

# Ricardo A Lebensohn

## List of Publications by Year in descending order

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209  
papers

12,271  
citations

26626

56  
h-index

28296

105  
g-index

218  
all docs

218  
docs citations

218  
times ranked

4374  
citing authors

#	ARTICLE	IF	CITATIONS
1	Imposing equilibrium on experimental 3-D stress fields using Hodge decomposition and FFT-based optimization. <i>Mechanics of Materials</i> , 2022, 164, 104109.	3.2	1
2	Predicting extreme anisotropy and shape variations in impact testing of tantalum single crystals. <i>International Journal of Solids and Structures</i> , 2022, 241, 111466.	2.7	8
3	New large-strain FFT-based formulation and its application to model strain localization in nano-metallic laminates and other strongly anisotropic crystalline materials. <i>Mechanics of Materials</i> , 2022, 166, 104208.	3.2	20
4	Anisotropic temperature-dependent elastic constants and thermal conductivities of TRISO particle coatings. <i>Journal of Nuclear Materials</i> , 2022, 565, 153718.	2.7	2
5	Data-driven analysis of neutron diffraction line profiles: application to plastically deformed Ta. <i>Scientific Reports</i> , 2022, 12, 5628.	3.3	0
6	Accounting for the effect of dislocation climb-mediated flow on the anisotropy and texture evolution of Mg alloy, AZ31B. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 839, 142581.	5.6	3
7	Study of the interplay between lower-order and higher-order energetic strain-gradient effects in polycrystal plasticity. <i>Journal of the Mechanics and Physics of Solids</i> , 2022, , 104906.	4.8	2
8	Can changes in deformation regimes be inferred from crystallographic preferred orientations in polar ice?. <i>Cryosphere</i> , 2022, 16, 2009-2024.	3.9	4
9	Resonant ultrasound spectroscopy for crystalline samples containing initial strain. <i>Journal of Applied Physics</i> , 2022, 131, .	2.5	2
10	Crystal plasticity modeling of strain-induced martensitic transformations to predict strain rate and temperature sensitive behavior of 304L steels: Applications to tension, compression, torsion, and impact. <i>International Journal of Plasticity</i> , 2022, 156, 103367.	8.8	23
11	Modeling the role of local crystallographic correlations in microstructures of Ti-6Al-4V using a correlated structure visco-plastic self-consistent polycrystal plasticity formulation. <i>Acta Materialia</i> , 2021, 203, 116502.	7.9	28
12	New self-consistent homogenization for thermo-elastic polycrystals with imperfect interfaces. <i>Mechanics of Materials</i> , 2021, 155, 103651.	3.2	9
13	Determining elastic anisotropy of textured polycrystals using resonant ultrasound spectroscopy. <i>Journal of Materials Science</i> , 2021, 56, 10053-10073.	3.7	10
14	A numerical study of reversible plasticity using continuum dislocation mechanics. <i>Comptes Rendus Physique</i> , 2021, 22, 295-312.	0.9	1
15	Electron channeling contrast imaging characterization and crystal plasticity modelling of dislocation activity in Ti21S BCC material. <i>Materialia</i> , 2021, 15, 100996.	2.7	3
16	Experimental and numerical investigation of key microstructural features influencing the localization of plastic deformation in Fe-TiB2 metal matrix composite. <i>Journal of Materials Science</i> , 2021, 56, 11278-11297.	3.7	4
17	Elastoplastic transition in a metastable $\beta$ -Titanium alloy, Timetal-18 " An in-situ synchrotron X-ray diffraction study. <i>International Journal of Plasticity</i> , 2021, 139, 102947.	8.8	16
18	The AFRL Additive Manufacturing Modeling Challenge: Predicting Micromechanical Fields in AM IN625 Using an FFT-Based Method with Direct Input from a 3D Microstructural Image. <i>Integrating Materials and Manufacturing Innovation</i> , 2021, 10, 157-176.	2.6	12

