Mingyu Hu

List of Publications by Year
in descending order

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30	914	430874	454955
papers	citations	18	30
		h-index	g-index

30	30	30	1084
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ultralow Thermal Conductivity and Ultrahigh Thermal Expansion of Single-Crystal Organicâ€“Inorganic Hybrid Perovskite CH₃NH₃PbX₃ (X = Cl, Br, I). Journal of Physical Chemistry C, 2018, 122, 15973-15978.	3.1	93
2	Sub-1.4eV bandgap inorganic perovskite solar cells with long-term stability. Nature Communications, 2020, 11, 151.	12.8	92
3	Thermal expansion performance and intrinsic lattice thermal conductivity of ferroelastic RETaO₄ ceramics. Journal of the American Ceramic Society, 2019, 102, 4809-4821.	3.8	88
4	Tailoring the anisotropic mechanical properties of hexagonal M7X3 (M=Fe, Cr, W, Mo; X=C, B) by multialloying. Acta Materialia, 2019, 169, 193-208.	7.9	74
5	Mechanical and Optical Properties of Cs₄BX₆ (B = Pb, Sn; X = Cl, Br, I) Zero-Dimension Perovskites. Journal of Physical Chemistry C, 2017, 121, 27053-27058.	3.1	61
6	High-performance methylammonium-free ideal-band-gap perovskite solar cells. Matter, 2021, 4, 1365-1376.	10.0	51
7	Enhanced Thermoelectric Performance in Lead-Free Inorganic CsSn_{1â€“x}Ge_xI₃ Perovskite Semiconductors. Journal of Physical Chemistry C, 2020, 124, 11749-11753.	3.1	45
8	Mechanical and thermal properties of RETaO4 (RE = Yb, Lu, Sc) ceramics with monoclinic-prime phase. Journal of Materials Science and Technology, 2020, 52, 20-28.	10.7	40
9	Thermo-mechanical properties of fluorite Yb3TaO7 and Yb3NbO7 ceramics with glass-like thermal conductivity. Journal of Alloys and Compounds, 2019, 788, 1231-1239.	5.5	34
10	Effect of Grain Size on the Fracture Behavior of Organic-Inorganic Halide Perovskite Thin Films for Solar Cells. Scripta Materialia, 2020, 185, 47-50.	5.2	32
11	Theoretical and experimental investigations of mechanical properties for polymorphous YTaO₄ceramics. Journal of the American Ceramic Society, 2019, 102, 7656-7664.	3.8	30
12	Mechanisms of exceptional grain growth and stability in formamidinium lead triiodide thin films for perovskite solar cells. Acta Materialia, 2020, 193, 10-18.	7.9	27
13	Investigation on microstructures and thermo-physical properties of ferroelastic (Y1-xDyx)TaO4 ceramics. Materialia, 2018, 4, 478-486.	2.7	25
14	Elaborating the phases and mechanical properties of multiphase alloy: Experimental two-dimensional mapping combined with theoretical calculations. Materials Characterization, 2017, 134, 347-353.	4.4	24
15	Features of crystal structures and thermoâ€mechanical properties of weberites RE₃NbO₇ (RE=La, Nd, Sm, Eu, Gd) ceramics. Journal of the American Ceramic Society, 2021, 104, 404-412.	3.8	22
16	Achieved limit thermal conductivity and enhancements of mechanical properties in fluorite RE3NbO7 via entropy engineering. Applied Physics Letters, 2021, 118, .	3.3	19
17	Exploring accurate structure, composition and thermophysical properties of Î· carbides in 17.90â€¯wt% W-4.15â€¯wt% Cr-1.10â€¯wt% V-0.69â€¯wt% C steel. Scripta Materialia, 2018, 154, 149-153.	5.2	18
18	Investigation of the thermophysical properties of (Y1-xYbx)TaO4 ceramics. Journal of the European Ceramic Society, 2020, 40, 3111-3121.	5.7	18

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19	A first-principles calculation of structural, mechanical, thermodynamic and electronic properties of binary Niâ€“Y compounds. RSC Advances, 2018, 8, 41575-41586.	3.6	17
20	Probing the mechanical properties of ordered and disordered Pt-Ir alloys by first-principles calculations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 405, 127424.	2.1	17
21	The effect of ZrO₂ alloying on the microstructures and thermal properties of DyTaO₄ for highâ€temperature application. Journal of the American Ceramic Society, 2019, 102, 889-895.	3.8	16
22	Electron-beam-induced cracking in organic-inorganic halide perovskite thin films. Scripta Materialia, 2020, 187, 88-92.	5.2	16
23	The rattler effect of phonon propagation in defect-fluorite Dy3(Nb1-xTix)O7-x/2. Ceramics International, 2018, 44, 21998-22002.	4.8	9
24	The effects of hydroxyl by water addition on the photoluminescence of zero-dimensional perovskites Cs4PbBr6 nanocrystals. Journal of Luminescence, 2020, 221, 116986.	3.1	8
25	Investigation on the stability, electronic, optical, and mechanical properties of novel calcium carbonate hydrates via firstâ€principles calculations. International Journal of Quantum Chemistry, 2020, 120, e26219.	2.0	8
26	Enhanced thermoelectric performance in inorganic CsSnI3 perovskite by doping with PbI2. Materials Letters, 2022, 308, 131127.	2.6	8
27	Antioxidative solution processing yields exceptional Sn(II) stability for sub-1.4 eV bandgap inorganic perovskite solar cells. Journal of Energy Chemistry, 2022, , .	12.9	8
28	Multiphonon scattering mechanisms to limit thermal conductivity in weberite RE3NbO7: A case study of (La1-xGdx)3NbO7 ceramics. Ceramics International, 2021, 47, 23222-23233.	4.8	6
29	On the multiplying factor for the estimation of the average grain size in thin films. Scripta Materialia, 2021, 196, 113748.	5.2	4
30	Origins of high fracture toughness and glassâ€like thermal conductivity in Zrâ€“Taâ€“O composites. Journal of the American Ceramic Society, 2022, 105, 6508-6516.	3.8	4