Daniel Weygand

List of Publications by Year
in descending order

27 papers	1,629 citations	430874 18 h-index	552781 26 g-index
27 all docs	27 docs citations	27 times ranked	1102 citing authors

#	Article	IF	Citations
1	Dislocation structure analysis in the strain gradient of torsion loading: a comparison between modelling and experiment. Modelling and Simulation in Materials Science and Engineering, 2022, 30, 035007.	2.0	1
2	Recrystallisation towards a single texture component in heavily cold rolled tungsten (W) sheets and its impact on micromechanics. International Journal of Refractory Metals and Hard Materials, 2020, 86, 105084.	3.8	10
3	Repulsion leads to coupled dislocation motion and extended work hardening in bcc metals. Nature Communications, 2020, 11, 5098.	12.8	26
4	Data-driven exploration and continuum modeling of dislocation networks. Modelling and Simulation in Materials Science and Engineering, 2020, 28, 065001.	2.0	10
5	Aspects on numerical integration of dislocation surface traction fields for discrete dislocation dynamics FEM coupling: the case of emerging dislocations. Modelling and Simulation in Materials Science and Engineering, 2020, 28, 085010.	2.0	3
6	Dislocation multiplication by cross-slip and glissile reaction in a dislocation based continuum formulation of crystal plasticity. Journal of the Mechanics and Physics of Solids, 2019, 132, 103695.	4.8	43
7	Analysis of dislocation microstructure characteristics of surface grains under cyclic loading by discrete dislocation dynamics. Modelling and Simulation in Materials Science and Engineering, 2019, 27, 055004.	2.0	6
8	The brittle-to-ductile transition in cold rolled tungsten plates: Impact of crystallographic texture, grain size and dislocation density on the transition temperature. International Journal of Refractory Metals and Hard Materials, 2019, 78, 146-163.	3.8	34
9	DAMASK â€“ The DÃ¼sseldorf Advanced Material Simulation Kit for modeling multi-physics crystal plasticity, thermal, and damage phenomena from the single crystal up to the component scale. Computational Materials Science, 2019, 158, 420-478.	3.0	440
10	Discrete Dislocation Dynamics simulations of dislocation transport during sliding. Acta Materialia, 2018, 156, 215-227.	7.9	20
11	Dislocation multiplication in stage II deformation of fcc multi-slip single crystals. Journal of the Mechanics and Physics of Solids, 2018, 119, 319-333.	4.8	34
12	Discrete dislocation dynamics study of dislocation microstructure during cyclic loading. , 2018, , 395-416.		1
13	Irreversibility of dislocation motion under cyclic loading due to strainÂgradients. Scripta Materialia, 2017, 129, 69-73.	5.2	14
14	Validation of the applicability of a creep model for directionally solidified eutectics with a lamellar microstructure. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 297-298.	0.2	1
15	Formation of extended prismatic dislocation structures under indentation. Acta Materialia, 2016, 111, 399-406.	7.9	38
16	Multiscale Simulation of Plasticity in bcc Metals. Annual Review of Materials Research, 2015, 45, 369-390.	9.3	18
17	Dislocation multiplication mechanisms â€“ Glissile junctions and their role on the plastic deformation at the microscale. Acta Materialia, 2015, 99, 130-139.	7.9	52
18	Origin of Anomalous Slip in Tungsten. Physical Review Letters, 2014, 113, 025501.	7.8	45

#	Article	IF	Citations
19	Dislocation motion in tungsten: Atomistic input to discrete dislocation simulations. International Journal of Plasticity, 2013, 47, 126-142.	8.8	63
20	Dislocation microstructure evolution in cyclically twisted microsamples: a discrete dislocation dynamics simulation. Modelling and Simulation in Materials Science and Engineering, 2011, 19, 074004.	2.0	34
21	Cyclic response of copper single crystal micro-beams. Scripta Materialia, 2010, 63, 500-503.	5.2	93
22	Atomistic simulation of dislocationâ€“void interactions under cyclic loading. Modelling and Simulation in Materials Science and Engineering, 2010, 18, 025006.	2.0	13
23	Initial dislocation structures in 3-D discrete dislocation dynamics and their influence on microscale plasticity. Acta Materialia, 2009, 57, 1744-1754.	7.9	150
24	Micro-bending tests: A comparison between three-dimensional discrete dislocation dynamics simulations and experiments. Acta Materialia, 2008, 56, 1942-1955.	7.9	131
25	Study of dislocation reactions and rearrangements under different loading conditions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 400-401, 158-161.	5.6	49
26	Aspects of boundary-value problem solutions with three-dimensional dislocation dynamics. Modelling and Simulation in Materials Science and Engineering, 2002, 10, 437-468.	2.0	236
27	Discrete dislocation modeling in three-dimensional confined volumes. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 309-310, 420-424.	5.6	64