Curt A Bronkhorst

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/3692786/publications.pdf Version: 2024-02-01



#	Article	IF	CITATIONS
1	Crystallographic texture evolution in bulk deformation processing of FCC metals. Journal of the Mechanics and Physics of Solids, 1992, 40, 537-569.	4.8	1,006
2	Effects of grain size and boundary structure on the dynamic tensile response of copper. Journal of Applied Physics, 2011, 110, .	2.5	159
3	An experimental and numerical study of the localization behavior of tantalum and stainless steel. International Journal of Plasticity, 2006, 22, 1304-1335.	8.8	110
4	A dislocation-based multi-rate single crystal plasticity model. International Journal of Plasticity, 2013, 44, 129-146.	8.8	109
5	A second gradient theoretical framework for hierarchical multiscale modeling of materials. International Journal of Plasticity, 2010, 26, 1248-1275.	8.8	88
6	Modeling the microstructural evolution of metallic polycrystalline materials under localization conditions. Journal of the Mechanics and Physics of Solids, 2007, 55, 2351-2383.	4.8	84
7	Modeling void growth in polycrystalline materials. Acta Materialia, 2013, 61, 6918-6932.	7.9	81
8	Modeling the texture evolution of Cu/Nb layered composites during rolling. International Journal of Plasticity, 2013, 49, 71-84.	8.8	72
9	Modelling paper as a two-dimensional elastic–plastic stochastic network. International Journal of Solids and Structures, 2003, 40, 5441-5454.	2.7	71
10	Data driven modeling of plastic deformation. Computer Methods in Applied Mechanics and Engineering, 2017, 318, 981-1004.	6.6	65
11	Incorporating interface affected zones into crystal plasticity. International Journal of Plasticity, 2015, 65, 206-225.	8.8	60
12	Dynamic recrystallization in adiabatic shear banding: Effective-temperature model and comparison to experiments in ultrafine-grained titanium. International Journal of Plasticity, 2018, 111, 107-121.	8.8	56
13	A model for finite-deformation nonlinear thermomechanical response of single crystal copper under shock conditions. Journal of the Mechanics and Physics of Solids, 2013, 61, 1877-1894.	4.8	51
14	A crystal plasticity study of heterophase interface character stability of Cu/Nb bicrystals. International Journal of Plasticity, 2013, 48, 72-91.	8.8	51
15	Microstructural effects on damage evolution in shocked copper polycrystals. Acta Materialia, 2016, 116, 270-280.	7.9	43
16	Strain localization and dynamic recrystallization in polycrystalline metals: Thermodynamic theory and simulation framework. International Journal of Plasticity, 2019, 119, 171-187.	8.8	42
17	Collective nature of plasticity in mediating phase transformation under shock compression. Physical Review B, 2014, 89, .	3.2	40
18	Crystal plasticity model for single crystal Ni-based superalloys: Capturing orientation and temperature dependence of flow stress. International Journal of Plasticity, 2021, 137, 102896	8.8	40