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19	Dislocation interactions in olivine control postseismic creep of the upper mantle. <i>Nature Communications</i> , 2021, 12, 3496.	12.8	14
20	Viscoplastic self-consistent formulation as generalized material model for solid mechanics applications. <i>Applications in Engineering Science</i> , 2021, 6, 100040.	0.8	6
21	An FFT-based approach for Bloch wave analysis: application to polycrystals. <i>Computational Mechanics</i> , 2021, 68, 981-1001.	4.0	6
22	Evaluating the grain-scale deformation behavior of a single-phase FCC high entropy alloy using synchrotron high energy diffraction microscopy. <i>Acta Materialia</i> , 2021, 215, 117120.	7.9	11
23	Spectral phase-field model of deformation twinning and plastic deformation. <i>International Journal of Plasticity</i> , 2021, 143, 103019.	8.8	15
24	Approximation of periodic Green's operator in real space using numerical integration and its use in fast Fourier transform-based micromechanical models. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 7536-7552.	2.8	2
25	Role of crystallographic orientation on intragranular void growth in polycrystalline FCC materials. <i>International Journal of Plasticity</i> , 2021, 147, 103104.	8.8	24
26	Non-orthogonal computational grids for studying dislocation motion in phase field approaches. <i>Computational Materials Science</i> , 2021, 200, 110834.	3.0	8
27	A mechanistic model for creep lifetime of ferritic steels: Application to Grade 91. <i>International Journal of Plasticity</i> , 2021, 147, 103086.	8.8	11
28	A FFT-based numerical implementation of mesoscale field dislocation mechanics: Application to two-phase laminates. <i>International Journal of Solids and Structures</i> , 2020, 184, 136-152.	2.7	17
29	Assessing the reliability of fast Fourier transform-based crystal plasticity simulations of a polycrystalline material near a crack tip. <i>International Journal of Solids and Structures</i> , 2020, 184, 153-166.	2.7	24
30	A new micromechanics based full field numerical framework to simulate the effects of dynamic recrystallization on the formability of HCP metals. <i>International Journal of Plasticity</i> , 2020, 125, 210-234.	8.8	31
31	In-Situ Grain Resolved Stress Characterization During Damage Initiation in Cu-10%W Alloy. <i>Jom</i> , 2020, 72, 48-56.	1.9	7
32	Contribution of intragranular misorientations to the cold rolling textures of ferritic stainless steels. <i>Acta Materialia</i> , 2020, 182, 184-196.	7.9	20
33	On the use of transmission electron microscopy to quantify dislocation densities in bulk metals. <i>Scripta Materialia</i> , 2020, 178, 161-165.	5.2	13
34	A fast Fourier transform-based mesoscale field dislocation mechanics study of grain size effects and reversible plasticity in polycrystals. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 135, 103808.	4.8	41
35	Deformation mechanisms and ductile fracture characteristics of a friction stir processed transformative high entropy alloy. <i>Acta Materialia</i> , 2020, 184, 164-178.	7.9	30
36	Defects in epitaxial Ru(0001) on Al <sub>2</sub> O <sub>3</sub> (0001): Dislocations, stacking faults, and deformation twins. <i>Journal of Applied Physics</i> , 2020, 128, 045304.	2.5	4

