Ichinori Shigematsu

List of Publications by Year
in descending order

89 papers	2,577 citations	218381 26 h-index	197535 49 g-index
89 all docs	89 docs citations	89 times ranked	1657 citing authors

#	Article	IF	Citations
1	Variable temperature solid-state NMR spectral and relaxation analyses of the impregnation of polyethylene glycol (PEG) into coniferous wood. RSC Advances, 2019, 9, 15657-15667.	1.7	11
2	Large deformability derived from a cellâ€“cell slip mechanism in intercellular regions of solid wood. Acta Mechanica, 2017, 228, 2751-2758.	1.1	4
3	Repetitive flow forming of wood impregnated with thermoplastic binder. International Journal of Material Forming, 2017, 10, 435-441.	0.9	3
4	Forward extrusion of bulk wood containing polymethylmethacrylate: Effect of polymer content and die angle on the flow characteristics. Journal of Materials Processing Technology, 2017, 239, 140-146.	3.1	5
5	Extrudability of Solid Wood by Acetylation and In-Situ Polymerisation of Methyl Methacrylate. BioResources, 2016, 11, .	0.5	7
6	Extrusion of Solid Wood Impregnated with Phenol Formaldehyde (PF) Resin: Effect of Resin Content and Moisture Content on Extrudability and Mechanical Properties of Extrudate. BioResources, 2016, 11, .	0.5	8
7	Friction characteristics between metal tool and wood impregnated with phenol formaldehyde (PF) resin during exposure to high pressure. Journal of Wood Science, 2016, 62, 233-241.	0.9	4
8	Solute diffusion into cell walls in solution-impregnated wood under conditioning process II: effect of solution concentration on solute diffusion. Journal of Wood Science, 2016, 62, 146-155.	0.9	8
9	Solute diffusion into cell walls in solution-impregnated wood under conditioning process I: effect of relative humidity on solute diffusivity. Journal of Wood Science, 2015, 61, 543-551.	0.9	14
10	Extrusion Properties of a Solid Wood Impregnated with Acrylic Resin: Effects of Die-angle on Extrusion Force. Zairyo/Journal of the Society of Materials Science, Japan, 2015, 64, 375-380.	0.1	1
11	Mechanism Verification of Solute Diffusion into Cell Walls in Solution Impregnated Wood under Conditioning Process: Effect of Relative Humidity on Swelling and Shrinkage Behavior of Wood Impregnated with an Aqueous Solution of Polyethylene Glycol. Zairyo/Journal of the Society of Materials Science, Japan, 2015, 64, 369-374.	0.1	6
12	Anomalous thermal expansion behaviors of wood under dry and low-temperature conditions. Holzforschung, 2014, 68, 567-574.	0.9	3
13	Effect of Thermoplastic Binder on Flow Deformation Behavior of Wood. Procedia Engineering, 2014, 81, 855-860.	1.2	5
14	Preparation of Wood Plastic Composite Sheets by Lateral Extrusion of Solid Woods Using their Fluidity. Procedia Engineering, 2014, 81, 580-585.	1.2	7
15	Study of nanoscale structural changes in isolated bamboo constituents using multiscale instrumental analyses. Journal of Applied Polymer Science, 2014, 131, .	1.3	27
16	Superplastic deformation of solid wood by slipping cells at sub-micrometer intercellular layers. International Journal of Nanotechnology, 2014, 11, 509.	0.1	11
17	Corrosion resistance of multilayered magnesium phosphate/magnesium hydroxide film formed on magnesium alloy using steam-curing assisted chemical conversion method. Electrochimica Acta, 2012, 62, 19-29.	2.6	42
18	Magnesium hydroxide/magnesium phosphate compounds composite coating for corrosion protection of magnesium alloy by a combination process of chemical conversion and steam curing. Materials Letters, 2012, 68, 122-125.	1.3	25

