

Aiguo Zhou

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/2408741/aiguo-zhou-publications-by-year.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

100
papers

6,570
citations

38
h-index

80
g-index

103
ext. papers

8,267
ext. citations

5.3
avg, IF

6.11
L-index

#	Paper	IF	Citations
100	Density-functional-theory predictions of mechanical behaviour and thermal properties as well as experimental hardness of the Ga-bilayer Mo ₂ Ga ₂ C. <i>Journal of Advanced Ceramics</i> , 2022 , 11, 273-282	10.7	2
99	Responses to comments on the paper Two-dimensional Sc ₂ C: A reversible and high capacity hydrogen storage material predicted by first-principles calculations <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 9829-9834	6.7	
98	Simple Method to Construct a Directional Strain Sensor Based on d-Mo ₂ CTx@Orthotropic Textile Network Structure. <i>Materials Letters</i> , 2022 , 132559	3.3	0
97	From structural ceramics to 2D materials with multi-applications: A review on the development from MAX phases to MXenes. <i>Journal of Advanced Ceramics</i> , 2021 , 10, 1194-1242	10.7	8
96	V ₂ CTx and Ti ₃ C ₂ Tx MXenes Nanosheets for Gas Sensing. <i>ACS Applied Nano Materials</i> , 2021 , 4, 6257-6268	5.6	9
95	Enhanced Reversible Capacity and Cyclic Performance of Lithium-Ion Batteries Using SnO ₂ Interpenetrated MXene V ₂ C Architecture as Anode Materials. <i>Energy Technology</i> , 2021 , 9, 2000753	3.5	8
94	High-Performance Wearable Strain Sensor Based on MXene@Cotton Fabric with Network Structure. <i>Nanomaterials</i> , 2021 , 11,	5.4	8
93	Effects of water purifying material waste and red mud on performance of magnesium phosphate cement. <i>Construction and Building Materials</i> , 2021 , 303, 124563	6.7	1
92	Research progress on construction and energy storage performance of MXene heterostructures. <i>Journal of Energy Chemistry</i> , 2021 , 62, 220-242	12	10
91	Effect of electrolyte on supercapacitor performance of two-dimensional molybdenum carbide (Mo ₂ CTx) MXene prepared by hydrothermal etching. <i>Applied Surface Science</i> , 2021 , 568, 150971	6.7	5
90	Facile Preparation of MXene/Poly(vinyl alcohol)/N-(2-Hydroxyethyl Acrylamide) Hydrogels with High Tensile Strength for Strain Sensors. <i>Journal of Nanoelectronics and Optoelectronics</i> , 2021 , 16, 1834-1843	1.3	0
89	Synthesis of two-dimensional carbide Mo ₂ CTx MXene by hydrothermal etching with fluorides and its thermal stability. <i>Ceramics International</i> , 2020 , 46, 19550-19556	5.1	30
88	MXenes for K-Ion Batteries 2020 , 293-312		
87	Responses to comments on the paper Two-dimensional Sc ₂ C: A reversible and high capacity hydrogen storage material predicted by first-principles calculations <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 7257-7262	6.7	2
86	Thermal conductivity and electrical transport properties of double-A-layer MAX phase Mo ₂ Ga ₂ C. <i>Materials Research Letters</i> , 2020 , 8, 158-164	7.4	14
85	Surface reformation of 2D MXene by in situ LaF ₃ -decorated and enhancement of energy storage in lithium-ion batteries. <i>Journal of Materials Science: Materials in Electronics</i> , 2020 , 31, 6735-6743	2.1	6
84	Comment on MoS ₂ /Ti ₃ C ₂ heterostructure for efficient visible-light photocatalytic hydrogen generation <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 13559-13562	6.7	1