Curt A Bronkhorst

#	Article	IF	CITATIONS
19	The influence of phase and substructural evolution during dynamic loading on subsequent mechanical properties of zirconium. Acta Materialia, 2013, 61, 7712-7719.	7.9	38
20	Influence of boundary structure and near neighbor crystallographic orientation on the dynamic damage evolution during shock loading. Philosophical Magazine, 2013, 93, 833-846.	1.6	35
21	Microstructural examination of quasi-static and dynamic shear in high-purity iron. International Journal of Plasticity, 2013, 40, 23-38.	8.8	34
22	Anomalous plasticity of body-centered-cubic crystals with non-Schmid effect. International Journal of Solids and Structures, 2018, 139-140, 138-149.	2.7	33
23	Simultaneous heat and mass transport in paper sheets during moisture sorption from humid air. International Journal of Heat and Mass Transfer, 2003, 46, 2875-2886.	4.8	32
24	An improved isotropic—kinematic hardening model for moderate deformation metal plasticity. Mechanics of Materials, 1990, 10, 127-147.	3.2	30
25	Dislocation subgrain structures and modeling the plastic hardening of metallic single crystals. Modelling and Simulation in Materials Science and Engineering, 2010, 18, 055001.	2.0	30
26	Evaluating the effects of loading parameters on single-crystal slip in tantalum using molecular mechanics. Philosophical Magazine, 2014, 94, 92-116.	1.6	20
27	ESSENTIAL FEATURES OF FINE SCALE BOUNDARY CONDITIONS FOR SECOND GRADIENT MULTISCALE HOMOGENIZATION OF STATISTICAL VOLUME ELEMENTS. International Journal for Multiscale Computational Engineering, 2012, 10, 461-486.	1.2	19
28	Thermomechanical conversion in metals: dislocation plasticity model evaluation of the Taylor-Quinney coefficient. Acta Materialia, 2021, 202, 170-180.	7.9	17
29	The Influence of Grain Interactions on the Plastic Stability of Heterophase Interfaces. Materials, 2014, 7, 302-322.	2.9	16
30	Distribution-enhanced homogenization framework and model for heterogeneous elasto-plastic problems. Journal of the Mechanics and Physics of Solids, 2015, 85, 176-202.	4.8	16
31	Thermodynamic theory of crystal plasticity: Formulation and application to polycrystal fcc copper. Journal of the Mechanics and Physics of Solids, 2020, 138, 103905.	4.8	16
32	Anisotropic thermal-conductivity degradation in the phase-field method accounting for crack directionality. Engineering Fracture Mechanics, 2021, 245, 107554.	4.3	15
33	Meso-Scale Modeling the Orientation and Interface Stability of Cu/Nb-Layered Composites by Rolling. Jom, 2013, 65, 431-442.	1.9	13
34	Incrementally objective implicit integration of hypoelastic–viscoplastic constitutive equations based on the mechanical threshold strength model. Computational Mechanics, 2014, 53, 941-955.	4.0	12
35	The influence of peak shock stress on the high pressure phase transformation in Zr. Journal of Physics: Conference Series, 2014, 500, 032003.	0.4	10
36	Finite element formulation with embedded weak discontinuities for strain localization under dynamic conditions. Computational Mechanics, 2018, 61, 3-18.	4.0	10

Curt A Bronkhorst

#	Article	IF	CITATIONS
37	A single crystal plasticity finite element formulation with embedded deformation twins. Journal of the Mechanics and Physics of Solids, 2019, 133, 103723.	4.8	10
38	Two stochastic mean-field polycrystal plasticity methods. Journal of the Mechanics and Physics of Solids, 2009, 57, 1230-1253.	4.8	9
39	Three-dimensional explicit finite element formulation for shear localization with global tracking of embedded weak discontinuities. Computer Methods in Applied Mechanics and Engineering, 2019, 353, 416-447.	6.6	9
40	A comparative study of shear band tracking strategies in three-dimensional finite elements with embedded weak discontinuities. Finite Elements in Analysis and Design, 2019, 155, 11-31.	3.2	8
41	Effects of grain boundary structure and distribution on the spall response of copper. AIP Conference Proceedings, 2012, , .	0.4	7
42	Influence of shock loading kinetics on the spall response of copper. Journal of Physics: Conference Series, 2014, 500, 112023.	0.4	7
43	First-principles study of theα-ï‰phase transformation in Ti and Zr coupled to slip modes. Journal of Applied Physics, 2018, 123, 045903.	2.5	6
44	Effects of microstructure and shock loading conditions on the damage behavior of polycrystalline copper. EPJ Web of Conferences, 2012, 26, 02008.	0.3	5
45	The influence of peak shock stress on the high pressure phase transformation in zirconium. EPJ Web of Conferences, 2012, 26, 02013.	0.3	5
46	Controlled shock loading conditions for micrstructural correlation of dynamic damage behavior. AIP Conference Proceedings, 2012, , .	0.4	4
47	A comparison of calculated damage from square waves and triangular waves. , 2012, , .		2
48	Characterization of shocked beryllium. Journal of Physics: Conference Series, 2014, 500, 112013.	0.4	2
49	Mesoscale polycrystal calculations of damage in spallation in metals. EPJ Web of Conferences, 2010, 10, 00006.	0.3	1
50	Isolation of kinetic and spatial properties of uni-axial dynamic tensile loading of OFHC copper. EPJ Web of Conferences, 2012, 26, 01040.	0.3	1
51	Integrated Computational Structure-Material Modeling of Deformation and Failure under Extreme Conditions. International Journal of Fracture, 2017, 208, 1-3.	2.2	1
52	Modeling material stress using integrated Gaussian Markov random fields. Journal of Applied Statistics, 2020, 47, 1616-1636.	1.3	1
53	Dynamic shear deformation in high purity iron. , 2009, , .		1