#	Article	IF	Citations
19	Development of New Production Technology for Foam Metal Core Sandwich Panel Using Friction Phenomena. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2010, 74, 662-667.	0.2	0
20	Influences of Rolling Conditions on Texture and Formability of Magnesium Alloy Sheets. Materials Science Forum, 2010, 638-642, 1536-1540.	0.3	3
21	Rotary-Die Equal Channel Angular Pressing Method for Light Metals. Materials Science Forum, 2010, 638-642, 1614-1617.	0.3	0
22	Texture and Formability of Heat-treatable Magnesium Alloy Sheets Processed by Differential Speed Rolling. Transactions of the Materials Research Society of Japan, 2009, 34, 785-788.	0.2	2
23	Effects of thickness reduction per pass on microstructure and texture of Mgâ€“3Alâ€“1Zn alloy sheet processed by differential speed rolling. Scripta Materialia, 2009, 60, 964-967.	2.6	77
24	Improving both strength and ductility of a Mg alloy through a large number of ECAP passes. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 513-514, 122-127.	2.6	126
25	Anticorrosive magnesium phosphate coating on AZ31 magnesium alloy. Surface and Coatings Technology, 2009, 203, 2288-2291.	2.2	90
26	Improvement of formability of Mgâ€“Alâ€“Zn alloy sheet at low temperatures using differential speed rolling. Journal of Alloys and Compounds, 2009, 470, 263-268.	2.8	187
27	Microstructural and textural evolution of AZ31 magnesium alloy during differential speed rolling. Journal of Alloys and Compounds, 2009, 479, 726-731.	2.8	61
28	Surface Modification of Porous Metals Using Friction Phenomena. Materials Transactions, 2009, 50, 192-196.	0.4	3
29	Friction Stir Welding for Tailor-Welded Blanks between Aluminum and Magnesium Alloys. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2009, 73, 407-413.	0.2	0
30	Surface Modification of Aluminum Foams Using Friction Phenomena. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2009, 73, 527-532.	0.2	0
31	Development of New Production Technology for Metallic Foam Core Sandwich Panel Using Friction Phenomena. Materials Transactions, 2009, 50, 879-884.	0.4	3
32	Dissimilar Friction Stir Welding for Tailor-Welded Blanks of Aluminum and Magnesium Alloys. Materials Transactions, 2009, 50, 197-203.	0.4	39
33	Mechanical properties of Mgâ€“Alâ€“Zn alloy with a tilted basal texture obtained by differential speed rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 488, 214-220.	2.6	173
34	Dissimilar friction stir welding between magnesium and aluminum alloys. Materials Letters, 2008, 62, 3827-3829.	1.3	186
35	A novel surface modification process for porous metals using friction phenomena. Materials Letters, 2008, 62, 4458-4460.	1.3	7
36	Microstructure and texture of Mgâ€“Alâ€“Zn alloy processed by differential speed rolling. Journal of Alloys and Compounds, 2008, 457, 408-412.	2.8	106

