Ryo Matsumoto

List of Publications by Year in Descending Order

104 papers	533 citations	13 h-index	18 g-index
107 ext. papers	602 ext. citations	2.1 avg, IF	4.13 L-index

#	Paper	IF	Citations
104	Enhancement of plastic flow in lateral direction by torsional oscillation in upsetting and lateral extrusion. *Journal of Materials Processing Technology*, **2022**, 299, 117369	5.3	1
103	Formation of NiAl Intermetallic Compound from Powder Mixture of Nickel and Aluminum by Laser Irradiation. *Materials Transactions*, **2021**, 62, 512-518	1.3	
102	Strength and electrical conductivity of Cu-Al alloy sheets by cryogenic high-speed rolling. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 799, 139815	5.3	4
101	Surface Quality of Extruded Sidewall in Cold Backward Cup Extrusion with Low-Frequency Torsional Oscillation. *Minerals, Metals and Materials Series*, **2021**, 217-225	0.3	
100	Microstructural evolution of a Ti-6Al-4V alloy produced by forging process combined with torsional motion. *Journal of Manufacturing Processes*, **2020**, 58, 1161-1170	5	1
99	Indentation plastic joining of steel rod and polycarbonate plate. *Journal of Materials Processing Technology*, **2020**, 283, 116719	5.3	1
98	Curling of hot-rolled steel sheet caused by surface oxide scale. *CIRP Annals - Manufacturing Technology*, **2020**, 69, 265-268	4.9	
97	Development of Rotational Incremental Hammering Process for Porous Metals. *Minerals, Metals and Materials Series*, **2020**, 27-35	0.3	
96	Improvement of Forming Limit in Height with Alternating Tool Path in Penetrating Tool Friction Stir Incremental Forming. *Materials Transactions*, **2020**, 61, 1000-1007	1.3	
95	Plastic joining of open-cell nickel foam and polymethyl methacrylate (PMMA) sheet by friction stir incremental forming. *Journal of Materials Processing Technology*, **2020**, 282, 116691	5.3	8
94	Contact resistance between roll and titanium sheet during cold rolling. *CIRP Annals - Manufacturing Technology*, **2019**, 68, 305-308	4.9	2
93	Finite element analysis of shape accuracy of billet cold-forged with stepwise ram motion. *Mechanical Engineering Journal*, **2019**, 6, 18-00523-18-00523	0.5	0
92	Curling of Sheet in Asymmetric Rolling Investigated by Profile Measurement of Partly Rolled Sheet. *ISIJ International*, **2019**, 59, 489-495	1.7	2
91	Reduction in Axial Extrusion Load by Torsional Oscillation in Cold Backward Cup Extrusion. *Journal of the Japan Society for Technology of Plasticity*, **2019**, 60, 235-240	0.3	2
90	Development of Penetrating Tool Friction Stir Incremental Forming. *Materials Transactions*, **2019**, 60, 2416-2425	1.3	1
89	Experimental Study of Roll Flattening in Cold Rolling Process. *ISIJ International*, **2018**, 58, 714-720	1.7	4
88	Formation of skin surface layer on aluminum foam by friction stir powder incremental forming. *International Journal of Advanced Manufacturing Technology*, **2018**, 99, 1853-1861	3.2	7

87	Lubrication in Hot Forging with Pulsed Ram Motion. *Key Engineering Materials*, **2018**, 767, 149-156	0.4	
86	Deformation Twinning and Change in Mechanical Properties of Cu-15at%Al in Multi-Pass Cold Rolling. *Materials Science Forum*, **2018**, 941, 1523-1528	0.4	2
85	Mechanism of oxide scale to decrease friction in hot steel rolling. *Procedia Manufacturing*, **2018**, 15, 46-51	1.5	6
84	Peripheral speed of steel ring during hot ring rolling. *Procedia Manufacturing*, **2018**, 15, 89-96	1.5	1
83	Influence of uneven interface between steel and oxide scale on deformation behavior of oxide scale in hot ring compression. *Procedia Manufacturing*, **2018**, 15, 349-355	1.5	
82	Forming accuracy improvement by double-side incremental forming. *Procedia Manufacturing*, **2018**, 15, 1177-1183	1.5	3
81	Prediction of Deformation Behavior of Metallic Foams Using a Yield Criterion for Compressible Materials. *Materials Transactions*, **2018**, 59, 1892-1897	1.3	2
80	Nano Precipitation and Hardening of Die-Quenched 6061 Aluminum Alloy. *Journal of Nanoscience and Nanotechnology*, **2018**, 18, 2200-2202	1.3	
79	Necking condition of layers in clad sheets during rolling. *CIRP Annals - Manufacturing Technology*, **2018**, 67, 317-320	4.9	4
78	Friction Stir Incremental Forming of Preformed Sheets with Improving Bending Stiffness. *Procedia Engineering*, **2017**, 183, 131-136		2
77	Finite Element Analysis of Plastic Instability Phenomenon in Cold Rolling of Clad Sheets. *Procedia Engineering*, **2017**, 184, 306-312		9
76	Reduction in axial forging load by low-frequency torsional oscillation in cold upsetting. *International Journal of Advanced Manufacturing Technology*, **2017**, 93, 933-943	3.2	10
75	Characterization of surface profile of shot peened cemented tungsten carbide dies with micro valleys and their lubrication performance in cold forging. *Procedia Engineering*, **2017**, 207, 1135-1140		5
74	Development of Friction Stir Incremental Forming Process Using Penetrating Tool. *Procedia Engineering*, **2017**, 207, 789-794		1
73	Improvement of Forming Limit and Accuracy in Friction Stir Incremental Forming with Multistage Forming. *Procedia Engineering*, **2017**, 207, 807-812		5
72	Formation of roll coating in cold rolling of titanium sheets. *Procedia Engineering*, **2017**, 207, 1367-1372		2
71	Deformation and Density Change of Open-Cell Nickel Foam in Compression Test. *Materials Transactions*, **2017**, 58, 1373-1378	1.3	7
70	Mechanism of the Unusual Wetting of a Surface Fine Crevice Structure Created by Laser Irradiation. *Materials Transactions*, **2017**, 58, 1227-1230	1.3	7

