Qingyang Fan

List of Publications by Year
in descending order

69 papers	1,677 citations	257450 24 h-index	330143 37 g-index
70 all docs	70 docs citations	70 times ranked	543 citing authors

#	Article	IF	Citations
1	Physical properties of group 14 elements in P2/m phase. Journal of Solid State Chemistry, 2022, 305, 122641.	2.9	24
2	All <i>sp</i>2 hybridization BN polymorphs with wide bandgap. Journal of Applied Physics, 2022, 131, .	2.5	24
3	Siâ€“C alloys with direct band gaps for photoelectric application. Vacuum, 2022, 199, 110952.	3.5	16
4	Low-energy Ga₂O₃ polymorphs with low electron effective masses. Physical Chemistry Chemical Physics, 2022, 24, 7045-7049.	2.8	8
5	Four Carbon Allotropes Form COT Structures. ACS Applied Electronic Materials, 2022, 4, 2353-2363.	4.3	9
6	Two novel large-cell boron nitride polymorphs. Diamond and Related Materials, 2022, 126, 109046.	3.9	7
7	Three new C N compounds in orthorhombic symmetry: Theoretical investigations. Diamond and Related Materials, 2022, 127, 109181.	3.9	4
8	Tower carbon: a new large-cell carbon allotrope. Journal of Physics Condensed Matter, 2022, 34, 365702.	1.8	5
9	Three non-metallic carbon materials with comparable electrical conductivity to metals. Diamond and Related Materials, 2022, 128, 109230.	3.9	4
10	Two-dimensional carbon allotropes with tunable direct band gaps and high carrier mobility. Applied Surface Science, 2021, 537, 147885.	6.1	39
11	Stability, mechanical, anisotropic and electronic properties of oP8 carbon: A superhard carbon allotrope in orthorhombic phase. Journal of Solid State Chemistry, 2021, 294, 121894.	2.9	42
12	Enhanced direct interspecies electron transfer with transition metal oxide accelerants in anaerobic digestion. Bioresource Technology, 2021, 320, 124294.	9.6	52
13	Three-dimensional metallic carbon allotropes with superhardness. Nanotechnology Reviews, 2021, 10, 1266-1276.	5.8	24
14	Two-Dimensional Tetrahex-GeC₂: A Material with Tunable Electronic and Optical Properties Combined with Ultrahigh Carrier Mobility. ACS Applied Materials & Interfaces, 2021, 13, 14489-14496.	8.0	15
15	Structural, Electronic, and Optical Properties of Hexagonal XC 6 (X=N, P, As, and Sb) Monolayers. ChemPhysChem, 2021, 22, 1124-1133.	2.1	0
16	Two orthorhombic superhard carbon allotropes: C16 and C24. Diamond and Related Materials, 2021, 116, 108426.	3.9	35
17	Group 14 semiconductor alloys in the P41212 phase: A comprehensive study. Results in Physics, 2021, 25, 104254.	4.1	10
18	Direct and quasi-direct band gap of novel Si-Ge alloys in P-3m1 phase. Journal of Physics Condensed Matter, 2021, 33, 385702.	1.8	6

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19	P2₁3 BN: a novel large-cell boron nitride polymorph. Communications in Theoretical Physics, 2021, 73, 125701.	2.5	18
20	Semimetallic 2D Alkynyl Carbon Materials with Distorted Type I Dirac Cones. Journal of Physical Chemistry C, 2021, 125, 18022-18030.	3.1	7
21	An orthorhombic superhard carbon allotrope: Pmma C24. Journal of Solid State Chemistry, 2021, 300, 122260.	2.9	33
22	Ima2 C32: An orthorhombic carbon allotrope with direct band gap. Diamond and Related Materials, 2021, 120, 108602.	3.9	8
23	3D superhard metallic carbon network with 1D multi-threaded conduction. Diamond and Related Materials, 2021, 120, 108706.	3.9	4
24	PBCFâ€Graphene: A 2D <i>Sp</i>² Hybridized Honeycomb Carbon Allotrope with a Direct Band Gap. ChemNanoMat, 2020, 6, 139-147.	2.8	54
25	Direct and quasi-direct band gap silicon allotropes with low energy and strong absorption in the visible for photovoltaic applications. Results in Physics, 2020, 18, 103271.	4.1	12
26	Superhard three-dimensional carbon with one-dimensional conducting channels. New Journal of Chemistry, 2020, 44, 19789-19795.	2.8	14
27	A novel two-dimensional sp-sp2-sp3 hybridized carbon nanostructure with a negative in-plane Poisson ratio and high electron mobility. Computational Materials Science, 2020, 185, 109904.	3.0	20
28	Novel III-V Nitride Polymorphs in the P42/mnm and Pbca Phases. Materials, 2020, 13, 3743.	2.9	11
29	Designing a sp3 nanoporous structure of carbon: A comprehensive study on the physical properties. Results in Physics, 2020, 19, 103473.	4.1	17
30	Metallic and semiconducting carbon allotropes comprising of pentalene skeletons. Diamond and Related Materials, 2020, 109, 108063.	3.9	19
31	Physical Properties of XN (X = B, Al, Ga, In) in the Pmâˆ’3n phase: First-Principles Calculations. Materials, 2020, 13, 1280.	2.9	25
32	P63/mmc-Ge and their Siâ€“Ge alloys with a mouldable direct band gap. Semiconductor Science and Technology, 2020, 35, 055012.	2.0	26
33	Physical properties of a novel microporous carbon material. Diamond and Related Materials, 2020, 106, 107831.	3.9	31
34	Penta-C20: A Superhard Direct Band Gap Carbon Allotrope Composed of Carbon Pentagon. Materials, 2020, 13, 1926.	2.9	31
35	Six novel carbon and silicon allotropes with their potential application in photovoltaic field. Journal of Physics Condensed Matter, 2020, 32, 355701.	1.8	20
36	Five carbon allotropes from Squaroglitter structures. Computational Materials Science, 2020, 178, 109634.	3.0	49

