

# Dan Mordehai

## List of Publications by Year in descending order

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34  
papers

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citations

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477307

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docs citations

34  
times ranked

875  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Multiple Site Type Nucleation Model and Its Application to the Probabilistic Strength of Pd Nanowires. <i>Metals</i> , 2022, 12, 280.	2.3	3
2	Investigating Nanoscale Contact Using AFM-Based Indentation and Molecular Dynamics Simulations. <i>Metals</i> , 2022, 12, 489.	2.3	1
3	Employing molecular dynamics to shed light on the microstructural origins of the Taylor-Quinney coefficient. <i>Acta Materialia</i> , 2021, 205, 116511.	7.9	27
4	A molecular dynamics-informed probabilistic cross-slip model in discrete dislocation dynamics. <i>Scripta Materialia</i> , 2021, 190, 7-11.	5.2	7
5	A dislocation-based dynamic strength model for tantalum across a large range of strain rates. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	9
6	On the yielding and densification of nanoporous Au nanopillars in molecular dynamics simulations. <i>Computational Materials Science</i> , 2021, 191, 110307.	3.0	4
7	Size-dependent elastic modulus of nanoporous Au nanopillars. <i>Acta Materialia</i> , 2020, 185, 441-452.	7.9	17
8	Relations between material properties and barriers for twin boundary motion in ferroic materials. <i>Acta Materialia</i> , 2019, 180, 24-34.	7.9	0
9	On the origin of the stress spike decay in the elastic precursor in shocked metals. <i>Journal of Applied Physics</i> , 2019, 126, .	2.5	11
10	Cross-slip in face centred cubic metals: a general full stress-field dependent activation energy line-tension model. <i>Philosophical Magazine</i> , 2019, 99, 1460-1480.	1.6	9
11	A multiscale study of the size-effect in nanoindentation of Au nanoparticles. <i>Computational Materials Science</i> , 2019, 162, 47-59.	3.0	13
12	The Stress-Dependent Activation Parameters for Dislocation Nucleation in Molybdenum Nanoparticles. <i>Scientific Reports</i> , 2018, 8, 3915.	3.3	19
13	Shear relaxation behind the shock front in $\alpha$ -Fe. <a href="http://www.w3.org/1998/Math/MathML">http://www.w3.org/1998/Math/MathML</a> altimg= si1.gif overflow="scroll"><math>\alpha\text{-Fe}</math>	3.0	14
14	Cross-slip in face-centered cubic metals: a general Escaig stress-dependent activation energy line tension model. <i>Philosophical Magazine</i> , 2018, 98, 347-370.	1.6	20
15	Nucleation- $\alpha$ Controlled Plasticity of Metallic Nanowires and Nanoparticles. <i>Advanced Materials</i> , 2018, 30, e1706710.	21.0	27
16	Size-dependent coupled longitudinal-transverse vibration of five-fold twinned nanowires. <i>Extreme Mechanics Letters</i> , 2018, 23, 49-54.	4.1	2
17	Annihilation of edge dislocation loops via climb during nanoindentation. <i>Acta Materialia</i> , 2017, 127, 351-358.	7.9	22
18	Atomically Informed Continuum Models for the Elastic Contact Properties of Hollow and Coated Rigid Cylinders at the Nanoscale. <i>Journal of Applied Mechanics</i> , <i>Transactions ASME</i> , 2017, 84, .	2.2	2

#	ARTICLE	IF	CITATIONS
19	Role of dislocation pile-ups in nucleation-controlled size-dependent strength of Fe nanowires. <i>Acta Materialia</i> , 2017, 136, 190-201.	7.9	22
20	Cross-Split of Dislocations: An Athermal and Rapid Plasticity Mechanism. <i>Scientific Reports</i> , 2016, 6, 25966.	3.3	19
21	Climb via vacancy diffusion of edge dislocations in 2D dislocation microstructures. <i>Philosophical Magazine</i> , 2016, 96, 2779-2799.	1.6	3
22	Towards a universal size-dependent strength of face-centered cubic nanoparticles. <i>Acta Materialia</i> , 2016, 103, 433-441.	7.9	35
23	Signature of dislocations and stacking faults of face-centred cubic nanocrystals in coherent X-ray diffraction patterns: a numerical study. <i>Journal of Applied Crystallography</i> , 2015, 48, 621-644.	4.5	38
24	A Percolative Deformation Process Between Nanograins Promotes Dynamic Shear Localization. <i>Materials Research Letters</i> , 2015, 3, 76-81.	8.7	3
25	Dislocation-nucleation-controlled deformation of Ni <sub>3</sub> Al nanocubes in molecular dynamics simulations. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2015, 23, 085004.	2.0	19
26	Depinning-controlled plastic deformation during nanoindentation of BCC iron thin films and nanoparticles. <i>Acta Materialia</i> , 2015, 90, 370-379.	7.9	20
27	Solid–solid interface reconstruction at equilibrated Ni–Al <sub>2</sub> O <sub>3</sub> interfaces. <i>Acta Materialia</i> , 2012, 60, 4359-4369.	7.9	58
28	Pseudoelastic Deformation during Nanoscale Adhesive Contact Formation. <i>Physical Review Letters</i> , 2011, 107, 096101.	7.8	28
29	Enhanced annealing of the dislocation network under irradiation. <i>Physical Review B</i> , 2011, 84, .	3.2	17
30	Effects of focused-ion-beam irradiation and prestraining on the mechanical properties of FCC Au microparticles on a sapphire substrate. <i>Journal of Materials Research</i> , 2011, 26, 1653-1661.	2.6	29
31	Size effect in compression of single-crystal gold microparticles. <i>Acta Materialia</i> , 2011, 59, 5202-5215.	7.9	136
32	Nanoindentation size effect in single-crystal nanoparticles and thin films: A comparative experimental and simulation study. <i>Acta Materialia</i> , 2011, 59, 2309-2321.	7.9	92
33	Annealing of dislocation loops in dislocation dynamics simulations. <i>IOP Conference Series: Materials Science and Engineering</i> , 2009, 3, 012001.	0.6	13
34	Introducing dislocation climb by bulk diffusion in discrete dislocation dynamics. <i>Philosophical Magazine</i> , 2008, 88, 899-925.	1.6	128