Keonwook Kang

List of Publications by Year
in descending order

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52 papers	2,285 citations	279701 23 h-index	214721 47 g-index
52 all docs	52 docs citations	52 times ranked	2152 citing authors

#	Article	IF	Citations
1	Highly Dispersed Pt Clusters on F-Doped Tin(IV) Oxide Aerogel Matrix: An Ultra-Robust Hybrid Catalyst for Enhanced Hydrogen Evolution. ACS Nano, 2022, 16, 1625-1638.	7.3	48
2	Failure diagnosis system using a new nonlinear mapping augmentation approach for deep learning algorithm. Mechanical Systems and Signal Processing, 2022, 172, 108914.	4.4	10
3	Ultralow dielectric cross-linked silica aerogel nanocomposite films for interconnect technology. Applied Materials Today, 2022, 28, 101536.	2.3	11
4	Dipole-assisted carrier transport in bis(trifluoromethane) sulfonamide-treated O-ReS2 field-effect transistor. Nano Research, 2021, 14, 2207-2214.	5.8	2
5	Density functional theory study of the mechanical behavior of silicene and development of a Tersoff interatomic potential model tailored for elastic behavior. Nanotechnology, 2021, 32, 295702.	1.3	10
6	The lattice dislocation trapping mechanism at the ferrite/cementite interface in the Isaichev orientation relationship. Scientific Reports, 2021, 11, 9324.	1.6	2
7	Defectâ€Engineered nâ€Doping of WSe₂ via Argon Plasma Treatment and Its Application in Fieldâ€Effect Transistors. Advanced Materials Interfaces, 2021, 8, 2100718.	1.9	18
8	Structural Analysis of silica aerogels for the interlayer dielectric in semiconductor devices. Ceramics International, 2021, 47, 29722-29729.	2.3	9
9	Reduced interstitial mobility through multicomponent alloying in bcc W. Fusion Engineering and Design, 2021, 172, 112745.	1.0	0
10	Relativistic effect inducing drag on fast-moving dislocation in discrete system. International Journal of Plasticity, 2020, 126, 102629.	4.1	15
11	The effect of the misfit dislocation on the in-plane shear response of the ferrite/cementite interface. Computational Materials Science, 2020, 173, 109375.	1.4	9
12	Dynamic drags acting on moving defects in discrete dispersive media: From dislocation to low-angle grain boundary. Journal of the Mechanics and Physics of Solids, 2020, 145, 104166.	2.3	7
13	Gravitational Effect on the Advancing and Receding Angles of a Two-Dimensional Cassieâ€“Baxter Droplet on a Textured Surface. Langmuir, 2020, 36, 6061-6069.	1.6	3
14	Machine learning-based prediction models for formation energies of interstitial atoms in HCP crystals. Scripta Materialia, 2020, 183, 1-5.	2.6	12
15	Free-surface effect on displacement cascades in BCC W: molecular dynamics study. Nuclear Fusion, 2020, 60, 126009.	1.6	3
16	High-energy proton irradiation damage on two-dimensional hexagonal boron nitride. RSC Advances, 2019, 9, 18326-18332.	1.7	2
17	Atomistic modelling of the hypervelocity dynamics of shock-compressed graphite and impacted graphene armours. Computational Materials Science, 2019, 170, 109152.	1.4	7
18	Ab initio study of H, B, C, N, O, and self-interstitial atoms in hcp-Zr. Journal of Alloys and Compounds, 2019, 787, 631-637.	2.8	11