83	SnO ₂ Quantum Dots Interspersed d-Ti ₃ C ₂ T _x MXene Heterostructure with Enhanced Performance for Lithium Ion Battery. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 116522	3.9	5
82	First-principles calculations of stabilities and physical properties of ternary niobium borocarbides and tantalum borocarbides. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2020 , 69, 116201	0.6	2
81	Pressure difference-induced synthesis of P-doped carbon nanobowls for high-performance supercapacitors. <i>Chemical Engineering Journal</i> , 2020 , 385, 123858	14.7	39
80	The preparation of V ₂ CT _x by facile hydrothermal-assisted etching processing and its performance in lithium-ion battery. <i>Journal of Materials Research and Technology</i> , 2020 , 9, 984-993	5.5	27
79	Preparation, mechanical and thermal characteristics of d-Ti ₃ C ₂ /PVA film. <i>Materials Today Communications</i> , 2020 , 22, 100799	2.5	10
78	Polyaniline-Decorated Supramolecular Hydrogel with Tough, Fatigue-Resistant, and Self-Healable Performances for All-In-One Flexible Supercapacitors. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 9736-9745	9.5	52
77	Synthesis and electrochemical properties of V ₂ C MXene by etching in opened/closed environments. <i>Journal of Advanced Ceramics</i> , 2020 , 9, 749-758	10.7	30
76	Two-dimensional vanadium carbide (V ₂ CT) MXene as supercapacitor electrode in seawater electrolyte. <i>Chinese Chemical Letters</i> , 2020 , 31, 984-987	8.1	37
75	The effect of two-dimensional d-Ti ₃ C ₂ on the mechanical and thermal conductivity properties of thermoplastic polyurethane composites. <i>Polymer Composites</i> , 2020 , 41, 350-359	3	19
74	Bioactive tetracalcium phosphate/magnesium phosphate composite bone cement for bone repair. <i>Journal of Biomaterials Applications</i> , 2019 , 34, 239-249	2.9	2
73	Kirigami Patterning of MXene/Bacterial Cellulose Composite Paper for All-Solid-State Stretchable Micro-Supercapacitor Arrays. <i>Advanced Science</i> , 2019 , 6, 1900529	13.6	143
72	Facile preparation of BiOCl/Ti ₃ C ₂ hybrid photocatalyst with enhanced visible-light photocatalytic activity. <i>Functional Materials Letters</i> , 2019 , 12, 1850100	1.2	16
71	Self-Assemble and In-Situ Formation of Laponite RDS-Decorated d-Ti ₃ C ₂ T _x Hybrids for Application in Lithium-ion Battery. <i>ChemistrySelect</i> , 2019 , 4, 10694-10700	1.8	5
70	TiC MXene-Based Sensors with High Selectivity for NH ₃ Detection at Room Temperature. <i>ACS Sensors</i> , 2019 , 4, 2763-2770	9.2	150
69	Hot-pressing Sintering of Double-A-layer MAX Phase Mo ₂ Ga ₂ C. <i>Wuji Cailiao Xuebao/Journal of Inorganic Materials</i> , 2019 , 296	1	2
68	Theoretical calculations of stabilities and properties of transition metal borocarbides TM ₃ B ₃ C and TM ₄ B ₃ C ₂ compound. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2019 , 68, 096201	0.6	
67	Self-Assembled 3D MnO ₂ Aerogel as Sulfur Host for Lithium-Sulfur Battery Cathodes. <i>ACS Applied Energy Materials</i> , 2019 , 2, 705-714	6.1	44
66	Affecting mechanism of chitosan on water resistance of magnesium phosphate cement. <i>International Journal of Applied Ceramic Technology</i> , 2018 , 15, 514-521	2	9

