Motohiro Yuasa

List of Publications by Year
in descending order

62 papers	1,053 citations	566801 15 h-index	454577 30 g-index
62 all docs	62 docs citations	62 times ranked	891 citing authors

#	Article	IF	Citations
1	Discharge properties of Mgâ€“Alâ€“Mnâ€“Ca and Mgâ€“Alâ€“Mn alloys as anode materials for primary magnesiumâ€“air batteries. Journal of Power Sources, 2015, 297, 449-456.	4.0	142
2	Effects of group II elements on the cold stretch formability of Mgâ€“Zn alloys. Acta Materialia, 2015, 83, 294-303.	3.8	120
3	Improved plastic anisotropy of Mgâ€“Znâ€“Ca alloys exhibiting high-stretch formability: A first-principles study. Acta Materialia, 2014, 65, 207-214.	3.8	90
4	Microstructure and mechanical properties of AZX912 magnesium alloy extruded at different temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 679, 162-171.	2.6	54
5	Bond mobility mechanism in grain boundary embrittlement: First-principles tensile tests of Fe with a P-segregated<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î£</mml:mi><mml:mn>3</mml:mn></mml:mrow></mml:math>grain boundary. Physical Review B, 2010, 82, .	1.1	47
6	Effects of Microstructure on Discharge Behavior of AZ91 Alloy as Anode for Mg–Air Battery. Materials Transactions, 2014, 55, 1202-1207.	0.4	38
7	Effects of segregated Cu on an Fe grain boundary by first-principles tensile tests. Journal of Physics Condensed Matter, 2010, 22, 505705.	0.7	34
8	Mechanical properties of a nanocrystalline Coâ€“Cu alloy with a high-density fine nanoscale lamellar structure. Scripta Materialia, 2008, 58, 731-734.	2.6	31
9	Corrosion Behavior of Severely Deformed Pure and Single-Phase Materials. Materials Transactions, 2019, 60, 1243-1255.	0.4	31
10	Effects of initial microstructure on the microstructural evolution and stretch formability of warm rolled Mgâ€“3Alâ€“1Zn alloy sheets. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 587, 150-160.	2.6	28
11	Interaction mechanisms of screw dislocations with and twin boundaries in Mg. Philosophical Magazine, 2014, 94, 285-305.	0.7	24
12	Interactions of a screw dislocation with a {1 0<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mover accent="true"><mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml:mrow><mml:mo>Â¯</mml:mo></mml:mrow></mml:mover></m 0<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si2.gif" overflow="scroll"><mml:mrow><mml:mover accent="true">	3.8	23
13	Hot compression deformation behavior of Mgâ€“Yâ€“Zn alloys containing LPSO phase. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 792, 139777.	2.6	19
14	Quantitative kink boundaries strengthening effect of Mg-Y-Zn alloy containing LPSO phase. Materials Letters, 2021, 292, 129625.	1.3	19
15	First-principles study in Fe grain boundary with Al segregation: variation in electronic structures with straining. Philosophical Magazine, 2013, 93, 635-647.	0.7	16
16	Effect of segregated elements on the interactions between twin boundaries and screw dislocations in Mg. Journal of Applied Physics, 2015, 118, .	1.1	15
17	First-principles Study of Hydrogen-induced Embrittlement in Fe Grain Boundary with Cr Segregation. ISIJ International, 2015, 55, 1131-1134.	0.6	15
18	Enhanced Corrosion Resistance of Ultrafine-Grained Fe-Cr Alloys with Subcritical Cr Contents for Passivity. Metals, 2018, 8, 149.	1.0	15

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19	twins in the rolled Mgâ€"Znâ€"Ca alloy with high formability. Journal of Materials Research, 2014, 29, 3024-3031.	1.2	14
20	Age-hardening mechanism for nanocrystalline Niâ€"P alloys synthesized by electrodeposition. Surface and Coatings Technology, 2014, 253, 154-160.	2.2	13
21	Mechanical and chemical effects of solute elements on generalized stacking fault energy of Mg. Journal of Materials Research, 2014, 29, 2576-2586.	1.2	13
22	Effect of segregated Al on and twinning in Mg. Journal of Materials Research, 2015, 30, 3629-3641.	1.2	13
23	Atomic simulation of grain boundary sliding in Co/Cu two-phase bicrystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 2629-2636.	2.6	12
24	Atomic simulations of dislocation emission from Cu/Cu and Co/Cu grain boundaries. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 528, 260-267.	2.6	12
25	First-Principles Study on Enhanced Grain Boundary Embrittlement of Iron by Phosphorus Segregation. Materials Transactions, 2011, 52, 1369-1373.	0.4	12
26	Microstructural and textural evolution of pure titanium during differential speed rolling and subsequent annealing. Journal of Materials Science, 2014, 49, 3166-3176.	1.7	12
27	Texture Formation and Room-Temperature Formability of Rolled Mg–Zn–Ce Alloys. Materials Transactions, 2014, 55, 1190-1195.	0.4	12
28	Effects of Vacancies on Deformation Behavior in Nanocrystalline Nickel. Materials Transactions, 2008, 49, 2315-2321.	0.4	11
29	Deformation behavior of an ultrafine grained two phase Coâ€"Cu alloy processed by electrodeposition. Scripta Materialia, 2010, 63, 132-135.	2.6	11
30	Fabrication of dense ZrB2/B4C composites using pulsed electric current pressure sintering and evaluation of their high-temperature bending strength. Ceramics International, 2020, 46, 18478-18486.	2.3	11
31	Corrosion Behavior of Ultrafine-Grained CoCrFeMnNi High-Entropy Alloys Fabricated by High-Pressure Torsion. Materials, 2022, 15, 1007.	1.3	11
32	Ferromagnetic Properties of Co-Cu Alloy with Nanoscale Lamellar Structure. Materials Transactions, 2009, 50, 419-422.	0.4	10
33	Enhanced grain boundary embrittlement of an Fe grain boundary segregated by hydrogen (H). Journal of Materials Research, 2012, 27, 1589-1597.	1.2	9
34	Saturation magnetization in supersaturated solid solution of Coâ€"Cu alloy. Applied Physics Letters, 2009, 95, .	1.5	8
35	Hydrogen embrittlement in a magnesium grain boundary: a first-principles study. Journal of Physics Condensed Matter, 2012, 24, 085701.	0.7	8
36	Enhanced Room-Temperature Stretch Formability of Mg–0.2 mass%Ce Alloy Sheets Processed by Combination of High-Temperature Pre-Annealing and Warm Rolling. Materials Transactions, 2015, 56, 1096-1101.	0.4	8

