Ilaksh Adlakha

List of Publications by Year
in descending order

22	359	687363 13	794594 19
papers	citations	h-index	g-index

23	23	23	366
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Anomalous mechanical behavior of nanocrystalline binary alloys under extreme conditions. Nature Communications, 2018, 9, 2699.	12.8	50
2	Revealing the atomistic nature of dislocation-precipitate interactions in Al-Cu alloys. Journal of Alloys and Compounds, 2019, 797, 325-333.	5.5	33
3	The role of grain boundary structure and crystal orientation on crack growth asymmetry in aluminum. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 618, 345-354.	5.6	26
4	Atomic scale investigation of grain boundary structure role on intergranular deformation in aluminium. Philosophical Magazine, 2014, 94, 3445-3466.	1.6	25
5	Effect of mechanical loading on the galvanic corrosion behavior of a magnesium-steel structural joint. Corrosion Science, 2018, 133, 300-309.	6.6	24
6	Thermo-mechanical strengthening mechanisms in a stable nanocrystalline binary alloy â€“ A combined experimental and modeling study. Materials and Design, 2019, 163, 107551.	7.0	23
7	Atomic-scale investigation of triple junction role on defects binding energetics and structural stability in Î±-Fe. Acta Materialia, 2016, 118, 64-76.	7.9	21
8	Effect of solutes on ideal shear resistance and electronic properties of magnesium: A first-principles study. Acta Materialia, 2018, 153, 327-335.	7.9	21
9	Critical assessment of hydrogen effects on the slip transmission across grain boundaries in Î± -Fe. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20150617.	2.1	20
10	Revealing the role of nitrogen on hydride nucleation and stability in pure niobium using first-principles calculations. Superconductor Science and Technology, 2018, 31, 115007.	3.5	19
11	Structural stability and energetics of grain boundary triple junctions in face centered cubic materials. Scientific Reports, 2015, 5, 8692.	3.3	18
12	Role of hydrogen on the incipient crack tip deformation behavior in Î±-Fe: An atomistic perspective. Journal of Applied Physics, 2018, 123, .	2.5	18
13	Generalized stacking fault energies and slip in Î²-tin. Scripta Materialia, 2016, 123, 21-25.	5.2	17
14	Effect of hydrogen on the ideal shear strength in metals and its implications on plasticity: A first-principles study. International Journal of Hydrogen Energy, 2021, 46, 25726-25737.	7.1	9
15	Discrete dislocation modeling of stress corrosion cracking in an iron. Corrosion Reviews, 2015, 33, 467-475.	2.0	7
16	Dislocation core properties ofÎ²-tin: a first-principles study. Modelling and Simulation in Materials Science and Engineering, 2017, 25, 025014.	2.0	7
17	Role of Static and Cyclic Deformation on the Corrosion Behavior of a Magnesium-Steel Structural Joint. Jom, 2017, 69, 2328-2334.	1.9	7
18	Energetics of Hydrogen Segregation to Î±-Fe Grain Boundaries for Modeling Stress Corrosion Cracking. Jom, 2017, 69, 1398-1403.	1.9	6

#	Article	IF	Citations
19	Surface reconstruction in core@shell nanoalloys: interplay between size and strain. Acta Materialia, 2022, , 118038.	7.9	4
20	Analysis of the Crack Initiation and Growth in Crystalline Materials Using Discrete Dislocations and the Modified Kitagawaâ€“Takahashi Diagram. Crystals, 2020, 10, 358.	2.2	3
21	Crystal Elasticity Simulations of Polycrystalline Material Using Rank-One Approximation. Integrating Materials and Manufacturing Innovation, 2022, 11, 139-157.	2.6	1
22	First-Principles Investigation of the Effect of Solutes on the Ideal Shear Resistance and Electronic Properties of Magnesium. Minerals, Metals and Materials Series, 2019, , 231-237.	0.4	0