Xihong Peng

List of Publications by Year
in descending order

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32 papers	2,508 citations	516215 16 h-index	454577 30 g-index
32 all docs	32 docs citations	32 times ranked	3390 citing authors

#	Article	IF	Citations
1	Superior mechanical flexibility of phosphorene and few-layer black phosphorus. Applied Physics Letters, 2014, 104, .	1.5	881
2	Strain-engineered direct-indirect band gap transition and its mechanism in two-dimensional phosphorene. Physical Review B, 2014, 90, .	1.1	797
3	Edge effects on the electronic properties of phosphorene nanoribbons. Journal of Applied Physics, 2014, 116, .	1.1	157
4	Electronic properties of strained Si/Ge core-shell nanowires. Applied Physics Letters, 2010, 96, .	1.5	83
5	Strain-modulated electronic properties of Ge nanowires: A first-principles study. Physical Review B, 2009, 80, .	1.1	71
6	Strain modulated band gap of edge passivated armchair graphene nanoribbons. Applied Physics Letters, 2011, 98, 023112.	1.5	69
7	Engineering the work function of armchair graphene nanoribbons using strain and functional species: a first principles study. Journal of Physics Condensed Matter, 2012, 24, 075501.	0.7	61
8	Origination of the direct-indirect band gap transition in strained wurtzite and zinc-blende GaAs nanowires: A first principles study. Physical Review B, 2013, 87, .	1.1	48
9	Engineering direct-indirect band gap transition in wurtzite GaAs nanowires through size and uniaxial strain. Applied Physics Letters, 2012, 100, 193108.	1.5	39
10	Band structure of Si/Ge coreâ€“shell nanowires along the [110] direction modulated by external uniaxial strain. Journal of Physics Condensed Matter, 2011, 23, 115502.	0.7	34
11	Electrochemical Cycling of Sodiumâ€Filled Silicon Clathrate. ChemElectroChem, 2014, 1, 347-353.	1.7	29
12	Role of Alkali Metal in BiVO₄ Crystal Structure for Enhancing Charge Separation and Diffusion Length for Photoelectrochemical Water Splitting. ACS Applied Materials & Interfaces, 2020, 12, 52808-52818.	4.0	28
13	Superior mechanical flexibility and strained-engineered direct-indirect band gap transition of green phosphorene. Applied Physics Letters, 2018, 112, .	1.5	25
14	Auxetic Tetrahex Carbon with Ultrahigh Strength and a Direct Band Gap. Physical Review Applied, 2020, 13, .	1.5	23
15	First-Principles Study of Lithiation of Type I Ba-Doped Silicon Clathrates. Journal of Physical Chemistry C, 2015, 119, 28247-28257.	1.5	22
16	Chemical scissors cut phosphorene nanostructures. Materials Research Express, 2014, 1, 045041.	0.8	20
17	Experimental and Computational Study of the Lithiation of Ba8AlyGe46â€“y Based Type I Germanium Clathrates. ACS Applied Materials & Interfaces, 2018, 10, 37981-37993.	4.0	17
18	Six new silicon phases with direct band gaps. Physical Chemistry Chemical Physics, 2019, 21, 19963-19968.	1.3	16

#	Article	IF	Citations
19	Electrochemical and Photoelectrochemical Properties of the Copper Hydroxyphosphate Mineral Libethenite. ChemElectroChem, 2014, 1, 663-672.	1.7	15
20	Enhanced carrier mobility in anisotropic two-dimensional tetrahex-carbon through strain engineering. Carbon, 2020, 165, 37-44.	5.4	15
21	Structural Origin of Reversible Li Insertion in Guestâ€Free, Typeâ€I Silicon Clathrates. Advanced Energy and Sustainability Research, 2021, 2, 2000114.	2.8	12
22	Ab Initio Investigation of Li and Na Migration in Guest-Free, Type I Clathrates. Journal of Physical Chemistry C, 2019, 123, 22812-22822.	1.5	11
23	A new 2D auxetic CN₂ nanostructure with high energy density and mechanical strength. Physical Chemistry Chemical Physics, 2021, 23, 4353-4364.	1.3	8
24	New stable two dimensional silicon carbide nanosheets. Journal of Alloys and Compounds, 2021, 868, 159201.	2.8	8
25	Systematic theoretical study of carbon nanotubes rolled from a two-dimensional tetrahex-carbon nanosheet. Physical Review B, 2020, 102, .	1.1	6
26	Size and strain effects on mechanical and electronic properties of green phosphorene nanoribbons. AIP Advances, 2018, 8, .	0.6	4
27	Quantum confinement and edge effects on electronic properties of zigzag green phosphorene nanoribbons. Journal of Physics Condensed Matter, 2020, 32, 175301.	0.7	3
28	Structural and Electrochemical Properties of Type VIII Ba₈Ga_{16â^'Î´}Sn_{30+Î´} Clathrate (Î´ â‰ˆ 1) during Lithiation. ACS Applied Materials & Interfaces, 2021, 13, 42564-42578.	4.0	3
29	Electronic properties of fluorine/hydrogen adsorbed two-dimensional tetrahex-carbon: A first-principles study. Applied Surface Science, 2020, 529, 147150.	3.1	2
30	Electronic properties of hydrogen/fluorine adsorbed two-dimensional C568: A first-principles study. Surfaces and Interfaces, 2022, 31, 102067.	1.5	1
31	Tunable magnetism through edge functionalization in zigzag green phosphorene nanoribbons. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126672.	0.9	0
32	New stable 2D and 3D GeC2 crystal structures predicted by first-principles study. Materials Today Communications, 2021, 28, 102567.	0.9	0