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37	Effects of manganese addition on microstructure and press formability of hot-rolled Mgâ€“Alâ€“Zn alloy sheets. Journal of Materials Research, 2008, 23, 3029-3039.	1.2	15
38	Superplasticity in Mgâ€“Liâ€“Zn Alloys Processed by High Ratio Extrusion. Materials and Manufacturing Processes, 2008, 23, 336-341.	2.7	26
39	Noncombustible Magnesium Alloy Processed by Rotary-Die Equal Channel Angular Pressing Method. Materials Science Forum, 2007, 544-545, 419-422.	0.3	1
40	Mechanical Properties and Formability of AZ31 Magnesium Alloy Processed by Differential Speed Rolling. Materials Science Forum, 2007, 544-545, 395-398.	0.3	1
41	Effects of Manganese on Microstructure and Mechanical Properties of AZ31 Magnesium Alloy Processed by Differential Speed Rolling. Materials Science Forum, 2007, 544-545, 283-286.	0.3	2
42	Effects of Homogenization Treatment on Mechanical Properties of Hot-Rolled AZ31 Magnesium Alloy. Materials Science Forum, 2007, 561-565, 255-258.	0.3	1
43	Effects of Differential Speed Rolling on Microstructure and Mechanical Properties of AZ31 Magnesium Alloy. Materials Science Forum, 2007, 539-543, 1759-1763.	0.3	2
44	Influences of Rolling Conditions on Texture and Mechanical Properties of AZ31 Magnesium Alloy Processed by Differential Speed Rolling. Materials Science Forum, 2007, 561-565, 287-290.	0.3	0
45	Superplasticity of Fine-Grained 20VOL%SiC Whiskers Reinforced 2024 Aluminum Alloy Produced by ECAP with a Rotary Die. Materials Science Forum, 2007, 539-543, 2934-2939.	0.3	0
46	Deformation mechanism at impact test of Al-11% Si alloy processed by equal-channel angular pressing with rotary die. Transactions of Nonferrous Metals Society of China, 2007, 17, 104-109.	1.7	10
47	Severe Plastic Deformation of Commercially Pure Titanium by Rotary-Die Equal Channel Angular Pressing Method. Materials Science Forum, 2006, 503-504, 717-720.	0.3	0
48	Commercial Purity Titanium Processed by Rotary-Die Equal Channel Angular Pressing Method. Materials Transactions, 2005, 46, 2098-2101.	0.4	9
49	Effect of severe plastic deformation on tensile properties of a cast Alâ€“11mass% Si alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 395, 70-76.	2.6	56
50	Impact toughness of an ingot hypereutectic Alâ€“23mass% Si alloy improved by rotary-die equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 399, 181-189.	2.6	67
51	Tensile properties of an Alâ€“11mass%Si alloy at elevated temperatures processed by rotary-die equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 408, 147-153.	2.6	40
52	Impact toughness of an ultrafine-grained Alâ€“11mass%Si alloy processed by rotary-die equal-channel angular pressing. Acta Materialia, 2005, 53, 211-220.	3.8	127
53	Characteristics of plastic deformation by rotary-die equal-channel angular pressing. Scripta Materialia, 2005, 52, 433-437.	2.6	80
54	Friction stir welding of recycled A6061 aluminum plates fabricated by hot-extrusion of machined chips. Journal of Materials Science, 2005, 40, 2971-2974.	1.7	9

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55	Mechanical Properties of Low Young's Modulus Amorphous Carbon Reinforced Aluminum Composites. Materials Science Forum, 2005, 502, 201-204.	0.3	2
56	High strain rate superplasticity of TiC particulate reinforced 2014 aluminum alloy composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 364, 281-286.	2.6	25
57	Mechanical Property Improvements in Aluminum Alloy through Grain Refinement using Friction Stir Process. Materials Transactions, 2004, 45, 2304-2311.	0.4	12
58	Effect of Heat Treatment on Impact Toughness of Aluminum Silicon Eutectic Alloy Processed by Rotary-Die Equal-Channel Angular Pressing. Materials Transactions, 2004, 45, 399-402.	0.4	13
59	Title is missing!. Journal of Materials Science Letters, 2003, 22, 175-177.	0.5	3
60	Joining of 5083 and 6061 aluminum alloys by friction stir welding. Journal of Materials Science Letters, 2003, 22, 353-356.	0.5	153
61	Mechanical properties of fine-grained aluminum alloy produced by friction stir process. Scripta Materialia, 2003, 49, 785-789.	2.6	136
62	Superplasticity of nitride mullite short fiber-reinforced 6061 aluminum composites. Scripta Materialia, 2003, 49, 1061-1066.	2.6	8
63	Superplasticity of Fine-Grained AZ 91 Alloy Processed by Rotary-Die Equal-Channel Angular Pressing. Materials Science Forum, 2003, 426-432, 2735-2740.	0.3	2
64	Movement of alloying elements in Mg -8.5 wt-%Li and AZ91 alloys during tensile tests for superplasticity. Materials Science and Technology, 2003, 19, 1642-1647.	0.8	36
65	Production of Ultra-Fine Grained Aluminum Alloy using Friction Stir Process. Materials Transactions, 2003, 44, 1343-1350.	0.4	50
66	Mechanical and corrosion properties of 6061 aluminum alloys recycled by hot-extrusion of cutting chips. Keikinzoku/Journal of Japan Institute of Light Metals, 2003, 53, 554-560.	0.1	6
67	Grain Refinement and Mechanical Property Improvements in Aluminum Alloys using the Friction Stir Process. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2003, 67, 547-554.	0.2	8
68	Production of Ultra-Fine Grained Aluminum Alloy by Friction Stir Process. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2002, 66, 1325-1332.	0.2	13
69	Billet temperature rise during equal-channel angular pressing. Scripta Materialia, 2002, 46, 211-216.	2.6	27
70	Friction stir process as a new manufacturing technique of ultrafine grained aluminum alloy. Journal of Materials Science Letters, 2002, 21, 1473-1476.	0.5	95
71	Application of equal channel angular extrusion on strengthening of ferritic stainless steel. Journal of Materials Science, 2001, 36, 3229-3232.	1.7	10
72	Grain refinement of 1050 aluminum alloy by friction stir processing. Journal of Materials Science Letters, 2001, 20, 1913-1915.	0.5	63