69	Enhancement of Forging Limit by Using Servo Press. *Journal of the Japan Society for Technology of Plasticity*, **2017**, 58, 187-191	0.3	2
68	Filling of surface pores of aluminum foam with polyamide by selective laser melting for improvement in mechanical properties. *Journal of Materials Processing Technology*, **2016**, 237, 402-408	5.3	13
67	Wettability of Liquid Bi, In and Sn on Surface Fine Crevice Sructure of Laser-Irradiated Solid Iron Substrate. *Journal of Smart Processing*, **2016**, 5, 153-158	0.2	6
66	Joining of Copper Plates by Unusual Wetting with Liquid Tin and Tin–Lead Solder on Surface Fine Crevice Structure. *Materials Transactions*, **2016**, 57, 973-977	1.3	8
65	Die motion control for die-quench forging process of AA6061 aluminum alloys. *CIRP Annals - Manufacturing Technology*, **2016**, 65, 297-300	4.9	4
64	Thickness increase of skin layer on aluminum foam surface and compressive strength by combination of friction stir incremental forming and incremental hammering. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2016**, 66, 419-425	0.3	1
63	Selective Laser Melting on Aluminum Foam Surface and Mechanical Properties of Fabricated Aluminum Foam with Nonporous Surface Layer. *Key Engineering Materials*, **2015**, 651-653, 671-676	0.4	3
62	Fabrication of skin layer on aluminum foam surface by friction stir incremental forming and its mechanical properties. *Journal of Materials Processing Technology*, **2015**, 218, 23-31	5.3	25
61	Metal-Metal Joining by Unusual Wetting on Surface Fine Crevasse Structure Formed by Laser Treatment. *Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals*, **2015**, 79, 23-28	0.4	
60	Determination of flow stress equation of Al–Mg alloy for sheet metal forming analysis. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2015**, 65, 568-572	0.3	1
59	Metal–Metal Joining by Unusual Wetting on Surface Fine Crevice Structure Formed by Laser Treatment. *Materials Transactions*, **2015**, 56, 1852-1856	1.3	9
58	Characteristics of Surface Profile of Cemented Tungsten Carbide Dies after Shot Peening and Their Lubrication Performance in Cold Ring Compression. *Journal of the Japan Society for Technology of Plasticity*, **2015**, 56, 793-797	0.3	
57	Influence of Oxide Scale Formed on Chrome Steel Surface in Steam Atmosphere on Deformation Behavior of Chrome Steel in Hot Ring Compression. *ISIJ International*, **2015**, 55, 1711-1720	1.7	4
56	728 Friction Stir Incremental Forming of Aluminum Alloy Sheets using Die. *The Proceedings of the Materials and Processing Conference*, **2015**, 2015.23, _728-1_-_728-4_	0	
55	Cold Forging of Commercial AZ31B Magnesium Alloy. *Journal of the Japan Society for Technology of Plasticity*, **2015**, 50, 914-918	0.3	0
54	102 Thickness Increase of Skin Layer on Aluminum Foam Surface by Friction Stir Incremental Forming and Incremental Hammering. *The Proceedings of the Materials and Processing Conference*, **2015**, 2015.23, _102-1_-_102-3_	0	
53	Experimental and numerical analysis of friction in high aspect ratio combined forward-backward extrusion with retreat and advance pulse ram motion on a servo press. *Journal of Materials Processing Technology*, **2014**, 214, 936-944	5.3	21
52	Reduction of friction of steel covered with oxide scale in hot forging. *Journal of Materials Processing Technology*, **2014**, 214, 651-659	5.3	21

