Qing-Xia Pei

List of Publications by Year in Descending Order

114 papers	4,389 citations	38 h-index	62 g-index
119 ext. papers	4,920 ext. citations	4.2 avg, IF	5.91 L-index

#	Paper	IF	Citations
114	Simultaneously enhancing the strength and toughness of short fiber reinforced thermoplastic composites by fiber cross-linking. *Composites Science and Technology*, **2022**, 217, 109076	8.6	4
113	Defect-Engineered Thermal Transport in Wrinkled Graphene: A Comprehensive Molecular Dynamics Study. *Journal of Physical Chemistry C*, **2022**, 126, 5759-5766	3.8	1
112	Atomistic-scale analysis of the deformation and failure of polypropylene composites reinforced by functionalized silica nanoparticles. *Scientific Reports*, **2021**, 11, 23108	4.9	0
111	Composition-dependent effects of oxygen on atomic structure and mechanical properties of metallic glasses. *Physical Chemistry Chemical Physics*, **2021**, 23, 1335-1342	3.6	7
110	Effect of surface coupling agents on the mechanical behaviour of polypropylene/silica composites: a molecular dynamics study. *Journal of Polymer Research*, **2021**, 28, 1	2.7	2
109	A systematic study of interatomic potentials for mechanical behaviours of Ti-Al alloys. *Computational Materials Science*, **2021**, 188, 110239	3.2	11
108	Temperature and defect effects on the mechanical properties of pentadiamond. *Diamond and Related Materials*, **2021**, 118, 108523	3.5	4
107	Intrinsic and extrinsic effects on the fracture toughness of ductile metallic glasses. *Mechanics of Materials*, **2021**, 162, 104066	3.3	2
106	Recent progress in the development of thermal interface materials: a review. *Physical Chemistry Chemical Physics*, **2021**, 23, 753-776	3.6	19
105	Exploring the structure-property relationship of three-dimensional hexagonal boron nitride aerogels with gyroid surfaces. *Nanoscale*, **2020**, 12, 10180-10188	7.7	3
104	Failure in Two-Dimensional Materials: Defect Sensitivity and Failure Criteria. *Journal of Applied Mechanics, Transactions ASME*, **2020**, 87,	2.7	8
103	Modelling of Defects and Failure in 2D Materials: Graphene and Beyond **2020**, 1869-1909		1
102	Mechanical behaviour of kirigami graphene under shear loading. *Computational Materials Science*, **2020**, 173, 109462	3.2	4
101	Unusual thermal properties of graphene origami crease: A molecular dynamics study. *Green Energy and Environment*, **2020**,	5.7	5
100	Elastic properties of injection molded short glass fiber reinforced thermoplastic composites. *Composite Structures*, **2020**, 254, 112850	5.3	10
99	The mechanical and thermal properties of MoS-WSe lateral heterostructures. *Physical Chemistry Chemical Physics*, **2019**, 21, 15845-15853	3.6	15
98	A molecular dynamics study of the mechanical properties of h-BCN monolayer using a modified Tersoff interatomic potential. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2019**, 383, 2821-2827	2.3	17