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73	Surface hardening treatments of pure titanium by carbon dioxide laser. Journal of Materials Science Letters, 2000, 19, 967-970.	0.5	9
74	Surface treatment of AZ91D magnesium alloy by aluminum diffusion coating. Journal of Materials Science Letters, 2000, 19, 473-475.	0.5	96
75	Title is missing!. Journal of Materials Science Letters, 2000, 19, 2091-2093.	0.5	3
76	Analysis of Constituents Generated With Laser Machining of Si3N4 and SiC. Journal of Materials Science Letters, 1998, 17, 737-739.	0.5	38
77	Joining of Si-Ti-C-O Fiber Reinforced Ceramic Composite and Fe-Cr-Ni Stainless Steel. Key Engineering Materials, 1998, 164-165, 435-438.	0.4	2
78	Joining of a Si-Ti-C-O Fiber-Bonded Ceramic and an Fe-Cr-Ni Stainless Steel with a Ag-Cu-Ti Brazing Alloy. Journal of the Ceramic Society of Japan, 1998, 106, 927-930.	1.3	2
79	Deflection of a Main Crack along a Weak Plane Consisting of a Group of Preexisting Cracks in a Silicon Nitride Ceramic. Journal of the Ceramic Society of Japan, 1997, 105, 1047-1049.	1.3	0
80	Microstructure of joining interfaces of Si3N4 ceramics formed by diffusion joining. Journal of Materials Science Letters, 1997, 16, 1654-1655.	0.5	1
81	Diffusion joining of Si3N4 ceramics by hot pressing under high nitrogen gas pressure. Journal of Materials Science Letters, 1997, 16, 1030-1032.	0.5	3
82	Joining of Si-Ti-C-O fibre-assembled ceramic composites with 72Ag-26Cu-2Ti filler metal. Journal of Materials Science, 1996, 31, 6099-6104.	1.7	5
83	Joining of carbon fibre-reinforced silicon nitride composites with 72Ag-26Cu-2Ti filler metal. Journal of Materials Science, 1996, 31, 4629-4634.	1.7	4
84	Joining of Si3N4 ceramics with nickel and Ni-Cr alloy laminated interlayers. Journal of Materials Science Letters, 1993, 12, 716-718.	0.5	6
85	Surface damage in ZrB2-based composite ceramics induced by electro-discharge machining. Journal of Materials Science, 1991, 26, 6078-6082.	1.7	26
86	Effect of Friction Stir Welding Condition on Fatigue Limit of Welded Non-Combustible Mg Alloy. Key Engineering Materials, 0, 488-489, 311-314.	0.4	0
87	Grain Refinement of Mg-Al-Zn Alloy Bar during Hot Compression. Materials Science Forum, 0, 706-709, 1267-1272.	0.3	2
88	Preparation of Three Dimensional Products Using Flow Deformability of Wood Treated by Small Molecular Resins. Advanced Materials Research, 0, 856, 79-86.	0.3	16
89	Flow Behavior of Wood Treated with Melamine Formaldehyde Resin under Non-Equilibrium Thermal-Compression. Advanced Materials Research, 0, 1119, 278-282.	0.3	2