51	Filling of Surface Pores on Aluminum Foam with Aluminum Powder by Selective Laser Melting. *Key Engineering Materials*, **2014**, 622-623, 861-867	0.4	3
50	Identification of Friction Coefficient in High Aspect Ratio Combined Forward-backward Extrusion with Pulse Ram Motion on Servo Press. *Procedia Engineering*, **2014**, 81, 1854-1859		4
49	Flattening of Surface Grooves in Cold Flat Rolling. *Procedia Engineering*, **2014**, 81, 155-160		2
48	Deformation Processes of Porous Metals and Metallic Foams (Review) **2014**, 4, 245-249		18
47	Formation mechanism of surface scale defects in hot rolling process. *CIRP Annals - Manufacturing Technology*, **2014**, 63, 261-264	4.9	22
46	Two-Step Die Motion for Die Quenching of AA2024 Aluminum Alloy Billet on Servo Press. *Materials Transactions*, **2014**, 55, 818-826	1.3	2
45	Residual Stress Distribution through Thickness in Cold-Rolled Aluminum Sheet. *Key Engineering Materials*, **2014**, 622-623, 1000-1007	0.4	8
44	Friction in Hot Forging of Chrome Steel Covered with Oxide Scale Film Generated at Steam Atmosphere. *Key Engineering Materials*, **2014**, 622-623, 194-200	0.4	1
43	Morphology of Edge Cracks of Rolled Magnesium Alloy Sheet. *Advanced Materials Research*, **2014**, 922, 469-474	0.5	6
42	Punch Wear in the Forming of Deep Holes with Pulse Ram Motion on a Servo Press. *Key Engineering Materials*, **2014**, 611-612, 127-133	0.4	3
41	Microstructure of Oxide Scale on Hot-Rolled Iron. *Advanced Materials Research*, **2014**, 922, 242-247	0.5	1
40	Feasibility Study on Die Quenching of AA2024 Aluminum Alloy Billet Using Servo Press. *Advanced Materials Research*, **2014**, 922, 286-291	0.5	3
39	Microstructural Evolution of AA5052 Alloy Sheets in High-Speed Rolling. *Advanced Materials Research*, **2014**, 922, 344-349	0.5	
38	Die quenching limit of AA2024 aluminum alloy billet on servo press. *Journal of Materials Processing Technology*, **2014**, 214, 2514-2521	5.3	7
37	Influence of the press ram motion on the joining characteristics during indentation plastic joining using a servo press. *Journal of Materials Processing Technology*, **2014**, 214, 1995-2001	5.3	7
36	J0320402 Fabrication of Nonporous Layer on Surface of Aluminum Foam by Selective Laser Melting. *The Proceedings of Mechanical Engineering Congress Japan*, **2014**, 2014, _J0320402--_J0320402-	0	
35	Indentation Joining with Oscillation Using Servo Press. *Yosetsu Gakkai Shi/Journal of the Japan Welding Society*, **2014**, 83, 195-198	0.1	
34	Advanced Materials Design with Forming **2013**, 3-14		