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37	Seismic Anisotropy of Temperate Ice in Polar Ice Sheets. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020, 125, e2020JF005714.	2.8	4
38	New robust self-consistent homogenization schemes of elasto-viscoplastic polycrystals. <i>International Journal of Solids and Structures</i> , 2020, 202, 434-453.	2.7	19
39	A multi-GPU implementation of a full-field crystal plasticity solver for efficient modeling of high-resolution microstructures. <i>Computer Physics Communications</i> , 2020, 254, 107231.	7.5	30
40	Integration of phase-field model and crystal plasticity for the prediction of process-structure-property relation of additively manufactured metallic materials. <i>International Journal of Plasticity</i> , 2020, 128, 102670.	8.8	65
41	Modeling of the thermo-mechanical response and texture evolution of WE43 Mg alloy in the dynamic recrystallization regime using a viscoplastic self-consistent formulation. <i>International Journal of Plasticity</i> , 2020, 130, 102705.	8.8	50
42	Polycrystal thermo-elasticity revisited: theory and applications. <i>Comptes Rendus - Mecanique</i> , 2020, 348, 877-891.	0.7	2
43	Spectral methods for full-field micromechanical modelling of polycrystalline materials. <i>Computational Materials Science</i> , 2020, 173, 109336.	3.0	51
44	A thermo-elastoplastic self-consistent homogenization method for inter-granular plasticity with application to thermal ratcheting of TATB. <i>Advanced Modeling and Simulation in Engineering Sciences</i> , 2020, 7, .	1.7	6
45	Particle interspacing effects on the mechanical behavior of a Fe-TiB <sub>2</sub> metal matrix composite using FFT-based mesoscopic field dislocation mechanics. <i>Advanced Modeling and Simulation in Engineering Sciences</i> , 2020, 7, .	1.7	7
46	An Investigation into the Role of Dislocation Climb During Intermediate Temperature Flow of Mg Alloys. <i>Minerals, Metals and Materials Series</i> , 2020, , 115-122.	0.4	0
47	Polycrystal Plasticity Models Based on Green's Functions: Mean-Field Self-Consistent and Full-Field Fast Fourier Transform Formulations. , 2020, , 1657-1683.		0
48	A review of numerical modelling of the dynamics of microstructural development in rocks and ice: Past, present and future. <i>Journal of Structural Geology</i> , 2019, 125, 111-123.	2.3	22
49	Time for anisotropy: The significance of mechanical anisotropy for the development of deformation structures. <i>Journal of Structural Geology</i> , 2019, 125, 41-47.	2.3	12
50	A method for including diffusive effects in texture evolution. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 125, 785-804.	4.8	1
51	Shear localisation in anisotropic, non-linear viscous materials that develop a CPO: A numerical study. <i>Journal of Structural Geology</i> , 2019, 124, 81-90.	2.3	11
52	Comparing local deformation measurements to predictions from crystal plasticity during reverse loading of an aerospace alloy. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 580, 012028.	0.6	0
53	Modelling recrystallization textures driven by intragranular fluctuations implemented in the viscoplastic self-consistent formulation. <i>Acta Materialia</i> , 2019, 164, 530-546.	7.9	57
54	Predicting the 3D fatigue crack growth rate of small cracks using multimodal data via Bayesian networks: In-situ experiments and crystal plasticity simulations. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 115, 208-229.	4.8	80

