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List of Publications by Year in Descending Order

82 papers	1,599 citations	21 h-index	38 g-index
82 ext. papers	1,810 ext. citations	3.4 avg, IF	5.02 L-index

#	Paper	IF	Citations
82	A robust algorithm for rate-independent crystal plasticity. *Computer Methods in Applied Mechanics and Engineering*, **2022**, 393, 114831	5.7	0
81	Spin and vorticity with vanishing rigid-body rotation during shear in continuum mechanics. *Journal of the Mechanics and Physics of Solids*, **2020**, 137, 103835	5	4
80	Regularized Yield Surfaces for Crystal Plasticity of Metals. *Crystals*, **2020**, 10, 1076	2.3	4
79	Bauschinger effect modelled by yield surface distortions. *International Journal of Plasticity*, **2019**, 123, 86-100	7.6	13
78	Relationship between Al-Ni intermetallic Phases and Bond Strength in Roll Bonded Steel-Aluminum Composites with Nickel Interlayers. *Metals*, **2019**, 9, 827	2.3	4
77	The Effect of Elastic Strain and Small Plastic Deformation on Tensile Strength of a Lean AlMgSi Alloy. *Metals*, **2019**, 9, 1276	2.3	1
76	Nano-scale characterisation of sheared β″ precipitates in a deformed Al-Mg-Si alloy. *Scientific Reports*, **2019**, 9, 17446	4.9	17
75	Experimental characterization and modeling of aluminum alloy AA3103 for complex single and double strain-path changes. *International Journal of Plasticity*, **2019**, 112, 158-171	7.6	21
74	Assessment of advanced Taylor models, the Taylor factor and yield-surface exponent for FCC metals. *International Journal of Plasticity*, **2019**, 114, 144-160	7.6	21
73	Through thickness variations of deformation texture in round profile extrusions of 6063-type aluminium alloy: Experiments, FEM and crystal plasticity modelling. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 722, 20-29	5.3	24
72	A combined isotropic, kinematic and distortional hardening model for aluminum and steels under complex strain-path changes. *International Journal of Plasticity*, **2018**, 101, 156-169	7.6	35
71	Influence of Stacking Sequence and Intermediate Layer Thickness in AA6082-IF Steel Tri-Layered Cold Roll Bonded Composite Sheets. *Key Engineering Materials*, **2018**, 767, 316-322	0.4	3
70	Influence of thermomechanical processing sequence on properties of AA6082-IF steel cold roll bonded composite sheet. *Procedia Manufacturing*, **2018**, 15, 152-160	1.5	5
69	Precipitation and strengthening modeling for disk-shaped particles in aluminum alloys: Size distribution considered. *Materialia*, **2018**, 4, 431-443	3.2	8
68	Modelling and experimental validation of microstructure evolution during the cooling stage of homogenization heat treatment of AlMgSi alloys. *Materialia*, **2018**, 4, 70-80	3.2	7
67	Modeling strain-path changes in aluminum and steel. *International Journal of Solids and Structures*, **2017**, 117, 123-136	3.1	25
66	Modeling over-ageing in Al-Mg-Si alloys by a multi-phase CALPHAD-coupled Kampmann-Wagner Numerical model. *Acta Materialia*, **2017**, 122, 178-186	8.4	48