97	Notch strengthening in nanoscale metallic glasses. *Acta Materialia*, **2019**, 169, 147-154	8.4	26
96	Thermal transport in graphene-based layered materials: An analytical model validated with extensive molecular dynamics simulations. *Carbon*, **2019**, 155, 114-121	10.4	8
95	Strength and buckling behavior of defective phosphorene nanotubes under axial compression. *Journal of Materials Science*, **2018**, 53, 8355-8363	4.3	6
94	Anisotropic Wetting Characteristics of Water Droplets on Phosphorene: Roles of Layer and Defect Engineering. *Journal of Physical Chemistry C*, **2018**, 122, 4622-4627	3.8	17
93	Temperature and strain-rate dependent mechanical properties of single-layer borophene. *Extreme Mechanics Letters*, **2018**, 19, 39-45	3.9	20
92	Large diffusion anisotropy and orientation sorting of phosphorene nanoflakes under a temperature gradient. *Nanoscale*, **2018**, 10, 1660-1666	7.7	12
91	Thermal damage and ablation behavior of graphene induced by ultrafast laser irradiation. *Journal of Thermal Stresses*, **2018**, 41, 1153-1168	2.2	5
90	Modelling of Defects and Failure in 2D Materials: Graphene and Beyond **2018**, 1-41		1
89	Interfacial Thermal Conductance and Thermal Rectification of Hexagonal BCnN/Graphene In-Plane Heterojunctions. *Journal of Physical Chemistry C*, **2018**, 122, 22783-22789	3.8	24
88	Predictive model for porosity in powder-bed fusion additive manufacturing at high beam energy regime. *Additive Manufacturing*, **2018**, 22, 817-822	6.1	41
87	Failure Mechanism of Phosphorene by Nanoindentation. *Journal of Physical Chemistry C*, **2017**, 121, 4708-4713	3.8	5
86	Atomistic origin of size effects in fatigue behavior of metallic glasses. *Journal of the Mechanics and Physics of Solids*, **2017**, 104, 84-95	5	52
85	Remarkable enhancement in failure stress and strain of penta-graphene via chemical functionalization. *Nano Research*, **2017**, 10, 3865-3874	10	17
84	Thermal stability and thermal conductivity of phosphorene in phosphorene/graphene van der Waals heterostructures. *Physical Chemistry Chemical Physics*, **2017**, 19, 17180-17186	3.6	26
83	Graphene membranes with nanoslits for seawater desalination via forward osmosis. *Physical Chemistry Chemical Physics*, **2017**, 19, 30551-30561	3.6	30
82	Thermal conductivity of a h-BCN monolayer. *Physical Chemistry Chemical Physics*, **2017**, 19, 27326-27331	3.6	27
81	Active Control of Microstructure in Powder-Bed Fusion Additive Manufacturing of Ti6Al4V. *Advanced Engineering Materials*, **2017**, 19, 1700333	3.5	12
80	Metallic glass-based chiral nanolattice: Light weight, auxeticity, and superior mechanical properties. *Materials Today*, **2017**, 20, 569-576	21.8	56

79	Mechanical properties and failure behaviour of graphene/silicene/graphene heterostructures. *Journal Physics D: Applied Physics*, **2017**, 50, 345302	3	27
78	Thermal conductivity of penta-graphene: The role of chemical functionalization. *Computational Materials Science*, **2017**, 137, 195-200	3.2	23
77	Mechanical properties and fracture behaviour of defective phosphorene nanotubes under uniaxial tension. *Journal Physics D: Applied Physics*, **2017**, 50, 485303	3	4
76	Deformation and failure mechanisms of nanoscale cellular structures of metallic glasses. *RSC Advances*, **2016**, 6, 100899-100907	3.7	13
75	Interfacial thermal conductance in multilayer graphene/phosphorene heterostructure. *Journal Physics D: Applied Physics*, **2016**, 49, 465301	3	12
74	Some Aspects of Thermal Transport across the Interface between Graphene and Epoxy in Nanocomposites. *ACS Applied Materials & Interfaces*, **2016**, 8, 8272-9	9.5	71
73	Thermal conductivities of single- and multi-layer phosphorene: a molecular dynamics study. *Nanoscale*, **2016**, 8, 483-91	7.7	129
72	Interfacial thermal conductance in graphene/MoS2 heterostructures. *Carbon*, **2016**, 96, 888-896	10.4	77
71	Atomic vacancies significantly degrade the mechanical properties of phosphorene. *Nanotechnology*, **2016**, 27, 315704	3.4	44
70	Decoupled electron and phonon transports in hexagonal boron nitride-silicene bilayer heterostructure. *Journal of Applied Physics*, **2016**, 119, 065102	2.5	25
69	Modeling the Microstructure Evolution During Additive Manufacturing of Ti6Al4V: A Comparison Between Electron Beam Melting and Selective Laser Melting. *Jom*, **2016**, 68, 1370-1375	2.1	34
68	Controlling of residual stress in additive manufacturing of Ti6Al4V by finite element modeling. *Additive Manufacturing*, **2016**, 12, 231-239	6.1	106
67	Surface morphology and strain coupling effects on phonon transport in silicon nanowires. *Materials Today: Proceedings*, **2016**, 3, 2759-2765	1.4	4
66	Manipulating the Thermal Conductivity of Monolayer MoS2 via Lattice Defect and Strain Engineering. *Journal of Physical Chemistry C*, **2015**, 119, 16358-16365	3.8	112
65	Thermal conductivity of oxidized gamma-graphyne. *RSC Advances*, **2015**, 5, 65221-65226	3.7	7
64	Necking and notch strengthening in metallic glass with symmetric sharp-and-deep notches. *Scientific Reports*, **2015**, 5, 10797	4.9	56
63	Ab initio molecular dynamics study of the local atomic structures in monatomic metallic liquid and glass. *Materials & Design*, **2015**, 77, 1-5		47
62	Tuning the thermal conductivity of multi-layer graphene with interlayer bonding and tensile strain. *Applied Physics A: Materials Science and Processing*, **2015**, 120, 1275-1281	2.6	22

