Hiroshi Utsunomiya

List of Publications by Year
in descending order

		623734	526287
75	877	14	27
papers	citations	h-index	g-index

76	76	76	589
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enhancement of plastic flow in lateral direction by torsional oscillation in upsetting and lateral extrusion. Journal of Materials Processing Technology, 2022, 299, 117369.	6.3	4
2	In situ observation of the interface between a roll and a sheet in flat rolling process. CIRP Annals - Manufacturing Technology, 2022, 71, 245-248.	3.6	3
3	Development of On-line Model of Forward Slip on Tandem Cold Strip Mill. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2021, 107, 732-740.	0.4	3
4	Forming of thin-walled cylindrical cup by impact backward extrusion of Al-Si alloys processed by semi-solid cast and ECAP. Journal of Materials Processing Technology, 2021, 297, 117277.	6.3	3
5	Curling of hot-rolled steel sheet caused by surface oxide scale. CIRP Annals - Manufacturing Technology, 2020, 69, 265-268.	3.6	0
6	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.	6.3	13
7	Sticking in Hot Rolled Sheet of Ferritic Stainless Steel. ISIJ International, 2020, 60, 1732-1736.	1.4	0
8	Effects of back-up rolls on lubrication in cold rolling of aluminum alloy. Keikinzoku/Journal of Japan Institute of Light Metals, 2019, 69, 120-124.	0.4	0
9	Contact resistance between roll and titanium sheet during cold rolling. CIRP Annals - Manufacturing Technology, 2019, 68, 305-308.	3.6	2
10	Effects of segment-structured DLC film on the fretting wear of railway axle journal bearings. Mechanical Engineering Journal, 2019, 6, 18-00446-18-00446.	0.4	4
11	Fabrication of a thin open-cell Ni foam sheet with a high specific strength and moderate porosity using severe plastic deformation via differential speed rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 750, 7-13.	5.6	4
12	Curling of Sheet in Asymmetric Rolling Investigated by Profile Measurement of Partly Rolled Sheet. ISIJ International, 2019, 59, 489-495.	1.4	2
13	Preventive measures of fretting wear in contact surfaces of inner ring and backing ring of railway axle journal bearings (Combined effect of grooving and segmentâ€structured DLC coating towards) Tj ETQq1 1 0.784314 rgBT /Overlo	0.4	
14	Sticking in Hot Rolled Sheet of Ferritic Stainless Steel. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2018, 104, 640-645.	0.4	0
15	Mechanism of oxide scale to decrease friction in hot steel rolling. Procedia Manufacturing, 2018, 15, 46-51.	1.9	9
16	Peripheral speed of steel ring during hot ring rolling. Procedia Manufacturing, 2018, 15, 89-96.	1.9	5
17	Prediction of Deformation Behavior of Metallic Foams Using a Yield Criterion for Compressible Materials. Materials Transactions, 2018, 59, 1892-1897.	1.2	2
18	Nano Precipitation and Hardening of Die-Quenched 6061 Aluminum Alloy. Journal of Nanoscience and Nanotechnology, 2018, 18, 2200-2202.	0.9	0

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19	Necking condition of layers in clad sheets during rolling. CIRP Annals - Manufacturing Technology, 2018, 67, 317-320.	3.6	6
20	Suppression Effect of Fretting Wear in Railway Axle Journal Bearings by Means of Hard-film Coatings. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2018, 104, 303-311.	0.4	5
21	Experimental Study of Roll Flattening in Cold Rolling Process. ISIJ International, 2018, 58, 714-720.	1.4	7
22	Formation of skin surface layer on aluminum foam by friction stir powder incremental forming. International Journal of Advanced Manufacturing Technology, 2018, 99, 1853-1861.	3.0	7
23	Prediction of Flow Stress Curve of Metallic Foam using Compressible Constitutive Equation. Journal of Physics: Conference Series, 2018, 1063, 012159.	0.4	0
24	Finite Element Analysis of Plastic Instability Phenomenon in Cold Rolling of Clad Sheets. Procedia Engineering, 2017, 184, 306-312.	1.2	12
25	Reduction in axial forging load by low-frequency torsional oscillation in cold upsetting. International Journal of Advanced Manufacturing Technology, 2017, 93, 933-943.	3.0	17
26	Improvement in formability of semi-solid cast hypoeutectic Al-Si alloys by equal-channel angular pressing. Journal of Materials Processing Technology, 2017, 240, 240-248.	6.3	48
27	Formation of roll coating in cold rolling of titanium sheets. Procedia Engineering, 2017, 207, 1367-1372.	1.2	2
28	Deformation and Density Change of Open-Cell Nickel Foam in Compression Test. Materials Transactions, 2017, 58, 1373-1378.	1.2	9
29	Mechanism of the Unusual Wetting of a Surface Fine Crevice Structure Created by Laser Irradiation. Materials Transactions, 2017, 58, 1227-1230.	1.2	8
30	Joining of Copper Plates by Unusual Wetting with Liquid Tin and Tinâ€“Lead Solder on â€œSurface Fine Crevice Structureâ€• Materials Transactions, 2016, 57, 973-977.	1.2	9
31	Die motion control for die-quench forging process of AA6061 aluminum alloys. CIRP Annals - Manufacturing Technology, 2016, 65, 297-300.	3.6	4
32	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.	0.4	1
33	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.	6.3	17
34	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.	0.1	6
35	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	1
36	Determination of flow stress equation of Alâ€“Mg alloy for sheet metal forming analysis. Keikinzoku/Journal of Japan Institute of Light Metals, 2015, 65, 568-572.	0.4	2