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55	OpenMP and MPI implementations of an elasto-viscoplastic fast Fourier transform-based micromechanical solver for fast crystal plasticity modeling. <i>Advances in Engineering Software</i> , 2018, 126, 46-60.	3.8	39
56	Computational Homogenization of Polycrystals. <i>Advances in Applied Mechanics</i> , 2018, , 1-114.	2.3	70
57	Polycrystal Plasticity Models Based on Green's Functions: Mean-Field Self-Consistent and Full-Field Fast Fourier Transform Formulations. , 2018, , 1-27.		0
58	Validation of micro-mechanical FFT-based simulations using High Energy Diffraction Microscopy on Ti-7Al. <i>Acta Materialia</i> , 2018, 154, 273-283.	7.9	50
59	Coupled elasticity, plastic slip, and twinning in single crystal titanium loaded by split-Hopkinson pressure bar. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 119, 274-297.	4.8	15
60	Mechanical response of stainless steel subjected to biaxial load path changes: Cruciform experiments and multi-scale modeling. <i>International Journal of Plasticity</i> , 2018, 108, 144-168.	8.8	36
61	An efficient full-field crystal plasticity-based M <sup>2</sup> K framework to study the effect of 3D microstructural features on the formability of polycrystalline materials. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2018, 26, 075002.	2.0	10
62	Modeling of intragranular misorientation and grain fragmentation in polycrystalline materials using the viscoplastic self-consistent formulation. <i>International Journal of Plasticity</i> , 2018, 109, 193-211.	8.8	46
63	Spectral database constitutive representation within a spectral micromechanical solver for computationally efficient polycrystal plasticity modelling. <i>Computational Mechanics</i> , 2018, 61, 89-104.	4.0	31
64	Modeling the Effect of Alloying Elements in Magnesium on Deformation Twin Characteristics. <i>Minerals, Metals and Materials Series</i> , 2017, , 159-165.	0.4	2
65	Processing and consolidation of copper/tungsten. <i>Journal of Materials Science</i> , 2017, 52, 1172-1182.	3.7	8
66	Intergranular Strain Evolution During Biaxial Loading: A Multiscale FE-FFT Approach. <i>Jom</i> , 2017, 69, 839-847.	1.9	14
67	Assessing reliability of fatigue indicator parameters for small crack growth via a probabilistic framework. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2017, 25, 045010.	2.0	40
68	Instantiation of crystal plasticity simulations for micromechanical modelling with direct input from microstructural data collected at light sources. <i>Scripta Materialia</i> , 2017, 132, 73-77.	5.2	28
69	Subgrain Rotation Recrystallization During Shearing: Insights From Full-Field Numerical Simulations of Halite Polycrystals. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 8810-8827.	3.4	22
70	Parameter estimation in a thermoelastic composite problem via adjoint formulation and model reduction. <i>International Journal for Numerical Methods in Engineering</i> , 2017, 112, 578-600.	2.8	8
71	Role of alloying elements on twin growth and twin transmission in magnesium alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 706, 295-303.	5.6	58
72	Predicting intragranular misorientation distributions in polycrystalline metals using the viscoplastic self-consistent formulation. <i>Acta Materialia</i> , 2017, 140, 398-410.	7.9	43

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73	From Solidification Processing to Microstructure to Mechanical Properties: A Multi-scale X-ray Study of an Al-Cu Alloy Sample. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 5529-5546.	2.2	18
74	Modeling the effect of neighboring grains on twin growth in HCP polycrystals. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2017, 25, 064007.	2.0	39
75	Efficient fast Fourier transform-based numerical implementation to simulate large strain behavior of polycrystalline materials. <i>International Journal of Plasticity</i> , 2017, 98, 65-82.	8.8	24
76	Dynamic recrystallization during deformation of polycrystalline ice: insights from numerical simulations. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20150346.	3.4	31
77	Dynamic recrystallisation of ice aggregates during co-axial viscoplastic deformation: a numerical approach. <i>Journal of Glaciology</i> , 2016, 62, 359-377.	2.2	36
78	Two-phase deformation of lower mantle mineral analogs. <i>Earth and Planetary Science Letters</i> , 2016, 456, 134-145.	4.4	28
79	Experiment-based validation and uncertainty quantification of coupled multi-scale plasticity models. <i>Multidiscipline Modeling in Materials and Structures</i> , 2016, 12, 151-176.	1.3	13
80	A higher order elasto-viscoplastic model using fast Fourier transforms: Effects of lattice curvatures on mechanical response of nanocrystalline metals. <i>International Journal of Plasticity</i> , 2016, 83, 126-152.	8.8	22
81	A numerical procedure enabling accurate descriptions of strain rate-sensitive flow of polycrystals within crystal visco-plasticity theory. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 308, 468-482.	6.6	67
82	Microstructural effects on damage evolution in shocked copper polycrystals. <i>Acta Materialia</i> , 2016, 116, 270-280.	7.9	43
83	Full-field predictions of ice dynamic recrystallisation under simple shear conditions. <i>Earth and Planetary Science Letters</i> , 2016, 450, 233-242.	4.4	38
84	Study of lattice strain evolution during biaxial deformation of stainless steel using a finite element and fast Fourier transform based multi-scale approach. <i>Acta Materialia</i> , 2016, 118, 28-43.	7.9	26
85	Characterization and modeling of mechanical behavior of single crystal titanium deformed by split-Hopkinson pressure bar. <i>International Journal of Plasticity</i> , 2016, 82, 225-240.	8.8	43
86	Average intragranular misorientation trends in polycrystalline materials predicted by a viscoplastic self-consistent approach. <i>Acta Materialia</i> , 2016, 104, 228-236.	7.9	60
87	Numerical implementation of non-local polycrystal plasticity using fast Fourier transforms. <i>Journal of the Mechanics and Physics of Solids</i> , 2016, 97, 333-351.	4.8	75
88	Effect of microstructure on strain localization in a 7050 aluminum alloy: Comparison of experiments and modeling for various textures. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 661, 187-197.	5.6	34
89	Simulation domain size requirements for elastic response of 3D polycrystalline materials. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2016, 24, 015006.	2.0	14
90	Comparison in 3D of Experiments on, and Simulations of Plastic Deformation of Polycrystals. <i>Microscopy and Microanalysis</i> , 2015, 21, 2371-2372.	0.4	3

