Mitsutoshi Kuroda

List of Publications by Year
in descending order

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73	2,355	218381	205818
papers	citations	26 h-index	48 g-index

75	75	75	1271
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Crystal plasticity analysis of texture development in magnesium alloy during extrusion. International Journal of Plasticity, 2011, 27, 1916-1935.	4.1	193
2	Forming limit diagrams for anisotropic metal sheets with different yield criteria. International Journal of Solids and Structures, 2000, 37, 5037-5059.	1.3	144
3	Path-dependence of the forming limit stresses in a sheet metal. International Journal of Plasticity, 2007, 23, 361-384.	4.1	144
4	On the formulations of higher-order strain gradient crystal plasticity models. Journal of the Mechanics and Physics of Solids, 2008, 56, 1591-1608.	2.3	137
5	Effects of texture on shear band formation in plane strain tension/compression and bending. International Journal of Plasticity, 2007, 23, 244-272.	4.1	136
6	The effects of texture on formability of aluminum alloy sheets. Acta Materialia, 2007, 55, 4499-4506.	3.8	125
7	Effect of strain path change on limits to ductility of anisotropic metal sheets. International Journal of Mechanical Sciences, 2000, 42, 867-887.	3.6	97
8	A phenomenological plasticity model with non-normality effects representing observations in crystal plasticity. Journal of the Mechanics and Physics of Solids, 2001, 49, 1239-1263.	2.3	93
9	Studies of scale dependent crystal viscoplasticity models. Journal of the Mechanics and Physics of Solids, 2006, 54, 1789-1810.	2.3	87
10	A finite deformation theory of higher-order gradient crystal plasticity. Journal of the Mechanics and Physics of Solids, 2008, 56, 2573-2584.	2.3	76
11	Use of abrupt strain path change for determining subsequent yield surface: illustrations of basic idea. Acta Materialia, 1999, 47, 3879-3890.	3.8	72
12	Influence of twinning deformation and lattice rotation on strength differential effect in polycrystalline pure magnesium with rolling texture. Computational Materials Science, 2009, 47, 448-455.	1.4	65
13	Quantitative evaluations for strain amplitude dependent organization of dislocation structures due to cyclic plasticity in austenitic stainless steel 316L. Acta Materialia, 2008, 56, 2735-2743.	3.8	60
14	Grain size effects in aluminum processed by severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 710, 300-308.	2.6	58
15	Solid-state recycling of aluminium alloy swarf through cold profile extrusion and cold rolling. Journal of Materials Processing Technology, 2011, 211, 1878-1887.	3.1	53
16	An alternative treatment of phenomenological higher-order strain-gradient plasticity theory. International Journal of Plasticity, 2010, 26, 507-515.	4.1	46
17	Strain hardening in bent copper foils. Journal of the Mechanics and Physics of Solids, 2011, 59, 1731-1751.	2.3	42
18	Tensile and microbend tests of pure aluminum foils with different thicknesses. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 513-514, 77-82.	2.6	40