65	A new tribological system test for integrated hot forming and die quenching of aluminium alloy sheets **2017**,		2
64	Precipitation of Non-spherical Particles in Aluminum Alloys Part II: Numerical Simulation and Experimental Characterization During Aging Treatment of an Al-Mg-Si Alloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2016**, 47, 589-599	2.3	33
63	Precipitation of Non-Spherical Particles in Aluminum Alloys Part I: Generalization of the KampmannWagner Numerical Model. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2016**, 47, 581-588	2.3	27
62	Characterization and Modelling of the Microstructure and Texture Evolution in AlMgSi-Extrusions. *Materials Science Forum*, **2016**, 879, 1239-1244	0.4	1
61	Modelling of Strain-Path Transients in Commercially Pure Aluminium. *Materials Science Forum*, **2016** , 877, 662-667	0.4	1
60	A physically-based constitutive model applied to AA6082 aluminium alloy at large strains, high strain rates and elevated temperatures. *Materials and Design*, **2016**, 103, 391-405	8.1	25
59	On the basic relation between mean free slip length and work hardening of metals. *Philosophical Magazine*, **2015**, 95, 2817-2830	1.6	4
58	Multi-component solid solution and cluster hardening of AlMnSi alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 625, 153-157	5.3	14
57	Multi-level modelling of mechanical anisotropy of commercial pure aluminium plate: Crystal plasticity models, advanced yield functions and parameter identification. *International Journal of Plasticity*, **2015**, 66, 3-30	7.6	99
56	Recrystallization behaviour of AA6063 extrusions. *IOP Conference Series: Materials Science and Engineering*, **2015**, 89, 012057	0.4	
55	Precipitation, strength and work hardening of age hardened aluminium alloys. *IOP Conference Series: Materials Science and Engineering*, **2015**, 89, 012013	0.4	10
54	Permanent effect of a cryogenic spill on fracture properties of structural steels. *IOP Conference Series: Materials Science and Engineering*, **2015**, 102, 012004	0.4	
53	Coupled FEM and Alamel-type Polycrystal Plasticity Modelling Applied to Extrusion of Aluminium Alloys. *Materials Today: Proceedings*, **2015**, 2, 4898-4903	1.4	2
52	Strength contributions from precipitates. *Philosophical Magazine Letters*, **2015**, 95, 594-601	1	11
51	Strain-path change induced transients in flow stress, work hardening and r-values in aluminum. *International Journal of Plasticity*, **2015**, 69, 1-20	7.6	56
50	Characterizing Hardening on Annealing of Cold-Rolled Aluminum AA3103 Strips. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2014**, 45, 1597-1608	2.3	9
49	Influence of dispersoids on grain subdivision and texture evolution in aluminium alloys during cold rolling. *Transactions of Nonferrous Metals Society of China*, **2014**, 24, 2072-2078	3.3	8
48	Review of the Taylor ambiguity and the relationship between rate-independent and rate-dependent full-constraints Taylor models. *International Journal of Plasticity*, **2014**, 55, 152-181	7.6	27

47	An explicit integration scheme for hypo-elastic viscoplastic crystal plasticity. *Transactions of Nonferrous Metals Society of China*, **2014**, 24, 2401-2407	3.3	4
46	Modelling the plastic anisotropy of aluminum alloy 3103 sheets by polycrystal plasticity. *Modelling and Simulation in Materials Science and Engineering*, **2014**, 22, 075015	2	24
45	A robust and efficient substepping scheme for the explicit numerical integration of a rate-dependent crystal plasticity model. *International Journal for Numerical Methods in Engineering*, **2014**, 99, 239-262	2.4	19
44	Use of Plane-Strain Tension and Shear Tests to Evaluate Yield Surfaces for AA1050 Aluminium Sheet. *Materials Science Forum*, **2014**, 794-796, 596-601	0.4	1
43	The effect of silicon on the strengthening and work hardening of aluminum at room temperature. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2013**, 563, 147-151	5.3	21
42	Tensile bond strength of cold roll bonded aluminium sheets. *Journal of Materials Processing Technology*, **2013**, 213, 955-960	5.3	14
41	Layer continuity in accumulative roll bonding of dissimilar material combinations. *Materials & Design*, **2013**, 52, 905-915		37
40	On the criterion for compensation to avoid elastic□plastic transients during strain rate change tests. *Acta Materialia*, **2013**, 61, 653-659	8.4	2
39	Additional relaxations in the Alamel texture model. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 580, 349-354	5.3	16
38	Influence of dispersoids on microstructure evolution and work hardening of aluminium alloys during tension and cold rolling. *Philosophical Magazine*, **2013**, 93, 2995-3011	1.6	31
37	Modelling work hardening of aluminium alloys containing dispersoids. *Philosophical Magazine*, **2013** , 93, 3142-3153	1.6	21
36	Stability of rolls in finite-amplitude Rayleigh□Bénard convection in a high-Prandtl-number fluid between a perfectly conducting boundary and a slab of finite thickness and finite conductivity. *European Journal of Mechanics, B/Fluids*, **2012**, 34, 115-120	2.4	
35	Comparison of the influence of Si and Fe in 99.999% purity aluminum and in commercial-purity aluminum. *Scripta Materialia*, **2012**, 67, 217-220	5.6	16
34	Modelling the Recrystallization Behaviour during Industrial Processing of Aluminium Alloys. *Materials Science Forum*, **2012**, 715-716, 543-548	0.4	3
33	Effect of alloying elements on stage-III work-hardening behaviour of Al□Zn□Mg(□Cu) alloys. *International Journal of Materials Research*, **2012**, 103, 603-608	0.5	4
32	Crystal Plasticity Calculations of Mechanical Anisotropy of Aluminium Compared to Experiments and to Yield Criterion Fittings **2012**, 915-920		
31	Modeling of Work-Hardening in an Age-Hardenable AA7108 Aluminum Alloy **2012**, 1785-1790		
30	Effect of Si Addition on Solid Solution Hardening of Al-Mn Alloys **2012**, 1825-1829		

