Diana Farkas

List of Publications by Citations

77 papers	1,983 citations	27 h-index	42 g-index
77 ext. papers	2,256 ext. citations	4.3 avg, IF	5.53 L-index

#	Paper	IF	Citations
77	Grain boundary migration during room temperature deformation of nanocrystalline Ni. *Scripta Materialia*, **2006**, 55, 695-698	5.6	134
76	Mechanical response of nanoporous gold. *Acta Materialia*, **2013**, 61, 3249-3256	8.4	114
75	Molecular statics simulation of fracture in -iron. *Modelling and Simulation in Materials Science and Engineering*, **1996**, 4, 473-492	2	93
74	Mechanical stability of nanoporous metals with small ligament sizes. *Scripta Materialia*, **2009**, 61, 497-499	3.6	88
73	Atomistic simulations in the Fe system. *Computational Materials Science*, **2009**, 45, 550-560	3.2	86
72	Atomistic simulation of point defects and diffusion in B2 NiAl. *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **1997**, 75, 169-185		82
71	Model interatomic potentials and lattice strain in a high-entropy alloy. *Journal of Materials Research* , **2018**, 33, 3218-3225	2.5	81
70	Size effects in indentation response of thin films at the nanoscale: A molecular dynamics study. *International Journal of Plasticity*, **2008**, 24, 2016-2031	7.6	73
69	Strain-driven grain boundary motion in nanocrystalline materials. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 493, 33-40	5.3	61
68	Plastic deformation mechanisms in nanocrystalline columnar grain structures. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 412, 316-322	5.3	61
67	An atomistic investigation of elastic and plastic properties of Au nanowires. *Jom*, **2005**, 57, 62-66	2.1	59
66	Mechanical response of nanoporous metals: A story of size, surface stress, and severed struts. *MRS Bulletin*, **2018**, 43, 35-42	3.2	56
65	Linear grain growth kinetics and rotation in nanocrystalline Ni. *Physical Review Letters*, **2007**, 98, 165502	7.4	56
64	Atomistic simulations of metallic microstructures. *Current Opinion in Solid State and Materials Science*, **2013**, 17, 284-297	12	52
63	Strain-induced grain growth and rotation in nickel nanowires. *Physical Review B*, **2007**, 75,	3.3	49
62	Atomistic simulation of point defects and diffusion in B2 NiAl. *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **1997**, 75, 187-199		44
61	Hardening under compression in Au foams. *Acta Materialia*, **2016**, 108, 1-7	8.4	42

60	Fivefold twin formation during annealing of nanocrystalline Cu. *Scripta Materialia*, **2008**, 59, 1267-1270	5.6	39
59	Crack-Tip Deformation Mechanisms in □Fe and Binary Fe Alloys: An Atomistic Study on Single Crystals. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2007**, 38, 2191-2202	2.3	37
58	Micromechanics of dislocation channeling in intergranular stress corrosion crack nucleation. *Current Opinion in Solid State and Materials Science*, **2012**, 16, 134-142	12	35
57	Atomistic simulation of [001] symmetrical tilt grain boundaries in NiAl. *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **1998**, 78, 29-56		32
56	Annealing twins in nanocrystalline fcc metals: A molecular dynamics simulation. *Physical Review B*, **2007**, 75,	3.3	31
55	Atomistic theory and computer simulation of grain boundary structure and diffusion. *Journal of Physics Condensed Matter*, **2000**, 12, R497-R516	1.8	31
54	The role of partial grain boundary dislocations in grain boundary sliding and coupled grain boundary motion. *Journal of Materials Science*, **2006**, 41, 7741-7746	4.3	30
53	Atomistic studies of hydrogen effects on grain boundary structure and deformation response in FCC Ni. *Computational Materials Science*, **2016**, 122, 92-101	3.2	30
52	Interatomic potentials for ternary Nb - Ti - Al alloys. *Modelling and Simulation in Materials Science and Engineering*, **1996**, 4, 23-32	2	29
51	Improving the ductility of nanocrystalline bcc metals. *Nano Letters*, **2005**, 5, 2403-7	11.5	28
50	Tensile deformation of fcc Ni as described by an EAM potential. *Philosophical Magazine*, **2009**, 89, 3435-3450	1.6	24
49	Atomistic structure and lattice effects of vacancies in Ni-Al intermetallics. *Journal of Materials Research*, **1994**, 9, 875-883	2.5	24
48	The role of confinement on stress-driven grain boundary motion in nanocrystalline aluminum thin films. *Journal of Applied Physics*, **2012**, 112, 124313	2.5	22
47	Molecular dynamics study of deformation and fracture in a tantalum nano-crystalline thin film. *Modelling and Simulation in Materials Science and Engineering*, **2014**, 22, 045010	2	21
46	Non-planar grain boundary structures in fcc metals and their role in nano-scale deformation mechanisms. *Philosophical Magazine*, **2014**, 94, 152-173	1.6	21
45	Atomistic simulation of dislocation core configurations in TiAl. *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **1998**, 78, 389-404		21
44	Bulk and intergranular fracture behaviour of NiAl. *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **2000**, 80, 1425-1444		20
43	Deformation mechanisms and scaling relations in the mechanical response of nano-porous Au. *Acta Materialia*, **2019**, 165, 626-637	8.4	20