33	Lubrication using porous surface layer for cold drawing of steel wire. *CIRP Annals - Manufacturing Technology*, **2013**, 62, 235-238	4.9	2
32	Forging induces changes in the formability and microstructure of extruded Mg96Zn2Y2 alloy with a long-period stacking order phase. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 563, 21-27	5.3	14
31	Shape accuracy in the forming of deep holes with retreat and advance pulse ram motion on a servo press. *Journal of Materials Processing Technology*, **2013**, 213, 770-778	5.3	30
30	Cold Piercing of Cylindrical Aluminum Billet with Counter Punch Pressure. *Key Engineering Materials* , **2013**, 554-557, 613-619	0.4	3
29	Beyond metal forming limit of aluminum alloys. *Keikinzoku/Journal of Japan Institute of Light Metals* , **2013**, 63, 329-336	0.3	1
28	Influence of Thermal Conductivity of Die Material on Hot Forging Characteristics. *Journal of the Japan Society for Technology of Plasticity*, **2013**, 54, 363-367	0.3	1
27	Dry and Semi-Dry Forging. *Journal of the Japan Society for Technology of Plasticity*, **2013**, 54, 210-214	0.3	
26	G041021 Mechanical Properties of Aluminum Foam with Nonporous Surface Layer Formed by Friction Stir Incremental Forming. *The Proceedings of Mechanical Engineering Congress Japan*, **2013**, 2013, _G041021-1-_G041021-3	0	
25	Application of mixture rule to finite element analysis for forging of cast Mg□Zn□ alloys with long period stacking ordered structure. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 548, 75-82	5.3	17
24	Evaluation ofr-value of steels using Vickers hardness test. *Journal of Physics: Conference Series*, **2012**, 379, 012045	0.3	0
23	Coating of Ti64 Bearings in Air by Using a Q-Sw Laser. *Applied Mechanics and Materials*, **2012**, 152-154, 1239-1243	0.3	1
22	Cold Backward Extrusion of Titanium Billet with Pulsating Lubricant Supply on Servo Press. *Key Engineering Materials*, **2012**, 504-506, 381-386	0.4	9
21	Comparison between the RCF Performance of TiN- and TiO2-Laser Coated Ti64 Bearings. *Advanced Materials Research*, **2012**, 566, 308-312	0.5	
20	926 Dimensional Accuracy of Formed Hole in Forming using Punch with Internal Channel for Lubricant on Servo Press. *The Proceedings of the Materials and Processing Conference*, **2012**, 2012.20, _926-1_-_926-4_	0	
19	315 Fabrication of Solid Skin on ALPORAS by Friction Stir Incremental Forming. *The Proceedings of the Materials and Processing Conference*, **2012**, 2012.20, _315-1_-_315-4_	0	
18	Wear Resistance Improvement of Titanium Bearings by Laser Gas Nitriding. *Advanced Materials Research*, **2011**, 418-420, 1629-1634	0.5	7
17	Rolling Contact Fatigue of Titanium Alloys Coated by Gas Nitriding Using a Q-Sw Laser. *Applied Mechanics and Materials*, **2011**, 83, 191-196	0.3	
16	Coating of Ti64 Bearings in Air by Using a Q-Sw Laser. *Advanced Materials Research*, **2011**, 418-420, 393-397	0.3	

15	Ductility improvement methods for commercial AZ31B magnesium alloy in cold forging. *Transactions of Nonferrous Metals Society of China*, **2010**, 20, 1275-1281	3.3	12
14	Ductility of a magnesium alloy in warm forging with controlled forming speed using a CNC servo press. *Journal of Materials Processing Technology*, **2010**, 210, 2029-2035	5.3	12
13	Fabrication of aluminium foams from powder by hot extrusion and foaming. *Journal of Materials Processing Technology*, **2010**, 210, 1203-1208	5.3	34
12	Development of Plastic Flow Joining Method Using Indentation of Aluminum Bar to Aluminum Plate. *Journal of Solid Mechanics and Materials Engineering*, **2009**, 3, 1223-1232		1
11	Forgeability and Flow Stress of Mg-Zn-Y Alloys with Long Period Stacking Ordered Structure at Elevated Temperatures. *Materials Transactions*, **2009**, 50, 841-846	1.3	24
10	Indentation Joining Process for Steel Bar ^|^ndash; Aluminium Plate. *Journal of the Japan Society for Technology of Plasticity*, **2009**, 50, 550-554	0.3	2
9	Improvement of Forgeability of a Commercial AZ31B Magnesium Alloy in Cold Backward Extrusion with Counter Pressure. *Materials Transactions*, **2008**, 49, 1000-1005	1.3	6
8	Effect of heat treatment on forgeability of AZ31 magnesium alloy. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2007**, 57, 274-279	0.3	3
7	Friction and Adhesion in Dry Warm Forging of Magnesium Alloy with Coated Tools. *Journal of Solid Mechanics and Materials Engineering*, **2007**, 1, 397-405		5
6	Cold piercing of magnesium alloy billet with high aspect ratio. *International Journal of Machine Tools and Manufacture*, **2006**, 46, 459-466	9.4	13
5	C-10 FRICTION AND ADHESION IN DRY WARM FORGING OF MAGNESIUM ALLOY WITH COATED TOOLS(Session: Forming II). *The Proceedings of the Asian Symposium on Materials and Processing*, **2006**, 2006, 57		
4	Development of Warm Forging Method for Magnesium Alloy. *Materials Transactions*, **2004**, 45, 2838-2844	1.3	25
3	Measurement of Friction in Cold Upsetting with Mist Lubrication. *Materials Transactions*, **2004**, 45, 2891-2896	1.3	6
2	Temperature Increase during Isothermal Forging of Ti-5Al-2Sn-2Zr-4Cr-4Mo Alloy Using a 1500-Ton Forging Press. *Materials Science Forum*,1016, 702-707	0.4	
1	Friction Stir Powder Incremental Forming for Fabrication of Sandwich-Structured Composite of Open-Cell Nickel Foam with Aluminum. *Defect and Diffusion Forum*,414, 179-184	0.7	