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91	Factors contributing to plastic strain amplification in slip dominated deformation of magnesium alloys. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2015, 23, 085002.	2.0	1
92	A multiscale simulation framework of the accumulative roll bonding process accounting for texture evolution. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 631, 104-119.	5.6	42
93	Combined effects of anisotropy and tension-compression asymmetry on the torsional response of AZ31 Mg. <i>International Journal of Solids and Structures</i> , 2015, 58, 190-200.	2.7	48
94	A Resource Allocation Framework for Experiment-Based Validation of Numerical Models. <i>Mechanics of Advanced Materials and Structures</i> , 2015, 22, 641-654.	2.6	20
95	The use of discrete harmonics in direct multi-scale embedding of polycrystal plasticity. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 283, 224-242.	6.6	21
96	Influence of microstructure variability on short crack behavior through postulated micromechanical short crack driving force metrics. <i>Engineering Fracture Mechanics</i> , 2015, 138, 265-288.	4.3	39
97	Calculation of grain boundary normals directly from 3D microstructure images. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2015, 23, 035005.	2.0	20
98	In-situ observation of bulk 3D grain evolution during plastic deformation in polycrystalline Cu. <i>International Journal of Plasticity</i> , 2015, 67, 217-234.	8.8	88
99	An integrated fast Fourier transform-based phase-field and crystal plasticity approach to model recrystallization of three dimensional polycrystals. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 285, 829-848.	6.6	96
100	Numerical study of the stress state of a deformation twin in magnesium. <i>Acta Materialia</i> , 2015, 84, 349-358.	7.9	191
101	Combined Use of DIC, EBSD and Simulation to Understand the Microscale Plastic Strain Distribution in Mg Alloys. <i>Microscopy and Microanalysis</i> , 2014, 20, 1462-1463.	0.4	1
102	Validation of a numerical method based on Fast Fourier Transforms for heterogeneous thermoelastic materials by comparison with analytical solutions. <i>Computational Materials Science</i> , 2014, 87, 209-217.	3.0	61
103	Microscale plastic strain heterogeneity in slip dominated deformation of magnesium alloy containing rare earth. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 603, 37-51.	5.6	63
104	Interpretation of Microstructural Effects on Porosity Evolution Using a Combined Dilatational/Crystal Plasticity Computational Approach. <i>Jom</i> , 2014, 66, 437-443.	1.9	7
105	Multiscale modeling of ice deformation behavior. <i>Journal of Structural Geology</i> , 2014, 61, 78-108.	2.3	64
106	The influence of grain shape and volume fraction of sheet silicates on elastic properties of aggregates: Biotite platelets in an isotropic matrix. <i>Geophysics</i> , 2014, 79, D433-D441.	2.6	10
107	Uncertainty Quantification in Prediction of the In-Plane Young's Modulus of Thin Films With Fiber Texture. <i>Journal of Microelectromechanical Systems</i> , 2014, 23, 380-390.	2.5	21
108	Polycrystal Plasticity: Comparison Between Grain - Scale Observations of Deformation and Simulations. <i>Annual Review of Condensed Matter Physics</i> , 2014, 5, 317-346.	14.5	130



