

# Ioannis Mastorakos

## List of Publications by Year in descending order

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27  
papers

347  
citations

932766

10  
h-index

839053

18  
g-index

27  
all docs

27  
docs citations

27  
times ranked

369  
citing authors

#	ARTICLE	IF	CITATIONS
1	Deformation mechanisms and strength in nanoscale multilayer metallic composites with coherent and incoherent interfaces. Applied Physics Letters, 2009, 94, .	1.5	76
2	A dislocation-density-based 3D crystal plasticity model for pure aluminum. Acta Materialia, 2009, 57, 5936-5946.	3.8	63
3	Size-dependent strength in nanolaminate metallic systems. Journal of Materials Research, 2011, 26, 1179-1187.	1.2	36
4	The void nucleation strengths of the Cu-Ni-Nb- based nanoscale metallic multilayers under high strain rate tensile loadings. Computational Materials Science, 2014, 82, 435-441.	1.4	21
5	Effect of Interfaces in the Work Hardening of Nanoscale Multilayer Metallic Composites During Nanoindentation: A Molecular Dynamics Investigation. Journal of Engineering Materials and Technology, Transactions of the ASME, 2013, 135, .	0.8	19
6	Precipitate strengthening in nanostructured metallic material composites. Philosophical Magazine Letters, 2012, 92, 597-607.	0.5	17
7	Numerical simulation of interface crack in thin films. International Journal of Fracture, 1999, 98, 195-207.	1.1	16
8	A mechanistic-based healing model for self-healing glass seals used in solid oxide fuel cells. Journal of Power Sources, 2012, 218, 445-454.	4.0	15
9	Strength and plastic deformation behavior of nanolaminate composites with pre-existing dislocations. Computational Materials Science, 2017, 138, 42-48.	1.4	13
10	The effect of interfacial imperfections on plastic deformation in nanoscale metallic multilayer composites. Computational Materials Science, 2014, 86, 118-123.	1.4	10
11	A multiscale approach to study the effect of chromium and nickel concentration in the hardening of iron alloys. Journal of Nuclear Materials, 2014, 449, 101-110.	1.3	9
12	Multiscale modeling of copper and copper/nickel nanofoams under compression. Computational Materials Science, 2020, 172, 109290.	1.4	9
13	Effects of Defects on Hydrogen Diffusion in NbC. Applied Surface Science, 2017, 401, 198-205.	3.1	7
14	Deformation behavior of core-shell nanowire structures with coherent and semi-coherent interfaces. Journal of Materials Research, 2019, 34, 1093-1102.	1.2	6
15	Synthesis, microstructure, and mechanical properties of polycrystalline Cu nano-foam. MRS Advances, 2018, 3, 469-475.	0.5	5
16	Plastic Behavior of Aluminum and Dislocation Patterning Based on Continuum Dislocation Dynamic (CDD). Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 400-409.	1.1	5
17	Investigation of dislocation patterning by stochastic integration of dislocation trajectories. Modelling and Simulation in Materials Science and Engineering, 2005, 13, 671-681.	0.8	4
18	The effect of size and composition on the strength and hardening of Cu-Ni/Nb nanoscale metallic composites. Journal of Materials Research, 2017, 32, 2542-2550.	1.2	4

#	ARTICLE	IF	CITATIONS
19	Modelling crushing crab predation on bivalve prey using finite element analysis. <i>Historical Biology</i> , 2019, , 1-10.	0.7	3
20	Computer Simulation of Discrete Crack Propagation. <i>Journal of the Mechanical Behavior of Materials</i> , 2003, 14, 9-22.	0.7	2
21	Two- and Three-Dimensional EBSD Measurement of Dislocation Density in Deformed Structures. <i>Solid State Phenomena</i> , 2010, 160, 17-22.	0.3	2
22	Phase Field Crystal Simulation of Grain Growth in BCC Metals during Additive Manufacturing. <i>MRS Advances</i> , 2017, 2, 887-896.	0.5	2
23	A Multiscale Simulation Approach for the Mechanical Response of Copper/Nickel Nanofoams With Experimental Validation. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2022, 144, .	0.8	2
24	A Multiscale Approach to Predict the Mechanical Properties of Copper Nanofoams. <i>MRS Advances</i> , 2019, 4, 293-298.	0.5	1
25	Development of a 3D Crystal Plasticity Model that Tracks Dislocation Density Evolution. <i>Solid State Phenomena</i> , 2010, 160, 57-62.	0.3	0
26	Correlation between complexity and mechanical recovery of metallic nanoarchitecture structures. <i>MRS Communications</i> , 2021, 11, 510-516.	0.8	0
27	Composition influence on edge dislocation mobility in an FCC high-entropy alloy. <i>MRS Advances</i> , 0, , 1.	0.5	0