

# Zhendong Sha

## List of Publications by Citations

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73  
papers

2,636  
citations

26  
h-index

50  
g-index

75  
ext. papers

2,925  
ext. citations

4.8  
avg, IF

5.19  
L-index

#	Paper	IF	Citations
73	Mechanism of ferromagnetism in nitrogen-doped ZnO: First-principle calculations. <i>Physical Review B</i> , <b>2008</b> , 78,	3.3	254
72	Perfect spin-filter and spin-valve in carbon atomic chains. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 042104	3.4	162
71	A theoretical analysis of the thermal conductivity of hydrogenated graphene. <i>Carbon</i> , <b>2011</b> , 49, 4752-4758.	10.4	152
70	The effect of Stone-Wales defects on mechanical properties of graphene sheets: A molecular dynamics study. <i>Carbon</i> , <b>2014</b> , 75, 124-132	10.4	128
69	Structure and photoluminescence properties of Fe-doped ZnO thin films. <i>Journal Physics D: Applied Physics</i> , <b>2006</b> , 39, 4762-4765	3	122
68	Effects of edge passivation by hydrogen on electronic structure of armchair graphene nanoribbon and band gap engineering. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 122111	3.4	100
67	Effects of grain size, temperature and strain rate on the mechanical properties of polycrystalline graphene: A molecular dynamics study. <i>Carbon</i> , <b>2015</b> , 85, 135-146	10.4	96
66	A transition from localized shear banding to homogeneous superplastic flow in nanoglass. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 211905	3.4	93
65	Mechanical properties and fracture behavior of single-layer phosphorene at finite temperatures. <i>Journal Physics D: Applied Physics</i> , <b>2015</b> , 48, 395303	3	86
64	Carbon isotope doping induced interfacial thermal resistance and thermal rectification in graphene. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 101901	3.4	73
63	Statistical composition-structure-property correlation and glass-forming ability based on the full icosahedra in Cu <sub>47</sub> Zr metallic glasses. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 061903	3.4	72
62	Cyclic Deformation in Metallic Glasses. <i>Nano Letters</i> , <b>2015</b> , 15, 7010-5	11.5	67
61	Inverse pseudo Hall-Petch relation in polycrystalline graphene. <i>Scientific Reports</i> , <b>2014</b> , 4, 5991	4.9	67
60	Strong and ductile nanolaminate composites combining metallic glasses and nanoglasses. <i>International Journal of Plasticity</i> , <b>2017</b> , 90, 231-241	7.6	61
59	Necking and notch strengthening in metallic glass with symmetric sharp-and-deep notches. <i>Scientific Reports</i> , <b>2015</b> , 5, 10797	4.9	56
58	Metallic glass-based chiral nanolattice: Light weight, auxeticity, and superior mechanical properties. <i>Materials Today</i> , <b>2017</b> , 20, 569-576	21.8	56
57	Atomistic origin of size effects in fatigue behavior of metallic glasses. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2017</b> , 104, 84-95	5	52