#	Article	IF	Citations
19	On large-strain finite element solutions of higher-order gradient crystal plasticity. International Journal of Solids and Structures, 2011, 48, 3382-3394.	1.3	40
20	Effects of crystal orientation on bendability of aluminum alloy sheet. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 4050-4054.	2.6	38
21	Higher-order gradient effects in micropillar compression. Acta Materialia, 2013, 61, 2283-2297.	3.8	35
22	Comparison of bifurcation and imperfection analyses of localized necking in rate-independent polycrystalline sheets. International Journal of Solids and Structures, 2012, 49, 2073-2084.	1.3	34
23	Interpretation of the behavior of metals under large plastic shear deformations: comparison of macroscopic predictions to physically based predictions. International Journal of Plasticity, 1999, 15, 1217-1236.	4.1	32
24	Plastic flow localization analysis of heterogeneous materials using homogenization-based finite element method. International Journal of Mechanical Sciences, 2013, 72, 63-74.	3.6	32
25	Improvement in formability of aluminum alloy sheet by enhancing geometrical hardening. Computational Materials Science, 2009, 46, 459-468.	1.4	29
26	Shear band development predicted by a non-normality theory of plasticity and comparison to crystal plasticity predictions. International Journal of Solids and Structures, 2001, 38, 8945-8960.	1.3	28
27	Shearâ€“band development in polycrystalline metal with strengthâ€“differential effect and plastic volume expansion. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 2243-2259.	1.0	26
28	Shear band development in anisotropic bent specimens. European Journal of Mechanics, A/Solids, 2004, 23, 811-821.	2.1	26
29	Quantitative re-examination of Taylor model for FCC polycrystals. Computational Materials Science, 2012, 51, 290-302.	1.4	26
30	Plastic spin associated with a non-normality theory of plasticity. European Journal of Mechanics, A/Solids, 2001, 20, 893-905.	2.1	25
31	Plastic spin associated with a corner theory of plasticity. International Journal of Plasticity, 1995, 11, 547-570.	4.1	24
32	Roles of plastic spin in shear banding. International Journal of Plasticity, 1996, 12, 671-693.	4.1	23
33	Effects of plastic anisotropy on crack-tip behaviour. International Journal of Fracture, 2002, 117, 297-312.	1.1	23
34	Theoretical and experimental study of forming-limit strain of half-hard AA1100 aluminium alloy sheet. Computational Materials Science, 2013, 77, 61-71.	1.4	22
35	A higher-order strain gradient plasticity theory with a corner-like effect. International Journal of Solids and Structures, 2015, 58, 62-72.	1.3	18
36	Nonuniform and localized deformation in single crystals under dynamic tensile loading. Journal of the Mechanics and Physics of Solids, 2019, 125, 347-359.	2.3	17

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37	Particle debonding using different yield criteria. European Journal of Mechanics, A/Solids, 2004, 23, 737-751.	2.1	16
38	Numerical investigation on a key factor in superior stretchability of face-centered cubic polycrystalline sheets. International Journal of Mechanical Sciences, 2012, 58, 47-56.	3.6	16
39	Forming limit strains of 5000 series aluminum alloys with different magnesium contents. Keikinzoku/Journal of Japan Institute of Light Metals, 2006, 56, 323-328.	0.1	14
40	A simple model for size effects in constrained shear. Extreme Mechanics Letters, 2019, 33, 100581.	2.0	14
41	A Polycrystalline Analysis of Hexagonal Metal Based on the Homogenized Method. Key Engineering Materials, 2007, 340-341, 1049-1054.	0.4	12
42	Effects of microscopic boundary conditions on plastic deformations of small-sized single crystals. International Journal of Solids and Structures, 2009, 46, 4396-4408.	1.3	11
43	Crystal plasticity model accounting for pressure dependence of yielding and plastic volume expansion. Scripta Materialia, 2003, 48, 605-610.	2.6	10
44	Forming Limit Stresses of Sheet Metal under Proportional and Combined Loadings. AIP Conference Proceedings, 2005, , .	0.3	9
45	Effect of texture variation through sheet thickness on bendability in aluminum alloy sheet*. Keikinzoku/Journal of Japan Institute of Light Metals, 2011, 61, 53-59.	0.1	9
46	Simulations of micro-bending of thin foils using a scale dependent crystal plasticity model. Modelling and Simulation in Materials Science and Engineering, 2007, 15, S13-S22.	0.8	8
47	Effects of Texture on Mechanical Properties of Aluminum Alloy Sheets and Texture Optimization Strategy. AIP Conference Proceedings, 2005, , .	0.3	7
48	Constraint and size effects in confined layer plasticity. Journal of the Mechanics and Physics of Solids, 2021, 149, 104328.	2.3	7
49	Measurement of Bauschinger Effect in Ultrafine-Grained A1070 Aluminum Rods. Key Engineering Materials, 0, 725, 202-207.	0.4	6
50	Interfacial microscopic boundary conditions associated with backstress-based higher-order gradient crystal plasticity theory. Journal of Mechanics of Materials and Structures, 2017, 12, 193-218.	0.4	6
51	A strain-gradient plasticity theory with a corner-like effect: a thermodynamics-based extension. International Journal of Fracture, 2016, 200, 115-125.	1.1	5
52	Finite element simulations of large elasto-plastic deformation with different spin tensors. Mechanics Research Communications, 1994, 21, 517-523.	1.0	3
53	Effect of Spin on Strain Localization Behavior Predicted by Noncoaxial Plasticity Model.. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 1996, 62, 814-821.	0.2	3
54	Modelling of overall plastic deformation in rubber-toughened polymers. Acta Mechanica, 2004, 172, 95-112.	1.1	3

