Xudong Zhang

List of Publications by Year
in descending order

37	877	394421	477307
papers	citations	19 h-index	29 g-index

37	37	37	216
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The influence of vacancy defects on elastic and electronic properties of TaSi (5/3) desilicides from a first-principles calculations. Ceramics International, 2020, 46, 10992-10999.	4.8	59
2	Insight into the elastic, electronic properties, anisotropy in elasticity of Manganese Borides. Vacuum, 2019, 165, 118-126.	3.5	58
3	The vacancy defects and oxygen atoms occupation effects on mechanical and electronic properties of Mo₅Si₃ silicides. Communications in Theoretical Physics, 2021, 73, 045702.	2.5	51
4	A first principles investigation on the influence of transition-metal elements on the structural, mechanical, and anisotropic properties of CaM2Al20 intermetallics. Journal of Molecular Graphics and Modelling, 2020, 96, 107509.	2.4	43
5	First-principles prediction of structure, mechanical and thermodynamic properties of BixGeyOz ternary bismuth crystals. Vacuum, 2022, 195, 110696.	3.5	41
6	Phase stability, elastic, anisotropic and thermodynamic properties of GdT2Al20 (Tâ€¯=â€¯Ti, V, Cr) compounds: A first-principles study. Vacuum, 2018, 157, 312-319.	3.5	38
7	First-principles prediction of the physical properties of ThM2Al20 (M= Ti, V, Cr) intermetallics. Solid State Communications, 2018, 284-286, 75-83.	1.9	38
8	Insight into the vacancy effects on mechanical and electronic properties of Tantalum Silicide. Ceramics International, 2020, 46, 4595-4601.	4.8	38
9	Insight into the vacancy effects on mechanical and electronic properties of V5Si3 silicides from first-principles calculations. Journal of Molecular Graphics and Modelling, 2020, 98, 107600.	2.4	36
10	Insight into the elastic and anisotropic properties of BiMg2MO6 (M= P, As and V) ceramics from the first-principles calculations. Ceramics International, 2019, 45, 11136-11140.	4.8	34
11	Phase stability, elastic, anisotropic properties, lattice dynamical and thermodynamic properties of B12M (M=Th, U, Np, Pu) dodecaborides. Ceramics International, 2018, 44, 128-135.	4.8	33
12	Effect of structural vacancies on lattice vibration, mechanical, electronic, and thermodynamic properties of Cr₅BSi₃. Chinese Physics B, 2022, 31, 026101.	1.4	31
13	Elastic, lattice dynamical, thermal stabilities and thermodynamic properties of BiF3-type Mg3RE compounds from first-principles calculations. Journal of Alloys and Compounds, 2016, 663, 565-573.	5.5	29
14	Site preference of transition-metal elements additions on mechanical and electronic properties of B2 DyCu-based alloys. Materials and Design, 2017, 133, 476-486.	7.0	29
15	Elastic anisotropy and thermodynamics properties of BiCu2PO6, BiZn2PO6 and BiPb2PO6 ceramics materials from first-principles calculations. Ceramics International, 2020, 46, 8575-8581.	4.8	26
16	Insight into the structure dependence on physical properties of the high temperature ceramics TaB2 boride. Vacuum, 2020, 177, 109427.	3.5	26
17	Structural, elastic, anisotropic and thermodynamic properties of the caged intermetallics RETi2Al20 (RE= La, Ce, Gd and Ho): A first-principles study. Solid State Sciences, 2019, 89, 121-129.	3.2	25
18	First-principles investigation of the mechanical, anisotropic and thermodynamic properties of RET2Al20 (RE=La, Ce, Gd, T=Ti, V) intermetallics. Physica B: Condensed Matter, 2019, 554, 64-71.	2.7	22

#	Article	IF	Citations
19	Theoretical prediction of new structure, mechanical properties, anisotropy in elasticity and thermodynamic properties of Mo3Ge material. Vacuum, 2019, 170, 108978.	3.5	21
20	The mechanism of elastic and electronic properties of Tungsten Silicide (5/3) with vacancy defect from the first-principles calculations. Vacuum, 2020, 174, 109192.	3.5	20
21	Insight into the elastic anisotropy and thermodynamics properties of Tantalum borides. Vacuum, 2019, 169, 108883.	3.5	19
22	Insight into the elastic anisotropy of BiM2VO6 (M= Mg, Ca and Cu) ceramics the first-principles calculations. Vacuum, 2019, 166, 26-31.	3.5	19
23	First-principles study of the lattice vibration, elastic anisotropy and thermodynamical properties of Tantalum Silicide with the different crystal structures. Vacuum, 2021, 191, 110410.	3.5	19
24	Insight into the pressure effect on the structural stability and physical properties of cubic sesquioxides X2O3 (X= Sc, Y and In). Vacuum, 2019, 168, 108855.	3.5	15
25	Investigation of the structural stability, mechanical, and thermodynamic properties of Hf5BSi3 silicide with vacancies defects. Vacuum, 2021, 191, 110349.	3.5	15
26	The elastic anisotropy, electronic and thermodynamic properties of TM5Si4 (TM= Sc, Y, Ti, Zr and Hf) silicides from first-principles calculations. Vacuum, 2021, 194, 110586.	3.5	15
27	First-principles investigation on the mechanical, vibrational and thermodynamics properties of AuCu3-type X3Sc (X=Al, Ga, In) intermetallic compounds. Computational Materials Science, 2015, 106, 38-44.	3.0	14
28	First-principles investigation on the vacancy dependence on the optical and electronic properties of Bi2S3 semiconductor ceramics. Vacuum, 2020, 181, 109759.	3.5	14
29	Anisotropy of the elasticity, thermal conductivity and optical parameters of Cmcm and Pmcn BiMg2VO6 ceramics. Vacuum, 2019, 159, 218-227.	3.5	13
30	Phase stability, elastic, anisotropic and thermodynamic properties of HoT₂Al₂₀ (Tâ€‰=â€‰Ti, V, Cr) intermetallic cage compounds. Molecular Simulation, 2019, 45, 833-840.	2.0	10
31	First-principle study of the physics properties of DO3â€“Mg3Nd compound under high pressure. Superlattices and Microstructures, 2014, 73, 359-369.	3.1	6
32	First-Principles Investigation of Structural Stability, Mechanical, Anisotropic, and Thermodynamic Properties of CeT₂Al₂₀ Intermetallics. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2018, 73, 1157-1167.	1.5	5
33	The elasticity, anisotropy and thermodynamic properties of binary and ternary Bâ€“Sc compounds: First-principles calculations. Solid State Communications, 2022, 353, 114869.	1.9	5
34	Exploring the electronic, mechanical, anisotropic, and optical properties of ternary silicides <scp>TM₂Si₂Ys</scp> (<scp>TM</scp>Â=ÂCu, Ir, Os, Pt, Pd, Rh, Ru) from a first principles investigations. International Journal of Quantum Chemistry, 2022, 122, .	2.0	4
35	The effects of vacancies defects and oxygen atoms occupation on physical properties of chromium silicide from a first-principles calculations. Solid State Communications, 2021, 340, 114535.	1.9	3
36	Exploring of the structural stability, mechanical, electronic and optical properties of hydrogenated RE5Si4 (RE=Sc and Y) from first-principles calculations. Vacuum, 2022, 203, 111280.	3.5	3

#	Article	IF	Citations
37	Insight into the structural stability and overall performances of V2REAl20 ternary phases. Vacuum, 2021, 188, 110202.	3.5	0