61	Strong and superplastic nanoglass. *Nanoscale*, **2015**, 7, 17404-9	7.7	31
60	Modeling and control of remelting in high-energy beam additive manufacturing. *Additive Manufacturing*, **2015**, 7, 57-63	6.1	20
59	Ab initio study on the electronic origin of glass-forming ability in the binary Cu□r and the ternary Cu□rA(Ag) metallic glasses. *Journal of Alloys and Compounds*, **2015**, 619, 16-19	5.7	23
58	An experimental and simulation study on build thickness dependent microstructure for electron beam melted Ti□Al□V. *Journal of Alloys and Compounds*, **2015**, 646, 303-309	5.7	81
57	MECHANICAL PROPERTIES AND FRACTURE BEHAVIOR OF GRAPHENE AND OTHER 2D MATERIALS **2015**, 75-76		
56	Friction between silicon and diamond at the nanoscale. *Journal Physics D: Applied Physics*, **2015**, 48, 255303	3	20
55	Mechanical properties and fracture behavior of single-layer phosphorene at finite temperatures. *Journal Physics D: Applied Physics*, **2015**, 48, 395303	3	86
54	A molecular dynamics simulation study on thermal conductivity of functionalized bilayer graphene sheet. *Chemical Physics Letters*, **2015**, 622, 104-108	2.5	27
53	In-plane and cross-plane thermal conductivities of molybdenum disulfide. *Nanotechnology*, **2015**, 26, 065703	3.4	53
52	Effects of grain size, temperature and strain rate on the mechanical properties of polycrystalline graphene □A molecular dynamics study. *Carbon*, **2015**, 85, 135-146	10.4	96
51	Modulating the thermal conductivity of silicon nanowires via surface amorphization. *Science China Technological Sciences*, **2014**, 57, 699-705	3.5	10
50	Molecular dynamics simulations on the frictional behavior of a perfluoropolyether film sandwiched between diamond-like-carbon coatings. *Langmuir*, **2014**, 30, 1573-9	4	14
49	Temperature and strain-rate dependent fracture strength of graphynes. *Journal Physics D: Applied Physics*, **2014**, 47, 425301	3	37
48	Effects of temperature and strain rate on the mechanical properties of silicene. *Journal of Applied Physics*, **2014**, 115, 023519	2.5	93
47	Is the failure of large-area polycrystalline graphene notch sensitive or insensitive?. *Carbon*, **2014**, 72, 200-206	10.4	36
46	Hydrogenated Grain Boundaries Control the Strength and Ductility of Polycrystalline Graphene. *Journal of Physical Chemistry C*, **2014**, 118, 13769-13774	3.8	39
45	On the notch sensitivity of CuZr nanoglass. *Journal of Applied Physics*, **2014**, 115, 163507	2.5	18
44	Inverse pseudo Hall-Petch relation in polycrystalline graphene. *Scientific Reports*, **2014**, 4, 5991	4.9	67