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55	Effects of Crystallographic Texture on Plastic Flow Localization. Key Engineering Materials, 2007, 340-341, 211-216.	0.4	2
56	Athermal strength of pure aluminum is significantly decreased by severe plastic deformation and it is markedly augmented by subsequent annealing. Scientific Reports, 2020, 10, 14090.	1.6	2
57	On scale-dependent crystal plasticity models. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2014, , 305-353.	0.3	2
58	Permanent Strength of Metals: A Case Study on FCC Metals Processed by Severe Plastic Deformation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2022, 53, 2004-2017.	1.1	2
59	Plastic flow localization resulting from yield surface vertices: crystal plasticity and corner theories of plasticity. International Journal of Material Forming, 2022, 15, .	0.9	2
60	Crystal Plasticity Simulation of Forming Limit Strains for Fcc Polycrystalline Sheets with Different r-values. AIP Conference Proceedings, 2011, , .	0.3	1
61	Yielding and strain hardening in aluminium single-crystal foils subjected to tension and bending. Philosophical Magazine Letters, 2012, 92, 507-516.	0.5	1
62	Computational Plasticity. Journal of the Japan Society for Technology of Plasticity, 2011, 52, 88-95.	0.0	1
63	Investigation of the origins of Bauschinger effect in polycrystalline metals. The Proceedings of the Computational Mechanics Conference, 2018, 2018.31, 064.	0.0	1
64	Plane strain wedge indentation revisited. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	1.0	1
65	Plastic Instability Analysis of Thin-Walled Tube Usine Bi-Axial Stress Control. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2004, 70, 1499-1506.	0.2	0
66	Strain Gradient Plasticity: An Application to Plastic Flow Localization Analysis. Key Engineering Materials, 0, 725, 41-46.	0.4	0
67	Description of plane strain deformation of FCC crystals by a gradient theory of crystal plasticity. Extreme Mechanics Letters, 2021, 44, 101221.	2.0	0
68	A study on damage theory for numerical analysis of creep deformation. The Proceedings of the JSME Annual Meeting, 2002, 2002.2, 77-78.	0.0	0
69	618 Analysis of high strain rate plastic deformation of steel considering thermally activated dislocation motions. The Proceedings of Autumn Conference of Tohoku Branch, 2005, 2005.41, 255-256.	0.0	0
70	617 Effects of cube texture on forming limit of aluminum alloy sheets. The Proceedings of Autumn Conference of Tohoku Branch, 2005, 2005.41, 253-254.	0.0	0
71	1312 Deformation analysis of crystalline polymer considering volume change behavior. The Proceedings of the Computational Mechanics Conference, 2005, 2005.18, 685-686.	0.0	0
72	OS0314 On Numerical Methods for Simulating Rolling Process of Magnesium Sheets with Application of Crystal Plasticity Model. The Proceedings of the Materials and Mechanics Conference, 2012, 2012, _OS0314-1_-_OS0314-2_.	0.0	0

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73	Analysis of nonuniform plastic deformation using higher-order strain-gradient plasticity theory. The Proceedings of the Computational Mechanics Conference, 2018, 2018.31, 063.	0.0	0