56	On the failure load and mechanism of polycrystalline graphene by nanoindentation. <i>Scientific Reports</i> , <b>2014</b> , 4, 7437	4.9	48
55	Structure and photoluminescence properties of SiC films synthesized by the RF-magnetron sputtering technique. <i>Vacuum</i> , <b>2005</b> , 79, 250-254	3.7	45
54	Atomic vacancies significantly degrade the mechanical properties of phosphorene. <i>Nanotechnology</i> , <b>2016</b> , 27, 315704	3.4	44
53	Hydrogenated Grain Boundaries Control the Strength and Ductility of Polycrystalline Graphene. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 13769-13774	3.8	39
52	Glass forming abilities of binary Cu <sub>100-x</sub> Zr <sub>x</sub> (34, 35.5, and 38.2 at. %) metallic glasses: A LAMMPS study. <i>Journal of Applied Physics</i> , <b>2009</b> , 105, 043521	2.5	39
51	A modified Tersoff potential for pure and hydrogenated diamond-like carbon. <i>Computational Materials Science</i> , <b>2013</b> , 67, 146-150	3.2	37
50	Is the failure of large-area polycrystalline graphene notch sensitive or insensitive?. <i>Carbon</i> , <b>2014</b> , 72, 200-206	10.4	36
49	The basic polyhedral clusters, the optimum glass formers, and the composition-structure-property (glass-forming ability) correlation in Cu <sub>2</sub> Zr metallic glasses. <i>Journal of Applied Physics</i> , <b>2010</b> , 107, 063508	2.5	35
48	Strong and superplastic nanoglass. <i>Nanoscale</i> , <b>2015</b> , 7, 17404-9	7.7	31
47	Notch strengthening in nanoscale metallic glasses. <i>Acta Materialia</i> , <b>2019</b> , 169, 147-154	8.4	26
46	Molecular dynamics simulations of nano-indentation and wear of the Ti-Al alloy. <i>Computational Materials Science</i> , <b>2015</b> , 110, 247-253	3.2	26
45	Effects of grain size and temperature on mechanical and failure properties of ultrananocrystalline diamond. <i>Diamond and Related Materials</i> , <b>2011</b> , 20, 1303-1309	3.5	25
44	Molecular dynamics studies of short to medium range order in Cu <sub>64</sub> Zr <sub>36</sub> metallic glass. <i>Journal of Alloys and Compounds</i> , <b>2011</b> , 509, 8319-8322	5.7	25
43	Ab initio study on the electronic origin of glass-forming ability in the binary Cu <sub>2</sub> Zr and the ternary Cu <sub>2</sub> ZrAl(Ag) metallic glasses. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 619, 16-19	5.7	23
42	Thermal transport behavior of polycrystalline graphene: A molecular dynamics study. <i>Journal of Applied Physics</i> , <b>2014</b> , 116, 204303	2.5	23
41	Electronic structures of BSi <sub>3</sub> N <sub>4</sub> (0001)/Si(111) interfaces: Perfect bonding and dangling bond effects. <i>Journal of Applied Physics</i> , <b>2009</b> , 105, 024108	2.5	23
40	Tuning the thermal conductivity of multi-layer graphene with interlayer bonding and tensile strain. <i>Applied Physics A: Materials Science and Processing</i> , <b>2015</b> , 120, 1275-1281	2.6	22
39	Mechanical properties of nanoporous metallic glasses: Insights from large-scale atomic simulations. <i>International Journal of Plasticity</i> , <b>2020</b> , 127, 102657	7.6	22

38	Simultaneously boost diffusion length and stability of perovskite for high performance solar cells. <i>Nano Energy</i> , <b>2019</b> , 59, 721-729	17.1	21
37	Temperature and strain-rate dependent mechanical properties of single-layer borophene. <i>Extreme Mechanics Letters</i> , <b>2018</b> , 19, 39-45	3.9	20
36	Friction between silicon and diamond at the nanoscale. <i>Journal Physics D: Applied Physics</i> , <b>2015</b> , 48, 255303	3	20
35	Electric and magnetic properties of Cr-doped SiC films grown by dual ion beam sputtering deposition. <i>Journal Physics D: Applied Physics</i> , <b>2008</b> , 41, 035005	3	20
34	On the notch sensitivity of CuZr nanoglass. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 163507	2.5	18
33	Remarkable enhancement in failure stress and strain of penta-graphene via chemical functionalization. <i>Nano Research</i> , <b>2017</b> , 10, 3865-3874	10	17
32	A molecular dynamics study of the mechanical properties of h-BCN monolayer using a modified Tersoff interatomic potential. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2019</b> , 383, 2821-2827	2.3	17
31	Initial study on the structure and optical properties of ZnO film on Si(1 1 1) substrate with a SiC buffer layer. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2006</b> , 33, 263-267	3	17
30	The structure and optical properties of SiC film on Si (111) substrate with a ZnO buffer layer by RF-magnetron sputtering technique. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2006</b> , 355, 228-232	2.3	17
29	Possible efficient p-type doping of AlN using Be: An ab initio study. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 152110	3.4	16
28	Ab initio study on the effects of dopant-defect cluster on the electronic properties of TiO <sub>2</sub> -based photocatalysts. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 2049-2055	6.7	15
27	The nature of the atomic-level structure in the CuZr binary metallic glasses. <i>Intermetallics</i> , <b>2012</b> , 26, 8-10	3.5	15
26	The fundamental structural factor in determining the glass-forming ability and mechanical behavior in the CuZr metallic glasses. <i>Materials Chemistry and Physics</i> , <b>2011</b> , 127, 292-295	4.4	15
25	Molecular dynamics simulations on the frictional behavior of a perfluoropolyether film sandwiched between diamond-like-carbon coatings. <i>Langmuir</i> , <b>2014</b> , 30, 1573-9	4	14
24	Study of the Spreading of Perfluoropolyether Lubricants on a Diamond-Like Carbon Film. <i>Tribology Transactions</i> , <b>2013</b> , 56, 255-267	1.8	14
23	Deformation and failure mechanisms of nanoscale cellular structures of metallic glasses. <i>RSC Advances</i> , <b>2016</b> , 6, 100899-100907	3.7	13
22	Initial study on the structure and photoluminescence properties of SiC films doped with Al. <i>Applied Surface Science</i> , <b>2006</b> , 252, 4340-4344	6.7	11
21	The structure and photoluminescence properties of SiC films doped with Al. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2005</b> , 346, 186-192	2.3	10

