Mitsutoshi Kuroda

List of Publications by Year in Descending Order

72 papers	1,984 citations	25 h-index	44 g-index
74 ext. papers	2,180 ext. citations	3.9 avg, IF	5.23 L-index

#	Paper	IF	Citations
72	Description of plane strain deformation of FCC crystals by a gradient theory of crystal plasticity. *Extreme Mechanics Letters*, **2021**, 44, 101221	3.9	
71	Constraint and size effects in confined layer plasticity. *Journal of the Mechanics and Physics of Solids* , **2021**, 149, 104328	5	1
70	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	4.9	1
69	A simple model for size effects in constrained shear. *Extreme Mechanics Letters*, **2019**, 33, 100581	3.9	6
68	Nonuniform and localized deformation in single crystals under dynamic tensile loading. *Journal of the Mechanics and Physics of Solids*, **2019**, 125, 347-359	5	9
67	Grain size effects in aluminum processed by severe plastic deformation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 710, 300-308	5.3	38
66	Investigation of the origins of Bauschinger effect in polycrystalline metals. *The Proceedings of the Computational Mechanics Conference*, **2018**, 2018.31, 064	0	
65	Analysis of nonuniform plastic deformation using higher-order strain-gradient plasticity theory. *The Proceedings of the Computational Mechanics Conference*, **2018**, 2018.31, 063	0	
64	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	1.2	5
63	A strain-gradient plasticity theory with a corner-like effect: a thermodynamics-based extension. *International Journal of Fracture*, **2016**, 200, 115-125	2.3	3
62	Strain Gradient Plasticity: An Application to Plastic Flow Localization Analysis. *Key Engineering Materials*, **2016**, 725, 41-46	0.4	
61	Measurement of Bauschinger Effect in Ultrafine-Grained A1070 Aluminum Rods. *Key Engineering Materials*, **2016**, 725, 202-207	0.4	5
60	A higher-order strain gradient plasticity theory with a corner-like effect. *International Journal of Solids and Structures*, **2015**, 58, 62-72	3.1	16
59	Strain Gradient Plasticity: A Variety of Treatments and Related Fundamental Issues. *Advanced Structured Materials*, **2015**, 199-218	0.6	3
58	On scale-dependent crystal plasticity models. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2014**, 305-353	0.6	2
57	Theoretical and experimental study of forming-limit strain of half-hard AA1100 aluminium alloy sheet. *Computational Materials Science*, **2013**, 77, 61-71	3.2	19
56	Plastic flow localization analysis of heterogeneous materials using homogenization-based finite element method. *International Journal of Mechanical Sciences*, **2013**, 72, 63-74	5.5	27

55	Higher-order gradient effects in micropillar compression. *Acta Materialia*, **2013**, 61, 2283-2297	8.4	30
54	Numerical investigation on a key factor in superior stretchability of face-centered cubic polycrystalline sheets. *International Journal of Mechanical Sciences*, **2012**, 58, 47-56	5.5	15
53	Comparison of bifurcation and imperfection analyses of localized necking in rate-independent polycrystalline sheets. *International Journal of Solids and Structures*, **2012**, 49, 2073-2084	3.1	29
52	Yielding and strain hardening in aluminium single-crystal foils subjected to tension and bending. *Philosophical Magazine Letters*, **2012**, 92, 507-516	1	1
51	Quantitative re-examination of Taylor model for FCC polycrystals. *Computational Materials Science*, **2012**, 51, 290-302	3.2	22
50	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	
49	Crystal Plasticity Simulation of Forming Limit Strains for Fcc Polycrystalline Sheets with Different r-values **2011**,		1
48	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	0.3	9
47	Crystal plasticity analysis of texture development in magnesium alloy during extrusion. *International Journal of Plasticity*, **2011**, 27, 1916-1935	7.6	153
46	On large-strain finite element solutions of higher-order gradient crystal plasticity. *International Journal of Solids and Structures*, **2011**, 48, 3382-3394	3.1	38
45	Effects of crystal orientation on bendability of aluminum alloy sheet. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 4050-4054	5.3	27
44	Solid-state recycling of aluminium alloy swarf through cold profile extrusion and cold rolling. *Journal of Materials Processing Technology*, **2011**, 211, 1878-1887	5.3	40
43	Strain hardening in bent copper foils. *Journal of the Mechanics and Physics of Solids*, **2011**, 59, 1731-1751	5	37
42	Computational Plasticity. *Journal of the Japan Society for Technology of Plasticity*, **2011**, 52, 88-95	0.3	
41	An alternative treatment of phenomenological higher-order strain-gradient plasticity theory. *International Journal of Plasticity*, **2010**, 26, 507-515	7.6	39
40	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	5.3	33
39	Effects of microscopic boundary conditions on plastic deformations of small-sized single crystals. *International Journal of Solids and Structures*, **2009**, 46, 4396-4408	3.1	11
38	Improvement in formability of aluminum alloy sheet by enhancing geometrical hardening. *Computational Materials Science*, **2009**, 46, 459-468	3.2	27