29	Modeling of Transients as a Response to Changes in Strain path of Commercially Pure Aluminium **2012**, 849-854		
28	Threshold Deformation for Exhibiting the Hardening on Annealing Behaviour in AA3103 Alloy **2012**, 1873-1878		
27	Three-Point Bending of Heat-Treatable Aluminum Alloys: Influence of Microstructure and Texture on Bendability and Fracture Behavior. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2011**, 42, 3386-3398	2.3	21
26	3D Crystal Plasticity Modelling of Complex Microstructures in Extruded Products **2011**,		1
25	Modelling the Work Hardening Behaviour of AlMgMn Alloys. *Materials Science Forum*, **2010**, 638-642, 285-290	0.4	0
24	Anisotropy of Bending Properties in Industrial Heat-Treatable Extruded Aluminium Alloys. *Materials Science Forum*, **2010**, 638-642, 487-492	0.4	6
23	Work-hardening behaviour of a heat-treatable AA7108 aluminium alloy deformed to intermediate strains by compression. *Journal of Materials Science*, **2010**, 45, 5323-5331	4.3	8
22	Work- and Age-Hardening Behaviour of a Commercial AA7108 Aluminium Alloy. *Materials Science Forum*, **2009**, 618-619, 555-558	0.4	2
21	Ageing and work-hardening behaviour of a commercial AA7108 aluminium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 524, 151-157	5.3	27
20	Warm forming simulation of AlMg sheet. *Journal of Materials Processing Technology*, **2009**, 209, 5636-5645	1.3	40
19	Sub-structure strengthening and work hardening of an ultra-fine grained aluminium magnesium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 483-484, 51-53	5.3	26
18	A crystal plasticity model for strain-path changes in metals. *International Journal of Plasticity*, **2008**, 24, 1360-1379	7.6	49
17	Evaluation of identification methods for YLD2004-18p. *International Journal of Plasticity*, **2008**, 24, 2248-2277	7.6	58
16	On the formulation of the mechanical threshold stress model. *Acta Materialia*, **2007**, 55, 2739-2746	8.4	13
15	Strengthening mechanisms in solid solution aluminum alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2006**, 37, 1999-2006	2.3	281
14	Large strain work hardening of aluminum alloys and the effect of mg in solid solution. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2006**, 37, 2007-2013	2.3	19
13	Work Hardening Behaviour of Heat-Treatable Al-Mg-Si-Alloys. *Materials Science Forum*, **2006**, 519-521, 1901-1906	0.4	17
12	The Effect of Boundary Structure on the Mechanical Properties of Aluminium Alloys. *Materials Science Forum*, **2006**, 519-521, 63-70	0.4	

11	Planform selection in Rayleigh–Bénard convection between finite slabs. *Journal of Fluid Mechanics*, **2005**, 537, 255	3.7	8
10	Stability of squares and rolls in Rayleigh–Bénard convection in an infinite-Prandtl-number fluid between slabs. *Journal of Fluid Mechanics*, **2005**, 537, 271	3.7	4
9	Modelling grain boundary strengthening in ultra-fine grained aluminum alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 410-411, 178-182	5.2	35
8	A unified microstructural metal plasticity model applied in testing, processing, and forming of aluminium alloys. *International Journal of Materials Research*, **2005**, 96, 532-545		14
7	The effect of boundary spacing on substructure strengthening. *Materials Science and Technology*, **2004**, 20, 1377-1382	1.5	17
6	Coupled FEM and Microstructure Modeling Applied to Rolling and Extrusion of Aluminium Alloys. *Materials Science Forum*, **2003**, 426-432, 3777-3782	0.4	5
5	Characterisation and Modelling of Work Hardening in Al-Mg and Al-Mn Alloys. *Materials Science Forum*, **2002**, 396-402, 1145-1150	0.4	4
4	Modelling the Evolution of Microstructure and Properties during Deformation of Aluminium. *Materials Science Forum*, **2002**, 396-402, 315-326	0.4	2
3	Diffusion of a chemically reactive species from a stretching sheet. *International Journal of Heat and Mass Transfer*, **1994**, 37, 659-664	4.9	146
2	MAGNETOHYDRODYNAMIC MELTING FLOW FROM A HORIZONTAL ROTATING DISK. *Mathematical Models and Methods in Applied Sciences*, **1993**, 03, 373-393	3.5	11
1	COMPUTATION OF THE INLET WALL JET IN A RECTANGULAR ENCLOSURE. *International Journal of Computational Fluid Dynamics*, **1993**, 1, 217-232	1.2	3