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37	Designing a sp3 structure of carbon T-C9: First-principles calculations. Results in Physics, 2020, 19, 103690.	4.1	16
38	Effective mass anisotropy of Si-Ge alloys: a discussion of the effective mass tensor. Physica Scripta, 2020, 95, 115808.	2.5	7
39	Physical properties of Siâ€"Ge alloys in <i>C</i>2/<i>m</i> phase: a comprehensive investigation. Journal of Physics Condensed Matter, 2019, 31, 255703.	1.8	16
40	Physical properties of group 14 semiconductor alloys in orthorhombic phase. Journal of Applied Physics, 2019, 126, 045709.	2.5	24
41	Two novel superhard carbon allotropes with honeycomb structures. Journal of Applied Physics, 2019, 126, .	2.5	41
42	Siâ€"Ge alloys in C2/c phase with tunable direct band gaps: A comprehensive study. Current Applied Physics, 2019, 19, 1325-1333.	2.4	17
43	A hybrid niobium-based oxide with bio-based porous carbon as an efficient electrocatalyst in photovoltaics: a general strategy for understanding the catalytic mechanism. Journal of Materials Chemistry A, 2019, 7, 14864-14875.	10.3	74
44	Electronic, Mechanical and Elastic Anisotropy Properties of X-Diamondyne (X = Si, Ge). Materials, 2019, 12, 3589.	2.9	9
45	<i>t</i>â€Si₆₄: A Novel Silicon Allotrope. ChemPhysChem, 2019, 20, 128-133.	2.1	45
46	Theoretical investigations of Ge1â^'xSn x alloys (xâ€‰=â€‰0, 0.333, 0.667, 1) in P42/ncm phase. Journal of Materials Science, 2018, 53, 9611-9626.	3.7	26
47	Theoretical investigations of group IV alloys in the Lonsdaleite phase. Journal of Materials Science, 2018, 53, 2785-2801.	3.7	31
48	Structural, Mechanical, Anisotropic, and Thermal Properties of AlAs in oC12 and hP6 Phases under Pressure. Materials, 2018, 11, 740.	2.9	12
49	Structural, Electronic, and Thermodynamic Properties of Tetragonal t-SixGe3â^'xN4. Materials, 2018, 11, 397.	2.9	7
50	IIIâ€Nitride Polymorphs: XN (X=Al, Ga, In) in the <i>Pnma</i> Phase. Chemistry - A European Journal, 2018, 24, 17280-17287.	3.3	46
51	Thermodynamic, elastic, elastic anisotropy and minimum thermal conductivity of Î²-GaN under high temperature. Chinese Journal of Physics, 2017, 55, 400-411.	3.9	13
52	Theoretical prediction of new Câ€"Si alloys in ${oldsymbol{C}}2/{oldsymbol{m}}$-20 structure. Chinese Physics B, 2017, 26, 046101.	1.4	9
53	Two novel Ge phases and their Si Ge alloys with excellent electronic and optical properties. Materials and Design, 2017, 132, 539-551.	7.0	27
54	A Novel Silicon Allotrope in the Monoclinic Phase. Materials, 2017, 10, 441.	2.9	14

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55	A New Phase of GaN. Journal of Chemistry, 2016, 2016, 1-9.	1.9	10
56	Si96: A New Silicon Allotrope with Interesting Physical Properties. Materials, 2016, 9, 284.	2.9	26
57	The Mechanical and Electronic Properties of Carbon-Rich Silicon Carbide. Materials, 2016, 9, 333.	2.9	19
58	Two Novel C3N4 Phases: Structural, Mechanical and Electronic Properties. Materials, 2016, 9, 427.	2.9	34
59	Elastic anisotropy and electronic properties of Si3N4 under pressures. AIP Advances, 2016, 6, .	1.3	11
60	Mechanical and electronic properties of Si, Ge and their alloys in P42/mnm structure. Materials Science in Semiconductor Processing, 2016, 43, 187-195.	4.0	29
61	Mechanical and electronic properties of Si Ge alloy in Cmmm structure. Chinese Journal of Physics, 2016, 54, 298-307.	3.9	12
62	Mechanical and electronic properties of Câ€“Si alloys in the P222 1 structure. Chinese Journal of Physics, 2016, 54, 700-710.	3.9	8
63	Two novel silicon phases with direct band gaps. Physical Chemistry Chemical Physics, 2016, 18, 12905-12913.	2.8	50
64	Prediction of novel phase of silicon and Siâ€“Ge alloys. Journal of Solid State Chemistry, 2016, 233, 471-483.	2.9	37
65	Novel silicon allotropes: Stability, mechanical, and electronic properties. Journal of Applied Physics, 2015, 118, .	2.5	44
66	Structural, mechanical, and electronic properties of P3m1-BCN. Journal of Physics and Chemistry of Solids, 2015, 79, 89-96.	4.0	79
67	Elastic and electronic properties of Imm2- and I<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mover accent="true"><mml:mrow><mml:mn>4</mml:mn></mml:mrow><mml:mrow><mml:mo>Â¯</mml:mo></mml:mrow></mml:mover> Computational Materials Science, 2015, 97, 6-13.	3.0	25
68	Mechanical and electronic properties of Ca1â^’Mg O alloys. Materials Science in Semiconductor Processing, 2015, 40, 676-684.	4.0	18
69	Elastic and electronic properties of Pbca-BN: First-principles calculations. Computational Materials Science, 2014, 85, 80-87.	3.0	114