Xian-Hu Zha

List of Publications by Year in Descending Order

33 papers	1,826 citations	18 h-index	37 g-index
37 ext. papers	2,439 ext. citations	6.5 avg, IF	4.69 L-index

#	Paper	IF	Citations
33	A general Lewis acidic etching route for preparing MXenes with enhanced electrochemical performance in non-aqueous electrolyte. *Nature Materials*, **2020**, 19, 894-899	27	368
32	First-principles study of magnetism in some novel MXene materials.. *RSC Advances*, **2020**, 10, 44430-44436	3.7	1
31	Two-dimensional semiconducting LuCT (T = F, OH) MXene with low work function and high carrier mobility. *Nanoscale*, **2020**, 12, 3795-3802	7.7	14
30	Mo2B, an MBene member with high electrical and thermal conductivities, and satisfactory performances in lithium ion batteries. *Nanoscale Advances*, **2020**, 2, 347-355	5.1	11
29	Multielemental single-atom-thick layers in nanolaminated V(Sn,) C (= Fe, Co, Ni, Mn) for tailoring magnetic properties. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 820-825	11.5	42
28	Structural, mechanical and electronic properties of two-dimensional chlorine-terminated transition metal carbides and nitrides. *Journal of Physics Condensed Matter*, **2020**, 32, 135302	1.8	6
27	Theoretical study on the electrical and mechanical properties of MXene multilayer structures through strain regulation. *Chemical Physics Letters*, **2020**, 760, 137997	2.5	6
26	Theoretical exploration on the vibrational and mechanical properties of M3C2/M3C2T2 MXenes. *International Journal of Quantum Chemistry*, **2020**, 120, e26409	2.1	1
25	Two-Dimensional Hydroxyl-Functionalized and Carbon-Deficient Scandium Carbide, ScC OH, a Direct Band Gap Semiconductor. *ACS Nano*, **2019**, 13, 1195-1203	16.7	24
24	On-Demand Preparation of Phase-Dominated Tungsten Films for Highly Qualified Thermal Reflectors. *Advanced Materials Interfaces*, **2019**, 6, 1900031	4.6	4
23	Tuning the Electrical Conductivity of Ti2CO2 MXene by Varying the Layer Thickness and Applying Strains. *Journal of Physical Chemistry C*, **2019**, 123, 6802-6811	3.8	25
22	Single-Atom-Thick Active Layers Realized in Nanolaminated Ti(AlCu)C and Its Artificial Enzyme Behavior. *ACS Nano*, **2019**, 13, 9198-9205	16.7	31
21	Non-MAX Phase Precursors for MXenes **2019**, 53-68		5
20	Bipolar magnetic semiconductors among intermediate states during the conversion from ScC(OH) to ScCO MXene. *Nanoscale*, **2018**, 10, 8763-8771	7.7	18
19	Designing a reductive hybrid membrane to selectively capture noble metallic ions during oil/water emulsion separation with further function enhancement. *Journal of Materials Chemistry A*, **2018**, 6, 10217-10225	13	20
18	A theoretical investigation and synthesis of layered ternary carbide system U-Al-C. *Ceramics International*, **2018**, 44, 1646-1652	5.1	8
17	First-principles study on the electrical and thermal properties of the semiconducting Sc(CN)F MXene.. *RSC Advances*, **2018**, 8, 22452-22459	3.7	14

16	Structures and Mechanical and Electronic Properties of the Ti2CO2 MXene Incorporated with Neighboring Elements (Sc, V, B and N). *Journal of Electronic Materials*, **2017**, 46, 2460-2466	1.9	42
15	Controllable magnitude and anisotropy of the electrical conductivity of HfCO MXene. *Journal of Physics Condensed Matter*, **2017**, 29, 165701	1.8	22
14	Theoretical investigations on helium trapping in the Zr/Ti2AlC interface. *Surface and Coatings Technology*, **2017**, 322, 19-24	4.4	14
13	Synthesis and Electrochemical Properties of Two-Dimensional Hafnium Carbide. *ACS Nano*, **2017**, 11, 3841-3850	16.7	229
12	Electronic and Transport Properties of Ti2CO2 MXene Nanoribbons. *Journal of Physical Chemistry C*, **2016**, 120, 17143-17152	3.8	35
11	Promising electron mobility and high thermal conductivity in Sc2CT2 (T = F, OH) MXenes. *Nanoscale*, **2016**, 8, 6110-7	7.7	141
10	Intrinsic Structural, Electrical, Thermal, and Mechanical Properties of the Promising Conductor Mo2C MXene. *Journal of Physical Chemistry C*, **2016**, 120, 15082-15088	3.8	98
9	A Two-Dimensional Zirconium Carbide by Selective Etching of Al3C3 from Nanolaminated Zr3Al3C5. *Angewandte Chemie - International Edition*, **2016**, 55, 5008-13	16.4	247
8	A Two-Dimensional Zirconium Carbide by Selective Etching of Al3C3 from Nanolaminated Zr3Al3C5. *Angewandte Chemie*, **2016**, 128, 5092-5097	3.6	55
7	The thermal and electrical properties of the promising semiconductor MXene Hf2CO2. *Scientific Reports*, **2016**, 6, 27971	4.9	115
6	Electronic structures and mechanical properties of Al(111)/ZrB2(0001) heterojunctions from first-principles calculation. *Molecular Physics*, **2015**, 113, 1794-1801	1.7	18
5	New insight into the helium-induced damage in MAX phase Ti3AlC2 by first-principles studies. *Journal of Chemical Physics*, **2015**, 143, 114707	3.9	22
4	Role of the surface effect on the structural, electronic and mechanical properties of the carbide MXenes. *Europhysics Letters*, **2015**, 111, 26007	1.6	161
3	Point defect weakened thermal contraction in monolayer graphene. *Journal of Chemical Physics*, **2014**, 141, 064705	3.9	11
2	Tuning thermal expansions of zinc oxide sheets by varying the layer thickness. *Europhysics Letters*, **2014**, 107, 26007	1.6	7
1	Remarkable Thermal Contraction in Small Size Single-Walled Boron Nanotubes. *Communications in Computational Physics*, **2014**, 16, 201-212	2.4	4