43	On the failure load and mechanism of polycrystalline graphene by nanoindentation. *Scientific Reports*, **2014**, 4, 7437	4.9	48
42	Effect of aspect ratio on the mechanical properties of metallic glasses. *Scripta Materialia*, **2014**, 93, 36-39	3.6	38
41	Thermal transport behavior of polycrystalline graphene: A molecular dynamics study. *Journal of Applied Physics*, **2014**, 116, 204303	2.5	23
40	The mechanical properties of a nanoglass/metallic glass/nanoglass sandwich structure. *Scripta Materialia*, **2014**, 83, 37-40	5.6	32
39	Atomistic Molecular Dynamics Study of Structural and Thermomechanical Properties of Zdol Lubricants on Hydrogenated Diamond-Like Carbon. *IEEE Transactions on Magnetics*, **2013**, 49, 5227-5235	2	8
38	On the notch sensitivity of CuZr metallic glasses. *Applied Physics Letters*, **2013**, 103, 081903	3.4	60
37	Tuning the thermal conductivity of silicene with tensile strain and isotopic doping: A molecular dynamics study. *Journal of Applied Physics*, **2013**, 114, 033526	2.5	102
36	Phonon thermal conductivity of monolayer MoS2 sheet and nanoribbons. *Applied Physics Letters*, **2013**, 103, 133113	3.4	145
35	Superplastic nanocrystalline ceramics at room temperature and high strain rates. *Scripta Materialia*, **2013**, 69, 525-528	5.6	16
34	A modified Tersoff potential for pure and hydrogenated diamond-like carbon. *Computational Materials Science*, **2013**, 67, 146-150	3.2	37
33	A molecular dynamics investigation on mechanical properties of hydrogenated graphynes. *Journal of Applied Physics*, **2013**, 114, 073504	2.5	18
32	Large-scale molecular dynamics simulations of wear in diamond-like carbon at the nanoscale. *Applied Physics Letters*, **2013**, 103, 073118	3.4	55
31	Thermal conductivity of fluorinated graphene: A non-equilibrium molecular dynamics study. *Chemical Physics Letters*, **2012**, 552, 97-101	2.5	61
30	The nature of the atomic-level structure in the Cu2r binary metallic glasses. *Intermetallics*, **2012**, 26, 8-10	3.5	15
29	Mechanical properties of graphynes under tension: A molecular dynamics study. *Applied Physics Letters*, **2012**, 101, 081909	3.4	184
28	A molecular dynamics investigation on thermal conductivity of graphynes. *Computational Materials Science*, **2012**, 65, 406-410	3.2	80
27	Thermal conductivity of defective graphene. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2012**, 376, 3668-3672	2.3	78
26	Carbon isotope doping induced interfacial thermal resistance and thermal rectification in graphene. *Applied Physics Letters*, **2012**, 100, 101901	3.4	73