37	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	3.2	58
36	On the formulations of higher-order strain gradient crystal plasticity models. *Journal of the Mechanics and Physics of Solids*, **2008**, 56, 1591-1608	5	123
35	A finite deformation theory of higher-order gradient crystal plasticity. *Journal of the Mechanics and Physics of Solids*, **2008**, 56, 2573-2584	5	68
34	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	8.4	53
33	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	2	8
32	The effects of texture on formability of aluminum alloy sheets. *Acta Materialia*, **2007**, 55, 4499-4506	8.4	95
31	Effects of texture on shear band formation in plane strain tension/compression and bending. *International Journal of Plasticity*, **2007**, 23, 244-272	7.6	120
30	Path-dependence of the forming limit stresses in a sheet metal. *International Journal of Plasticity*, **2007**, 23, 361-384	7.6	128
29	Effects of Crystallographic Texture on Plastic Flow Localization. *Key Engineering Materials*, **2007**, 340-341, 211-216	0.4	0
28	A Polycrystalline Analysis of Hexagonal Metal Based on the Homogenized Method. *Key Engineering Materials*, **2007**, 340-341, 1049-1054	0.4	12
27	Forming limit strains of 5000 series aluminum alloys with different magnesium contents. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2006**, 56, 323-328	0.3	12
26	Studies of scale dependent crystal viscoplasticity models. *Journal of the Mechanics and Physics of Solids*, **2006**, 54, 1789-1810	5	75
25	Effects of Texture on Mechanical Properties of Aluminum Alloy Sheets and Texture Optimization Strategy. *AIP Conference Proceedings*, **2005**,	0	5
24	Forming Limit Stresses of Sheet Metal under Proportional and Combined Loadings. *AIP Conference Proceedings*, **2005**,	0	6
23	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	
22	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	
21	1312 Deformation analysis of crystalline polymer considering volume change behavior. *The Proceedings of the Computational Mechanics Conference*, **2005**, 2005.18, 685-686	0	
20	Modelling of overall plastic deformation in rubber-toughened polymers. *Acta Mechanica*, **2004**, 172, 95-112	2.2	3

19	Shear band development in anisotropic bent specimens. *European Journal of Mechanics, A/Solids*, **2004**, 23, 811-821	3.7	20
18	Particle debonding using different yield criteria. *European Journal of Mechanics, A/Solids*, **2004**, 23, 737-751	3.7	12
17	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		
16	Crystal plasticity model accounting for pressure dependence of yielding and plastic volume expansion. *Scripta Materialia*, **2003**, 48, 605-610	5.6	9
15	Effects of plastic anisotropy on crack-tip behaviour. *International Journal of Fracture*, **2002**, 117, 297-312	2.3	21
14	Shear band development in polycrystalline metal with strength differential effect and plastic volume expansion. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2002**, 458, 2243-2259	2.4	23
13	A study on damage theory for numerical analysis of creep deformation. *The Proceedings of the JSME Annual Meeting*, **2002**, 2002.2, 77-78		
12	Plastic spin associated with a non-normality theory of plasticity. *European Journal of Mechanics, A/Solids*, **2001**, 20, 893-905	3.7	22
11	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	3.1	27
10	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	5	85
9	Effect of strain path change on limits to ductility of anisotropic metal sheets. *International Journal of Mechanical Sciences*, **2000**, 42, 867-887	5.5	90
8	Forming limit diagrams for anisotropic metal sheets with different yield criteria. *International Journal of Solids and Structures*, **2000**, 37, 5037-5059	3.1	123
7	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	7.6	23
6	Use of abrupt strain path change for determining subsequent yield surface: illustrations of basic idea. *Acta Materialia*, **1999**, 47, 3879-3890	8.4	69
5	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		2
4	Roles of plastic spin in shear banding. *International Journal of Plasticity*, **1996**, 12, 671-693	7.6	21
3	Plastic spin associated with a corner theory of plasticity. *International Journal of Plasticity*, **1995**, 11, 547-560	7.6	21
2	Finite element simulations of large elasto-plastic deformation with different spin tensors. *Mechanics Research Communications*, **1994**, 21, 517-523	2.2	3

1	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*,1	2.3	0