Xiaoyi Liu

List of Publications by Year
in descending order

27 papers	643 citations	623734 14 h-index	580821 25 g-index
27 all docs	27 docs citations	27 times ranked	892 citing authors

#	Article	IF	Citations
1	Opening the band gap of graphene through silicon doping for the improved performance of graphene/GaAs heterojunction solar cells. Nanoscale, 2016, 8, 226-232.	5.6	92
2	Quasi-Two-Dimensional SiC and SiC₂: Interaction of Silicon and Carbon at Atomic Thin Lattice Plane. Journal of Physical Chemistry C, 2015, 119, 19772-19779.	3.1	87
3	Interfacial strengthening and self-healing effect in graphene-copper nanolayered composites under shear deformation. Carbon, 2016, 107, 680-688.	10.3	83
4	Strengthening metal nanolaminates under shock compression through dual effect of strong and weak graphene interface. Applied Physics Letters, 2014, 104, .	3.3	65
5	Novel Polygonal Vanadium Oxide Nanoscrolls as Stable Cathode for Lithium Storage. Advanced Functional Materials, 2015, 25, 1773-1779.	14.9	54
6	Super-elasticity and deformation mechanism of three-dimensional pillared graphene network structures. Carbon, 2017, 118, 588-596.	10.3	36
7	Defecting controllability of bombarding graphene with different energetic atoms via reactive force field model. Journal of Applied Physics, 2013, 114, 054313.	2.5	25
8	Anisotropic growth of buckling-driven wrinkles in graphene monolayer. Nanotechnology, 2015, 26, 065701.	2.6	23
9	Effects of temperature and grain size on deformation of polycrystalline copperâ€“graphene nanolayered composites. Physical Chemistry Chemical Physics, 2020, 22, 4741-4748.	2.8	23
10	Anomalous twisting strength of tilt grain boundaries in armchair graphene nanoribbons. Physical Chemistry Chemical Physics, 2015, 17, 31911-31916.	2.8	17
11	Interfacial anti-fatigue effect in grapheneâ€“copper nanolayered composites under cyclic shear loading. Physical Chemistry Chemical Physics, 2018, 20, 7875-7884.	2.8	16
12	Anisotropic propagation and upper frequency limitation of terahertz waves in graphene. Applied Physics Letters, 2013, 103, .	3.3	15
13	Deformation of high density polyethylene by dynamic equal-channel-angular pressing. RSC Advances, 2018, 8, 22583-22591.	3.6	15
14	Competing roles of interfaces and matrix grain size in the deformation and failure of polycrystalline Cuâ€“graphene nanolayered composites under shear loading. Physical Chemistry Chemical Physics, 2018, 20, 23694-23701.	2.8	15
15	Radiation damage in gallium-stabilized Î´-plutonium with helium bubbles. Journal of Nuclear Materials, 2017, 484, 7-15.	2.7	11
16	Tuning electromechanics of dynamic ripple pattern in graphene monolayer. Carbon, 2016, 98, 510-518.	10.3	10
17	Interfacial effect on deformation and failure of Al/Cu nanolaminates under shear loading. Journal Physics D: Applied Physics, 2018, 51, 335301.	2.8	10
18	Unusually high flexibility of grapheneâ€“Cu nanolayered composites under bending. Physical Chemistry Chemical Physics, 2019, 21, 17393-17399.	2.8	9

#	Article	IF	Citations
19	Transformation between divacancy defects induced by an energy pulse in graphene. Nanotechnology, 2016, 27, 274004.	2.6	6
20	Elasticâ€“plastic properties of graphene engineered by oxygen functional groups. Journal Physics D: Applied Physics, 2017, 50, 385305.	2.8	6
21	Theoretical analysis of high strength and anti-buckling of three-dimensional carbon honeycombs under shear loading. Composites Part B: Engineering, 2021, 219, 108967.	12.0	6
22	Crack propagation in graphene monolayer under tear loading. Physical Chemistry Chemical Physics, 2019, 21, 2659-2664.	2.8	5
23	Nanomechanics of Graphene and Design of Graphene Composites. Springer Theses, 2019, , .	0.1	5
24	Mesoscopic numerical computation model of air-diffusion electrode of metal/air batteries. Applied Mathematics and Mechanics (English Edition), 2013, 34, 571-576.	3.6	4
25	Grain size effects on dynamic fracture instability in polycrystalline graphene under tear loading. Journal of Materials Research, 2019, 34, 2209-2217.	2.6	4
26	Tunable Poissonâ€™s ratio and tension-compression asymmetry of graphene-copper nanolayered composites. Journal Physics D: Applied Physics, 2021, 54, 165303.	2.8	1
27	Energy Storage: Novel Polygonal Vanadium Oxide Nanoscrolls as Stable Cathode for Lithium Storage (Adv. Funct. Mater. 12/2015). Advanced Functional Materials, 2015, 25, 1766-1766.	14.9	0