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19	Molecular Dynamics Simulation Study on the Effect of the Loading Direction on the Deformation Mechanism of Pearlite. Multiscale Science and Engineering, 2019, 1, 47-55.	0.9	12
20	Carrier Transport Properties of MoS2 Asymmetric Gas Sensor Under Charge Transfer-Based Barrier Modulation. Nanoscale Research Letters, 2018, 13, 265.	3.1	6
21	Molecular dynamics study of Hugoniot relation in shocked nickel single crystal. Journal of Mechanical Science and Technology, 2018, 32, 3273-3281.	0.7	10
22	Carrier scattering in quasi-free standing graphene on hexagonal boron nitride. Nanoscale, 2017, 9, 15934-15944.	2.8	7
23	Contact Effect of ReS₂/Metal Interface. ACS Applied Materials & Interfaces, 2017, 9, 26325-26332.	4.0	50
24	Topologically optimized shape of CFRP front lower control ARM. International Journal of Automotive Technology, 2017, 18, 625-630.	0.7	8
25	Characterization of the misfit dislocations at the ferrite/cementite interface in pearlitic steel: An atomistic simulation study. International Journal of Plasticity, 2016, 83, 302-312.	4.1	39
26	Microneedle-based minimally-invasive measurement of puncture resistance and fracture toughness of sclera. Acta Biomaterialia, 2016, 44, 286-294.	4.1	16
27	Nanoindentation study of cementite size and temperature effects in nanocomposite pearlite: A molecular dynamics simulation. Current Applied Physics, 2016, 16, 1015-1025.	1.1	19
28	Phonon scattering during dislocation motion inducing stress-drop in cubic metals. Acta Materialia, 2016, 115, 143-154.	3.8	9
29	A Strainâ€Regulated, Refillable Elastic Patch for Controlled Release. Advanced Materials Interfaces, 2016, 3, 1500803.	1.9	26
30	Molecular dynamics simulation study of the effect of temperature and grain size on the deformation behavior of polycrystalline cementite. Scripta Materialia, 2015, 95, 23-26.	2.6	25
31	Polarization characteristics of semipolar (112Ì„2) InGaN/GaN quantum well structures grown on relaxed InGaN buffer layers and comparison with experiment. Optics Express, 2014, 22, 14850.	1.7	8
32	Effects of crystal orientation on the optical gain characteristics of blue AlInGaN/InGaN quantum-well structures. Journal of the Korean Physical Society, 2014, 65, 457-461.	0.3	0
33	Stress dependence of cross slip energy barrier for face-centered cubic nickel. Journal of the Mechanics and Physics of Solids, 2014, 62, 181-193.	2.3	62
34	Interface-driven microstructure development and ultra high strength of bulk nanostructured Cu-Nb multilayers fabricated by severe plastic deformation. Journal of Materials Research, 2013, 28, 1799-1812.	1.2	142
35	Effect of grain boundary structure on plastic deformation during shock compression using molecular dynamics. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 015011.	0.8	34
36	High-strength and thermally stable bulk nanolayered composites due to twin-induced interfaces. Nature Communications, 2013, 4, 1696.	5.8	298

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37	Twinnability of bimetal interfaces in nanostructured composites. Materials Research Letters, 2013, 1, 89-95.	4.1	65
38	Singular orientations and faceted motion of dislocations in body-centered cubic crystals. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15174-15178.	3.3	80
39	Structureâ€“Propertyâ€“Functionality of Bimetal Interfaces. Jom, 2012, 64, 1192-1207.	0.9	140
40	Minimum energy structures of faceted, incoherent interfaces. Journal of Applied Physics, 2012, 112, .	1.1	46
41	Atomic structure variations of mechanically stable fcc-bcc interfaces. Journal of Applied Physics, 2012, 111, .	1.1	74
42	Structure and Property of Interfaces in ARB Cu/Nb Laminated Composites. Jom, 2012, 64, 1208-1217.	0.9	63
43	Polycrystalline iron under compression: Plasticity and phase transitions. Physical Review B, 2012, 86, .	1.1	96
44	Nucleationâ€Controlled Distributed Plasticity in Pentaâ€twinned Silver Nanowires. Small, 2012, 8, 2986-2993.	5.2	101
45	Atomistic simulations and continuum modeling of dislocation nucleation and strength in gold nanowires. Journal of the Mechanics and Physics of Solids, 2012, 60, 84-103.	2.3	107
46	Energy barrier for homogeneous dislocation nucleation: Comparing atomistic and continuum models. Scripta Materialia, 2011, 64, 1043-1046.	2.6	86
47	Entropic effect on the rate of dislocation nucleation. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5174-5178.	3.3	117
48	Predicting the dislocation nucleation rate as a function of temperature and stress. Journal of Materials Research, 2011, 26, 2335-2354.	1.2	71
49	Size and temperature effects on the fracture mechanisms of silicon nanowires: Molecular dynamics simulations. International Journal of Plasticity, 2010, 26, 1387-1401.	4.1	129
50	Brittle and ductile fracture of semiconductor nanowiresâ€‰â€“â€‰molecular dynamics simulations. Philosophical Magazine, 2007, 87, 2169-2189.	0.7	136
51	Geometric aspects of the ideal shear resistance in simple crystal lattices. Philosophical Magazine, 2006, 86, 3847-3859.	0.7	13
52	Dynamical systems in pin mixers of single-screw extruders. AICHE Journal, 2004, 50, 1372-1385.	1.8	11