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109	An improved algorithm for the polycrystal viscoplastic self-consistent model and its integration with implicit finite element schemes. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2014, 22, 055023.	2.0	12
110	Influence of Temperature on the Dynamic Tensile Behavior of Zirconium. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 5877-5882.	2.2	3
111	Experiment-Based Validation and Uncertainty Quantification of Coupled Multi-Scale Plasticity Models. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2014, , 203-213.	0.5	1
112	Modeling void growth in polycrystalline materials. <i>Acta Materialia</i> , 2013, 61, 6918-6932.	7.9	81
113	Modeling mechanical response and texture evolution of $\hat{\epsilon}$ -uranium as a function of strain rate and temperature using polycrystal plasticity. <i>International Journal of Plasticity</i> , 2013, 43, 70-84.	8.8	118
114	Integration of self-consistent polycrystal plasticity with dislocation density based hardening laws within an implicit finite element framework: Application to low-symmetry metals. <i>Journal of the Mechanics and Physics of Solids</i> , 2013, 61, 2034-2046.	4.8	146
115	Modeling bending of $\hat{\epsilon}$ -titanium with embedded polycrystal plasticity in implicit finite elements. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 564, 116-126.	5.6	153
116	Numerical modelling of porphyroclast and porphyroblast rotation in anisotropic rocks. <i>Tectonophysics</i> , 2013, 587, 4-29.	2.2	61
117	A spectral method solution to crystal elasto-viscoplasticity at finite strains. <i>International Journal of Plasticity</i> , 2013, 46, 37-53.	8.8	332
118	Interplay of martensitic phase transformation and plastic slip in polycrystals. <i>Acta Materialia</i> , 2013, 61, 4384-4397.	7.9	61
119	Twin boundary-induced intrinsic strengthening in Ni. <i>Thin Solid Films</i> , 2013, 530, 14-19.	1.8	3
120	On the Combined Effect of Pressure and Third Invariant on Yielding of Porous Solids With von Mises Matrix. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2013, 80, .	2.2	39
121	Controlled shock loading conditions for microstructural correlation of dynamic damage behavior. <i>AIP Conference Proceedings</i> , 2012, , .	0.4	4
122	Accounting for local interactions in the prediction of roping of ferritic stainless steel sheets. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2012, 20, 024008.	2.0	30
123	Substructure Dynamics in Crystalline Materials: New Insight from <i>In Situ</i> Experiments, Detailed EBSD Analysis of Experimental and Natural Samples and Numerical Modelling. <i>Materials Science Forum</i> , 2012, 715-716, 502-507.	0.3	6
124	Effect of single-crystal plastic deformation mechanisms on the dilatational plastic response of porous polycrystals. <i>International Journal of Solids and Structures</i> , 2012, 49, 3838-3852.	2.7	30
125	Influence of texture and test velocity on the dynamic, high-strain, tensile behavior of zirconium. <i>Acta Materialia</i> , 2012, 60, 4379-4392.	7.9	53
126	Improved constitutive description of single crystal viscoplastic deformation by dislocation climb. <i>Comptes Rendus - Mecanique</i> , 2012, 340, 289-295.	2.1	15