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37	Metal–Metal Joining by Unusual Wetting on Surface Fine Crevice Structure Formed by Laser Treatment. Materials Transactions, 2015, 56, 1852-1856.	1.2	13
38	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.	1.4	6
39	High-Speed Rolling of AZ31 Magnesium Alloy Having Different Initial Textures. Journal of Materials Engineering and Performance, 2015, 24, 972-985.	2.5	8
40	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.	6.3	31
41	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.	6.3	7
42	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.	6.3	24
43	Reduction of friction of steel covered with oxide scale in hot forging. Journal of Materials Processing Technology, 2014, 214, 651-659.	6.3	24
44	Flattening of Surface Grooves in Cold Flat Rolling. Procedia Engineering, 2014, 81, 155-160.	1.2	2
45	Fabrication of Nonporous Layer on Surface of ALPORAS by Friction Stir Incremental Forming. , 2014, 4, 239-243.		3
46	Deformation Processes of Porous Metals and Metallic Foams (Review). , 2014, 4, 245-249.		20
47	Formation mechanism of surface scale defects in hot rolling process. CIRP Annals - Manufacturing Technology, 2014, 63, 261-264.	3.6	29
48	Two-Step Die Motion for Die Quenching of AA2024 Aluminum Alloy Billet on Servo Press. Materials Transactions, 2014, 55, 818-826.	1.2	3
49	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.	6.3	35
50	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.	0.0	0
51	Effects of Porous Surface Layer on Lubrication Evaluated by Ring Compression Friction Test. ISIJ International, 2012, 52, 858-862.	1.4	10
52	Erratum to ^|^ldquo;Effects of Porous Surface Layer on Lubrication Evaluated by Ring Compression Friction Test^|^rdquo;[ISIJ Int. 52(5): 858^|^ndash;862 (2012)]. ISIJ International, 2012, 52, 1171.	1.4	0
53	Oxide Scale Behavior and Rolling Characteristics in Hot Steel Rolling. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2011, 97, 393-398.	0.4	4
54	Nano-Porous Layer on Steel Surface as Lubricant Carrier. Journal of Nanoscience and Nanotechnology, 2011, 11, 1750-1753.	0.9	2

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55	Investigation of Scale Behaviour during Hot Steel Rolling by Oxide Glass. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2010, 96, 492-497.	0.4	5
56	Deformation of Lotus-Type Porous Copper in Rolling. Materials Science Forum, 2010, 658, 328-331.	0.3	2
57	Deformation Behavior of Inner Grooved Ring in Cold Roll Forming. Journal of the Japan Society for Technology of Plasticity, 2009, 50, 349-353.	0.3	3
58	Deformation of oxide scale on steel surface during hot rolling. CIRP Annals - Manufacturing Technology, 2009, 58, 271-274.	3.6	38
59	Deformation mechanism and texture and microstructure evolution during high-speed rolling of AZ31B Mg sheets. Journal of Materials Science, 2008, 43, 7148-7156.	3.7	158
60	Deformation and Texture Evolution during High-Speed Rolling of AZ31 Magnesium Sheets. Materials Transactions, 2007, 48, 2023-2027.	1.2	53
61	Application of hydrostatic integration parameter for free-forging and rolling. Journal of Materials Processing Technology, 2006, 177, 521-524.	6.3	80
62	Ultra Grain Refinement of Commercial Purity Aluminum by a Multi-Stack ARB Process. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2002, 66, 470-475.	0.4	4
63	Novel Method to Spread the Width of Strip.. ISIJ International, 2002, 42, 1000-1004.	1.4	3
64	Change in Microstructure and Mechanical Properties of Ultra-Fine Grained Aluminum during Annealing. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2000, 64, 429-437.	0.4	51
65	Development of Aus-drawing Process in Medium Carbon Spring Steel for Coil Springs. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1999, 85, 411-418.	0.4	5
66	Accumulative Roll-Bonding of 1100 Aluminum. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1999, 63, 790-795.	0.4	22
67	Development of Controlled Tapered Rolling Method for Manufacturing Tapered Leaf Spring. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1999, 85, 671-677.	0.4	3
68	Influence of Rolling Parameters on Satellite-mill Rolling Characteristics of U- and H-shaped Wires. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1999, 85, 678-683.	0.4	0
69	Rolling of U-shaped and H-shaped Wires by the Satellite Mill. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1998, 84, 273-278.	0.4	1
70	Rolling of Flat and T-shaped Profiled Wires by the Satellite Mill. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1997, 83, 431-436.	0.4	1
71	Influence of Spread Rolling on Textures of Aluminum and Aluminum Alloy Strips. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1995, 59, 191-197.	0.4	4
72	Influence of Spread Rolling on Properties of Bismuth Based Oxide Superconducting Tapes Sheathed in Silver. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1994, 58, 691-696.	0.4	2

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73	Feasibility Study on Die Quenching of AA2024 Aluminum Alloy Billet Using Servo Press. Advanced Materials Research, 0, 922, 286-291.	0.3	3
74	Texture of Magnesium Alloy Sheets Heavily Rolled by High Speed Warm Rolling. Ceramic Transactions, 0, , 601-608.	0.1	1
75	Texture and Microstructure Control of Cu and Cu-Zn Alloy by Differential Speed Rolling. , 0, , 44-49.		0