25	Effects of grain size and temperature on mechanical and failure properties of ultrananocrystalline diamond. *Diamond and Related Materials*, **2011**, 20, 1303-1309	3.5	25
24	A theoretical analysis of the thermal conductivity of hydrogenated graphene. *Carbon*, **2011**, 49, 4752-4759	10.4	152
23	Effect of sp3-hybridized defects on the oscillatory behavior of carbon nanotube oscillators. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2011**, 375, 2400-2404	2.3	5
22	Mechanical properties of methyl functionalized graphene: a molecular dynamics study. *Nanotechnology*, **2010**, 21, 115709	3.4	92
21	A molecular dynamics study of the mechanical properties of hydrogen functionalized graphene. *Carbon*, **2010**, 48, 898-904	10.4	390
20	Study of Materials Deformation in Nanometric Cutting by Large-scale Molecular Dynamics Simulations. *Nanoscale Research Letters*, **2009**, 4, 444-451	5	82
19	Molecular-dynamics studies of competitive replacement in peptide-nanotube assembly for control of drug release. *Nanotechnology*, **2009**, 20, 145101	3.4	18
18	Molecular dynamics study on DNA oligonucleotide translocation through carbon nanotubes. *Journal of Chemical Physics*, **2008**, 129, 125101	3.9	23
17	Simulations of micro and nanoindentations. *Journal of Mechanics of Materials and Structures*, **2008**, 3, 1847-1856	1.2	4
16	Translocation of DNA oligonucleotide through carbon nanotube channels under induced pressure difference. *Physica A: Statistical Mechanics and Its Applications*, **2008**, 387, 3111-3120	3.3	17
15	Elastic fields in quantum dots arrays: A three-dimensional finite element study. *Engineering Analysis With Boundary Elements*, **2008**, 32, 309-317	2.6	4
14	Microstructure and Properties of Al-6061 Alloy by Equal Channel Angular Extrusion for 16 Passes. *Materials and Manufacturing Processes*, **2007**, 22, 819-824	4.1	38
13	Molecular dynamics study on the nanoimprint of copper. *Journal Physics D: Applied Physics*, **2007**, 40, 4928-4935	3	31
12	Large scale molecular dynamics study of nanometric machining of copper. *Computational Materials Science*, **2007**, 41, 177-185	3.2	101
11	MOLECULAR DYNAMICS SIMULATION OF NANOMETRIC CUTTING PROCESS. *International Journal of Nanoscience*, **2006**, 05, 633-638	0.6	1
10	STUDY ON NANOMETRIC CUTTING MECHANISM AND BURR FORMATION USING MOLECULAR DYNAMICS SIMULATION. *International Journal of Nanoscience*, **2006**, 05, 547-551	0.6	1
9	Deformation Behavior Study of Multi-Pass ECAE Process for Fabrication of Ultrafine or Nanostructured Bulk Materials. *Materials and Manufacturing Processes*, **2006**, 21, 507-512	4.1	19
8	Nanometric cutting of copper: A molecular dynamics study. *Computational Materials Science*, **2006**, 37, 434-441	3.2	101

7	Crystallization of amorphous alloy during isothermal annealing: a molecular dynamics study. *Journal of Physics Condensed Matter*, **2005**, 17, 1493-1504	1.8	40
6	Thermo-Mechanical Modeling and Analysis of Equal Channel Angular Pressing. *Journal of Metastable and Nanocrystalline Materials*, **2005**, 23, 263-266	0.2	1
5	Coupled Thermo-Mechanical Analysis of Severe Plastic Deformation for Producing Bulk Nanostructured Materials. *Advanced Engineering Materials*, **2004**, 6, 933-936	3.5	7
4	The rapid solidification of Ti3Al : a molecular dynamics study. *Journal of Physics Condensed Matter*, **2004**, 16, 4203-4210	1.8	19
3	A finite element study of the temperature rise during equal channel angular pressing. *Scripta Materialia*, **2003**, 49, 303-308	5.6	47
2	Effect of elastic anisotropy on the elastic fields and vertical alignment of quantum dots. *Journal of Applied Physics*, **2003**, 93, 1487-1492	2.5	36
1	Modeling and Analysis of the Geometry-Dependent Mechanical and Thermal Properties of Coiled Carbon Nanotubes. *Physica Status Solidi - Rapid Research Letters*,2100360	2.5	0