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127	Effects of microstructure and shock loading conditions on the damage behavior of polycrystalline copper. EPJ Web of Conferences, 2012, 26, 02008.	0.3	5
128	Anisotropic stress-strain response and microstructure evolution of textured $\delta$ -uranium. Acta Materialia, 2012, 60, 702-715.	7.9	109
129	Study of internal lattice strain distributions in stainless steel using a full-field elasto-viscoplastic formulation based on fast Fourier transforms. Acta Materialia, 2012, 60, 3094-3106.	7.9	89
130	Multiscale modeling of plasticity based on embedding the viscoplastic self-consistent formulation in implicit finite elements. International Journal of Plasticity, 2012, 28, 124-140.	8.8	194
131	An elasto-viscoplastic formulation based on fast Fourier transforms for the prediction of micromechanical fields in polycrystalline materials. International Journal of Plasticity, 2012, 32-33, 59-69.	8.8	438
132	Modeling microstructural effects in dilatational plasticity of polycrystalline materials. Procedia IUTAM, 2012, 3, 314-330.	1.2	5
133	Effects of grain size and boundary structure on the dynamic tensile response of copper. Journal of Applied Physics, 2011, 110, .	2.5	159
134	Full-Field vs. Homogenization Methods to Predict Microstructure-Property Relations for Polycrystalline Materials. , 2011, , 393-441.		28
135	Measurements and full-field predictions of deformation heterogeneities in ice. Earth and Planetary Science Letters, 2011, 305, 153-160.	4.4	43
136	Texturing in Earth's inner core due to preferential growth in its equatorial belt. Physics of the Earth and Planetary Interiors, 2011, 188, 173-184.	1.9	20
137	Strain localization and porphyroclast rotation. Geology, 2011, 39, 275-278.	4.4	43
138	Methodological challenges in combining quantum-mechanical and continuum approaches for materials science applications. European Physical Journal Plus, 2011, 126, 1.	2.6	22
139	Fast fourier transform-based modeling for the determination of micromechanical fields in polycrystals. Jom, 2011, 63, 13-18.	1.9	70
140	Modeling the viscoplastic micromechanical response of two-phase materials using Fast Fourier Transforms. International Journal of Plasticity, 2011, 27, 707-727.	8.8	79
141	Dilatational viscoplasticity of polycrystalline solids with intergranular cavities. Philosophical Magazine, 2011, 91, 3038-3067.	1.6	65
142	On the Role of Local Grain Interactions on Twin Nucleation and Texture Evolution in Hexagonal Materials. Materials Science Forum, 2011, 702-703, 265-268.	0.3	5
143	Quantifying Damage Accumulation Using State-of-the-Art FFT Method. Materials Science Forum, 2011, 702-703, 515-518.	0.3	0
144	An Elastoplastic Finite Element Modeling Coupled with Orientation Image based Micromechanical Approach. AIP Conference Proceedings, 2010, , .	0.4	1

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145	Anisotropic response of high-purity $\hat{\pm}$ -titanium: Experimental characterization and constitutive modeling. <i>International Journal of Plasticity</i> , 2010, 26, 516-532.	8.8	251
146	Experimental and finite-element analysis of the anisotropic response of high-purity $\hat{\pm}$ -titanium in bending. <i>Acta Materialia</i> , 2010, 58, 5759-5767.	7.9	49
147	Microstructures and rheology of the Earth's upper mantle inferred from a multiscale approach. <i>Comptes Rendus Physique</i> , 2010, 11, 304-315.	0.9	26
148	Comparison of finite element and fast Fourier transform crystal plasticity solvers for texture prediction. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2010, 18, 085005.	2.0	81
149	Stress hot spots in viscoplastic deformation of polycrystals. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2010, 18, 074005.	2.0	65
150	Modeling the mechanical response of polycrystals deforming by climb and glide. <i>Philosophical Magazine</i> , 2010, 90, 567-583.	1.6	56
151	Direct 3D Simulation of Plastic Flow from EBSD Data. , 2009, , 155-167.		4
152	Elastic anisotropy and yield surface estimates of polycrystals. <i>International Journal of Solids and Structures</i> , 2009, 46, 3018-3026.	2.7	77
153	Modeling viscoplastic behavior and heterogeneous intracrystalline deformation of columnar ice polycrystals. <i>Acta Materialia</i> , 2009, 57, 1405-1415.	7.9	71
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