

Yuelel Bai

List of Publications by Year in descending order

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Version: 2024-02-01

34
papers

1,600
citations

279487

23
h-index

377514

34
g-index

35
all docs

35
docs citations

35
times ranked

1466
citing authors

#	ARTICLE	IF	CITATIONS
1	Dependence of elastic and optical properties on surface terminated groups in two-dimensional MXene monolayers: a first-principles study. RSC Advances, 2016, 6, 35731-35739.	1.7	224
2	Density functional theory insights into ternary layered boride MoAlB. Acta Materialia, 2017, 132, 69-81.	3.8	113
3	Improving the electrochemical properties of MXene Ti ₃ C ₂ multilayer for Li-ion batteries by vacuum calcination. Electrochimica Acta, 2018, 265, 140-150.	2.6	99
4	General trends in the structural, electronic and elastic properties of the M ₃ AlC ₂ phases (M =) Tj ETQq0 0 0 rgBT /Oyerlock 10 Tf 50 622	1.4	86
5	Microstructures, Electrical, Thermal, and Mechanical Properties of Bulk $\langle \text{Ti} \rangle \langle \text{AlC} \rangle$ Synthesized by Self-Propagating High-Temperature Combustion Synthesis with Pseudo Hot Isostatic Pressing. Journal of the American Ceramic Society, 2012, 95, 358-364.	1.9	78
6	Rapid synthesis of bulk Ti ₂ AlC by self-propagating high temperature combustion synthesis with a pseudo-hot isostatic pressing process. Journal of Materials Research, 2009, 24, 2528-2535.	1.2	76
7	Enhanced reversible Li-ion storage in Si@Ti ₃ C ₂ MXene nanocomposite. Electrochemistry Communications, 2018, 97, 16-21.	2.3	66
8	Rapid synthesis, electrical, and mechanical properties of polycrystalline Fe ₂ AlB ₂ bulk from elemental powders. Journal of the American Ceramic Society, 2017, 100, 4407-4411.	1.9	59
9	Effect of Ti ₃ AlC ₂ precursor on the electrochemical properties of the resulting MXene Ti ₃ C ₂ for Li-ion batteries. Ceramics International, 2018, 44, 11591-11596.	2.3	58
10	Chemical bonding and elastic properties of Ti ₃ AC ₂ phases (A=Si, Ge, and Sn): A first-principle study. Solid State Sciences, 2010, 12, 1220-1225.	1.5	57
11	High temperature physical and mechanical properties of large-scale Ti ₂ AlC bulk synthesized by self-propagating high temperature combustion synthesis with pseudo hot isostatic pressing. Journal of the European Ceramic Society, 2013, 33, 2435-2445.	2.8	56
12	Phase stability and weak metallic bonding within ternary layered borides CrAlB, Cr ₂ AlB ₂ , Cr ₃ AlB ₄ , and Cr ₄ AlB ₆ . Journal of the American Ceramic Society, 2019, 102, 3715-3727.	1.9	55
13	Further surface modification by carbon coating for in-situ growth of Fe ₃ O ₄ nanoparticles on MXene Ti ₃ C ₂ multilayers for advanced Li-ion storage. Electrochimica Acta, 2018, 289, 228-237.	2.6	51
14	Ab initio calculations for properties of MAX phases Ti ₂ InC, Zr ₂ InC, and Hf ₂ InC. Solid State Communications, 2009, 149, 564-566.	0.9	49
15	Density Functional Theory Study of $M_{n+1}AX_n$ Phases: A Review. Critical Reviews in Solid State and Materials Sciences, 2019, 44, 56-107.	6.8	46
16	High-temperature mechanical properties and thermal shock behavior of ternary-layered MAB phases Fe ₂ AlB ₂ . International Journal of Refractory Metals and Hard Materials, 2019, 80, 151-160.	1.7	45
17	Polymorphism of newly discovered Ti ₄ GaC ₃ : A first-principles study. Acta Materialia, 2011, 59, 5523-5533.	3.8	39
18	Ab initio study of the bonding and elastic properties of Ti ₂ CdC. Solid State Sciences, 2010, 12, 144-147.	1.5	31

#	ARTICLE	IF	CITATIONS
19	An ab initio study of the electronic structure and elastic properties of the newly discovered ternary carbide. Solid State Communications, 2009, 149, 2156-2159.	0.9	30
20	First-principles investigation of Na ⁺ Ag co-doping effect on electronic properties in p-type ZnO. Chinese Physics B, 2010, 19, 047101.	0.7	27
21	Phase Stability, Electronic Structure, Compressibility, Elastic and Optical Properties of a Newly Discovered Ti_3SnC_2 : A First-Principle Study. Journal of the American Ceramic Society, 2011, 94, 3907-3914.	1.9	27
22	Density-functional-theory predictions of mechanical behaviour and thermal properties as well as experimental hardness of the Ga-bilayer $\text{Mo}_2\text{Ga}_2\text{C}$. Journal of Advanced Ceramics, 2022, 11, 273-282.	8.9	26
23	Effect of transition metal (M) and M ⁺ C slabs on equilibrium properties of Al-containing MAX carbides: An ab initio study. Computational Materials Science, 2014, 91, 28-37.	1.4	24
24	An ab initio study on compressibility of Al-containing MAX-phase carbides. Journal of Applied Physics, 2013, 114, 173709.	1.1	22
25	DFT Predictions of Crystal Structure, Electronic Structure, Compressibility, and Elastic Properties of Hf ⁺ Al ⁺ C Carbides. Journal of the American Ceramic Society, 2016, 99, 3449-3457.	1.9	22
26	Experimental and DFT insights into elastic, magnetic, electrical, and thermodynamic properties of MAB ⁺ phase Fe_2AlB_2 . Journal of the American Ceramic Society, 2020, 103, 5837-5851.	1.9	22
27	Thermal shock behavior of Ti_2AlC from 200 ⁺ C to 1400 ⁺ C. Journal of the American Ceramic Society, 2017, 100, 4190-4198.	1.9	22
28	Lattice dynamics of Al ⁺ -containing MAX ⁺ phase carbides: a first-principle study. Journal of Raman Spectroscopy, 2015, 46, 784-794.	1.2	21
29	In situ synthesis and mechanical properties of bulk $\text{Ti}_3\text{SiC}_2/\text{TiC}$ composites by SHS/PHIP. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 4554-4559.	2.6	20
30	Growth morphology and microstructural characterization of nonstoichiometric Ti_2AlC bulk synthesized by self-propagating high temperature combustion synthesis with pseudo hot isostatic pressing. International Journal of Refractory Metals and Hard Materials, 2014, 45, 58-63.	1.7	17
31	Oxidation behavior of high-purity nonstoichiometric Ti_2AlC powders in flowing air. Journal of Materials Research, 2017, 32, 2747-2754.	1.2	11
32	Friction and wear behavior of Fe_2AlB_2 nanolaminates against GCr15 steel counterpart. Ceramics International, 2020, 46, 19912-19918.	2.3	11
33	Ruthenium on Alkali ⁺ -Exfoliated $\text{Ti}_3(\text{Al}_{0.8}\text{Sn}_{0.2})\text{C}_2$ MAX Phase Catalyses Reduction of 4-Nitroaniline with Ammonia Borane. ChemCatChem, 2021, 13, 3470-3478.	1.8	6
34	Kinetic Monte Carlo simulation of ZrO_2 coating deposited by EB ⁺ PVD. Journal of the American Ceramic Society, 2022, 105, 830-841.	1.9	4