42	Atomistic modeling of dislocations in a random quinary high-entropy alloy. *Computational Materials Science*, **2020**, 173, 109366	3.2	17
41	Mechanical Response of Au Foams of Varying Porosity from Atomistic Simulations. *Jom*, **2018**, 70, 2185-2191	2.1	16
40	Nanoindentation of thin films: Simulations and experiments. *Journal of Materials Research*, **2009**, 24, 1135-1141	2.5	16
39	Connecting interatomic potential characteristics with deformation response in FCC materials. *Computational Materials Science*, **2018**, 147, 18-27	3.2	15
38	Molecular Statics Simulation of Crack Propagation in □Fe Using EAM Potentials. *Materials Research Society Symposia Proceedings*, **1995**, 409, 75		14
37	Dislocations in Grain Boundary Regions: The Origin of Heterogeneous Microstrains in Nanocrystalline Materials. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2020**, 51, 513-530	2.3	14
36	Model interatomic potentials for Fe□NiCrCoAl high-entropy alloys. *Journal of Materials Research*, **2020**, 35, 3031-3040	2.5	14
35	Grain boundary structure in high-entropy alloys. *Journal of Materials Science*, **2020**, 55, 9173-9183	4.3	12
34	Monte Carlo simulation of correlation effects in a random bcc alloy. *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **1997**, 75, 201-219		11
33	Indentation response of nanoporous gold from atomistic simulations. *Journal of Materials Research*, **2018**, 33, 1382-1390	2.5	10
32	Atomistic simulation of fracture in TiAl. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1998**, 29, 951-955	2.3	10
31	Stress Localization Resulting from Grain Boundary Dislocation Interactions in Relaxed and Defective Grain Boundaries. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2020**, 51, 667-683	2.3	10
30	Fracture in nanoporous gold: An integrated computational and experimental study. *Acta Materialia*, **2020**, 185, 257-270	8.4	10
29	Deformation response of grain boundary networks at high temperature. *Journal of Materials Science*, **2018**, 53, 5696-5705	4.3	10
28	Mechanical response of a bicontinuous copper□molybdenum nano-composite: Experiments and simulations. *Acta Materialia*, **2019**, 178, 79-89	8.4	9
27	Stoichiometry effects on core structure and mobility in B2 NiAl. *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **1995**, 72, 1671-1696		8
26	Dislocation content in random high angle grain boundaries. *Modelling and Simulation in Materials Science and Engineering*, **2019**, 27, 045005	2	7
25	Simple Flexible Boundary if Conditions for the Atomistic Simulation of Dislocation Core Structure and Motion. *Materials Research Society Symposia Proceedings*, **1992**, 291, 85		7

24	Atomistic Simulation of Dislocation Motion as Determined by Core Structure. *Materials Research Society Symposia Proceedings*, **1994**, 350, 293		5
23	Deformation behavior of a model high entropy alloy from atomistic simulations. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 812, 141124	5.3	5
22	Effects of Microalloying on the Mobility and Mechanical Response of Interfaces in Nanocrystalline Cu. *Materials Science Forum*, **2009**, 633-634, 21-30	0.4	4
21	Atomistic simulation of grain boundary diffusion mechanisms in B2 NiAl. *Intermetallics*, **2004**, 12, 937-943	3.5	4
20	Atomistic Simulation of Dislocation Interactions with a Σ 5 (210) Grain Boundary during Nanoindentation of Ni. *Materials Research Society Symposia Proceedings*, **2004**, 821, 258		4
19	The Mechanical Response of Nanoporous Gold and Silver Foams with Varying Composition and Surface Segregation. *Acta Materialia*, **2021**, 203, 116445	8.4	4
18	Atomistic simulation of fracture in TiAl. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1998**, 29, 951-955	2.3	3
17	Effects of Angular Dependent Terms in the Interatomic Potential on Defect Properties in TiAl. *Materials Research Society Symposia Proceedings*, **1994**, 364, 151		3
16	Atomistic Study of Crack Propagation and Dislocation Emission in Cu-Ni Multilayers. *Materials Research Society Symposia Proceedings*, **1996**, 457, 315		2
15	Atomistic Simulation of Grain Boundary Structure and Diffusion in B2 NiAl. *Materials Research Society Symposia Proceedings*, **1996**, 458, 21		2
14	Representation of Finite Cracks by Dislocation Pileups: An Application to Atomic Simulation of Fracture. *Materials Research Society Symposia Proceedings*, **1995**, 409, 133		2
13	Bulk and intergranular fracture behaviour of NiAl		2
12	Atomistic simulation of dislocation core configurations in TiAl		2
11	Varying Diffusion Kinetics Along Random Grain Boundaries in a Model Austenitic Stainless Steel. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2021**, 52, 1117-1126	2.3	2
10	Representation of Finite Cracks by Dislocation Pileups: An Application to Atomic Simulation of Fracture. *Materials Research Society Symposia Proceedings*, **1995**, 408, 217		1
9	Structure and Energetics of Vacancies, Antisites and Divacancy Complexes in the Ni-Al System. *Materials Research Society Symposia Proceedings*, **1992**, 288, 305		1
8	Deformation response of high entropy alloy nanowires. *Journal of Materials Science*, **2021**, 56, 16447-16463	4.3	1
7	Possibilities of Slip Modification in B2 NiAl. *Materials Research Society Symposia Proceedings*, **1992**, 288, 435		0

6	Dislocation emission and propagation under a nano-indenter in a model high entropy alloy. *Computational Materials Science*, **2022**, 205, 111218	3.2	0
5	Influence of compositional complexity on species diffusion behavior in high-entropy solid-solution alloys. *Journal of Materials Research*,1	2.5	0
4	Dr Eduardo Savino (1945–1998). *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **2000**, 80, 1297-1298		
3	Atomistic Structure of High Index Surfaces. *Materials Research Society Symposia Proceedings*, **1996**, 440, 39		
2	Atomistic Aspects of Crack Propagation Along High Angle Grain Boundaries. *Materials Research Society Symposia Proceedings*, **1996**, 460, 399		
1	Multiscale modeling of deformation and fracture in metallic materials **2007**, 369-390		