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37	Numerical Analysis of a New Nonlinear Twist Extrusion Process. Metals, 2019, 9, 513.	1.0	8
38	Effects of stacking fault energy and solute atoms on microstructural evolution of Cu, Ag and Cuâ€"Al alloys processed by equal channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 803, 140716.	2.6	8
39	Electrodeposition of nanocrystalline nickel embedded with inert nanoparticles formed via inverse hydrolysis. Applied Surface Science, 2018, 458, 612-618.	3.1	7
40	Atomic simulations of $(1 0ar {1}2)$, $(1 0ar {1}1)$ twinning and $(1 0ar {1}2)$ detwinning in magnesium. Journal of Physics Condensed Matter, 2014, 26, 015003.	0.7	6
41	Fabrication and anisotropic electronic property for oriented Li1+âˆ'Nb1âˆ'âˆ'3Ti+4O3 solid solution by slip casting in a high magnetic field. Advanced Powder Technology, 2017, 28, 2373-2379.	2.0	6
42	Kink bands strengthening of Mg-Y-Zn alloy via various wrought-processing. Materials Letters, 2021, 304, 130653.	1.3	6
43	Changes in the grain boundaries of a nanolamellar structured Coâ€"Cu alloy by annealing. Scripta Materialia, 2009, 61, 371-374.	2.6	5
44	Anomalous mechanical characteristics of Au/Cu nanocomposite processed by Cu electroplating. Philosophical Magazine, 2015, 95, 1499-1510.	0.7	5
45	Potential of High Compressive Ductility of Ultrafine Grained Copper Fabricated by Severe Plastic Deformation. Metals, 2020, 10, 1503.	1.0	5
46	Effect of solute Mn on microstructural evolution of Cuâ€"Mn alloys processed by equal channel angular pressing. Journal of Materials Research, 2021, 36, 2890-2902.	1.2	5
47	A superelastic nanocrystalline Cuâ€"Sn alloy thin film processed by electroplating. Materials Letters, 2008, 62, 4473-4475.	1.3	4
48	Effect of Annealing on Mechanical Properties and Nanoscale Lamellar Structure in Co-Cu Alloy. Materials Transactions, 2009, 50, 570-578.	0.4	4
49	Grain Boundary Embrittlement of Fe Induced by P Segregation: First-Principles Tensile Tests. Advanced Materials Research, 0, 409, 455-460.	0.3	4
50	Visible-light photocatalysis of ZnO deposited on nanoporous Au. Applied Physics A: Materials Science and Processing, 2014, 114, 1061-1066.	1.1	4
51	Grain Refinement of Pure Magnesium Using Nonlinear Twist Extrusion. Materials Science Forum, 0, 939, 54-62.	0.3	3
52	Grain boundary sliding in pure and segregated bicrystals: a molecular dynamics and first principles study. Journal of Physics Condensed Matter, 2012, 24, 265703.	0.7	2
53	Softening due to disordered grain boundaries in nanocrystalline Co. Journal of Physics Condensed Matter, 2013, 25, 345702.	0.7	2
54	Improvement of the Mechanical Properties of Magnesium Alloy AZ31 Using Non-linear Twist Extrusion (NTE). Procedia Structural Integrity, 2019, 21, 73-82.	0.3	2

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55	Microstructural Characterization of Mechanically Alloyed FeCoNiMnV High Entropy Alloy Consolidated by Spark Plasma Sintering. Advanced Engineering Materials, 2020, 22, 1901311.	1.6	2
56	Deformation Behavior of Nanocrystalline Co-Cu Alloys. Materials Research Society Symposia Proceedings, 2009, 1224, 1.	0.1	1
57	Atomic simulations of GB sliding in pure and segregated bicrystals. Materials Research Society Symposia Proceedings, 2013, 1515, 1.	0.1	1
58	Molecular dynamics and first-principles study of grain boundary sliding in metals. Transactions of the Materials Research Society of Japan, 2014, 39, 31-34.	0.2	1
59	Nanocrystalline Nickel Dispersed with Hydrolyzed Nano-Size Tungsten Oxide Particles by Electrodeposition. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2015, 80, 109-113.	0.2	1
60	Extraordinary diffusion in Co/Cu grain boundaries. Scripta Materialia, 2015, 101, 52-55.	2.6	0
61	Effect of Thermomechanical Processing on Grain Size, Texture and Mechanical Properties of Pure Magnesium. Materials Science Forum, 0, 985, 97-108.	0.3	0
62	Development of Nanocrystalline Coâ€“Cu Alloys for Energy Applications. Green Energy and Technology, 2010, , 191-194.	0.4	0