	3
20	Aging Behavior of Al-Mg-Si Alloys Processed by High-Pressure Torsion. <i>Materials Science Forum</i> , <b>2010</b> , 667-669, 259-264	0.4	3
19	3DAP Analysis and Computer Simulation of Nanocluster Formation in the Initial Aging Stage of Al-Zn Alloys. <i>Materials Science Forum</i> , <b>2006</b> , 519-521, 437-442	0.4	3
18	Microstructures and the Mechanical Properties of the AlLiCu Alloy Strengthened by the Combined Use of Accumulative Roll Bonding and Aging. <i>Advanced Engineering Materials</i> , <b>2020</b> , 22, 1900561	3.5	3
17	Development of thermally stable powder metallurgy AlMn alloy extrusions and prediction of their terminal strength after prolonged service periods at high temperatures. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 793, 139813	5.3	2
16	Effects of Cu or Li Addition and Multi-Step Aging Conditions on the Bake-Hardenability of an Al-Mg-Si Alloy. <i>Materials Science Forum</i> , <b>2014</b> , 794-796, 1152-1156	0.4	2
15	Three Strategies to Achieve Concurrent Strengthening by Ultrafine-grained and Precipitation Hardenings for Severely Deformed Age-hardenable Aluminum Alloys. <i>Materia Japan</i> , <b>2016</b> , 55, 45-52	0.1	1
14	Nano-scale microstructural analysis of aluminum alloys by three-dimensional atom probe. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , <b>2014</b> , 64, 542-550	0.3	1
13	Effects of microalloying tin and combined addition of silver and tin on the formation of precipitate free zones and mechanical properties in AlZnMg alloys. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , <b>2011</b> , 61, 316-321	0.3	1
12	Aging Behavior of Al-Li-Cu-Mg Alloy Processed by High-Pressure Torsion. <i>Materials Science Forum</i> , <b>2010</b> , 654-656, 1243-1246	0.4	1
11	Aging behavior of ultrafine-grained Al^&ndash;Mg^&ndash;Si^&ndash;X (X=Cu, Ag, Pt, Pd) alloys produced by high-pressure torsion. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , <b>2012</b> , 62, 448-453	0.3	1
10	Development of Age-Hardening Technology for Ultrafine-Grained Al-Li-Cu Alloys Fabricated by High-Pressure Torsion939-944		1
9	Development of High-Strength Bolt Material of AlMgSi Alloy by ECAP and Various Aging Treatments. <i>Materials Transactions</i> , <b>2019</b> , 60, 1680-1687	1.3	0

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| 8 | Considerable improvement in elastic moduli and the underlying mechanism of Al-Cu-Zn alloy subjected to aging treatments. <i>Materialia</i> , <b>2020</b> , 14, 100911   | 3.2 | ○ |
| 7 | Continuous high-pressure torsion of pure Al and Al-2 wt% Fe alloy using multi-wires. <i>Journal of Materials Science</i> , <b>2021</b> , 56, 8679-8688  | 4.3 | ○ |
| 6 | TEM Observation of HPT-Processed Cu-Added Excess Mg-Type Al-Mg-Si Alloys. <i>Materials Science Forum</i> , <b>2014</b> , 794-796, 811-814   | 0.4 |   |
| 5 | Effect of HPT on Age-Hardening Behavior in Cu-Added Excess Mg-Type Al-Mg-Si Alloys. <i>Advanced Materials Research</i> , <b>2014</b> , 922, 487-490   | 0.5 |   |
| 4 | Influence of HPT or Rolling on Age-Hardening in Al-Mg-Si Alloys. <i>Advanced Materials Research</i> , <b>2011</b> , 409, 603-606  | 0.5 |   |
| 3 | Development of Age-Hardening Technology for Ultrafine-Grained Al-Li-Cu Alloys Fabricated by High-Pressure Torsion <b>2012</b> , 939-944   |     |   |
| 2 | Microstructural Change and Mechanical Properties with Isochronal Aging in Al-Ni-Gd Metallic Glasses 1235-1240   |     |   |
| 1 | Homogeneous Strain Introduction Using Reciprocation Technique in High-Pressure Sliding. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2021</b> , 52, 3860-3870 <sup>2,3</sup> |     |   |