20	Fatigue of Metallic Glasses. <i>Applied Mechanics Reviews</i> , <b>2020</b> , 72,	8.6	9
19	Mechanical behavior of metallic glasses with pressure-promoted thermal rejuvenation. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 848, 156597	5.7	9
18	Atomistic Molecular Dynamics Study of Structural and Thermomechanical Properties of Zdol Lubricants on Hydrogenated Diamond-Like Carbon. <i>IEEE Transactions on Magnetics</i> , <b>2013</b> , 49, 5227-5235 <sup>2</sup>		8
17	One-Step Synthesis of Silicon Oxynitride Films Using a Steady-State and High-Flux Helicon-Wave Excited Nitrogen Plasma. <i>Plasma Chemistry and Plasma Processing</i> , <b>2017</b> , 37, 1237-1247	3.6	7
16	Structure and optical properties of the SiC/ZnO five-layer multi-layer on Si (111) substrate with a SiC buffer layer. <i>Journal Physics D: Applied Physics</i> , <b>2006</b> , 39, 3240-3243	3	7
15	Composition-dependent effects of oxygen on atomic structure and mechanical properties of metallic glasses. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 1335-1342	3.6	7
14	Failure Mechanism of Phosphorene by Nanoindentation. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 4708-4713	3.4	5
13	Thermal damage and ablation behavior of graphene induced by ultrafast laser irradiation. <i>Journal of Thermal Stresses</i> , <b>2018</b> , 41, 1153-1168	2.2	5
12	A two-step fused machine learning approach for the prediction of glass-forming ability of metallic glasses. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 875, 160040	5.7	5
11	Coupling of magnetic edge states in Li-intercalated bilayer and multilayer zigzag graphene nanoribbons. <i>Europhysics Letters</i> , <b>2011</b> , 94, 27007	1.6	4
10	Initial study on the structure and photoluminescence properties of SiC films doped with Co. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2006</b> , 35, 38-41	3	4
9	The Edge-Related Mechanical Properties of Fluorographene Nanoribbons. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2015</b> , 82,	2.7	3
8	Intrinsic and extrinsic effects on the fracture toughness of ductile metallic glasses. <i>Mechanics of Materials</i> , <b>2021</b> , 162, 104066	3.3	2
7	On the deformation and failure mechanisms of hydrogen alloyed metallic glasses. <i>Journal of Applied Physics</i> , <b>2022</b> , 131, 085104	2.5	2
6	Hydrogen induced cracking in metallic glasses. <i>Journal of Applied Physics</i> , <b>2021</b> , 130, 235101	2.5	1
5	The effect of pressure-promoted thermal rejuvenation on the fracture energy of metallic glasses. <i>Journal of Non-Crystalline Solids</i> , <b>2022</b> , 590, 121674	3.9	1
4	Creep rupture behavior of 2.25Cr1Mo0.25V steel and weld for hydrogenation reactors under different stress levels. <i>Reviews on Advanced Materials Science</i> , <b>2022</b> , 61, 334-349	4.8	1
3	Ultra-compact meta-fence to block and channel mechanical waves. <i>Extreme Mechanics Letters</i> , <b>2022</b> , 52, 101659	3.9	0

2 The structure and photoluminescence properties of ZnO/SiC multilayer film on Si substrate.  
*Frontiers of Materials Science in China*, **2007**, 1, 158-161

1 IMPROVED MECHANICAL PROPERTIES OF METALLIC GLASSES **2015**, 87-88