65	Synthesis and Electrochemical Properties of Two-Dimensional RGO/Ti ₃ C ₂ MXene Nanocomposites. <i>Nanomaterials</i> , 2018 , 8,	5.4	58
64	Electrochemical impedance spectroscopy (EIS) used to evaluate influence of different external pressures, curing ages and self-healing environments on the self-healing behavior of engineered cementitious composites (ECC). <i>Construction and Building Materials</i> , 2018 , 188, 153-160	6.7	9
63	Ground-state structures, physical properties and phase diagram of carbon-rich nitride CN. <i>Journal of Physics Condensed Matter</i> , 2018 , 30, 385402	1.8	7
62	Seawater electrolyte-mediated high volumetric MXene-based electrochemical symmetric supercapacitors. <i>Dalton Transactions</i> , 2018 , 47, 8676-8682	4.3	27
61	Unexpected ground-state structures and properties of carbon nitride C ₃ N at ambient and high pressures. <i>Materials and Design</i> , 2018 , 140, 45-53	8.1	2
60	Novel Li ₄ Ti ₅ O ₁₂ /Ti ₃ C ₂ T _x nanocomposite as a high rate anode material for lithium ion batteries. <i>Journal of Alloys and Compounds</i> , 2018 , 735, 530-535	5.7	16
59	Carbon dioxide adsorption of two-dimensional carbide MXenes. <i>Journal of Advanced Ceramics</i> , 2018 , 7, 237-245	10.7	58
58	The Synthesis Process and Thermal Stability of V ₂ C MXene. <i>Materials</i> , 2018 , 11,	3.5	80
57	The influence of carbon spheres on thermal and mechanical properties of epoxy composites. <i>Journal of Polymer Research</i> , 2018 , 25, 1	2.7	7
56	Synthesis mechanisms and thermal stability of ternary carbide Mo ₂ Ga ₂ C. <i>Ceramics International</i> , 2018 , 44, 22289-22296	5.1	13
55	High photoluminescence quantum yield of 18.7% by using nitrogen-doped Ti ₃ C ₂ MXene quantum dots. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 6360-6369	7.1	104
54	Preparation of High-Purity V ₂ C MXene and Electrochemical Properties as Li-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2017 , 164, A709-A713	3.9	169
53	Non-isothermal crystallization and thermal degradation kinetics of MXene/linear low-density polyethylene nanocomposites. <i>E-Polymers</i> , 2017 , 17, 373-381	2.7	20
52	Preparation of Ti ₃ C ₂ and Ti ₂ C MXenes by fluoride salts etching and methane adsorptive properties. <i>Applied Surface Science</i> , 2017 , 416, 781-789	6.7	213
51	Synthesis and oxidation resistance of V ₂ AlC powders by molten salt method. <i>International Journal of Applied Ceramic Technology</i> , 2017 , 14, 873-879	2	36
50	MoS ₂ -Decorated Ti ₃ C ₂ MXene Nanosheet as Anode Material in Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2017 , 164, A2654-A2659	3.9	52
49	Synthesis of NaV ₆ O ₁₅ nanorods via thermal oxidation of sodium-intercalated 2D V ₂ CT _x and their electrochemical properties as anode for lithium-ion batteries. <i>Electrochimica Acta</i> , 2017 , 248, 178-187	6.7	28
48	Hydrophobic, Flexible, and Lightweight MXene Foams for High-Performance Electromagnetic-Interference Shielding. <i>Advanced Materials</i> , 2017 , 29, 1702367	24	903

47	High temperature oxidation resistance of Ti ₃ SiC ₂ in air and low oxygen atmosphere. <i>International Journal of Applied Ceramic Technology</i> , 2017 , 14, 851-859	2	4
46	Preparation and Photocatalytic Performance of Ti ₃ C ₂ /TiO ₂ /CuO Ternary Nanocomposites. <i>Journal of Nanomaterials</i> , 2017 , 2017, 1-5	3.2	7
45	Synthesis and electrochemical performance of Ti ₃ C ₂ T _x with hydrothermal process. <i>Electronic Materials Letters</i> , 2016 , 12, 702-710	2.9	157
44	Effects of 2-D transition metal carbide Ti ₂ CT _x on properties of epoxy composites. <i>RSC Advances</i> , 2016 , 6, 87341-87352	3.7	57
43	Structural Characterization of Microwave-Assisted Solution-Synthesized Strontium-Substituted Hydroxyapatite. <i>Nano</i> , 2016 , 11, 1650115	1.1	1
42	Preparation and methane adsorption of two-dimensional carbide Ti ₂ C. <i>Adsorption</i> , 2016 , 22, 915-922	2.6	57
41	Synthesis of urchin-like rutile titania carbon nanocomposites by iron-facilitated phase transformation of MXene for environmental remediation. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 489-499	1.3	123
40	Structural Transformation of MXene (V ₂ C, Cr ₂ C, and Ta ₂ C) with O Groups during Lithiation: A First-Principles Investigation. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 74-81	9.5	120
39	Preparation, mechanical and anti-friction performance of MXene/polymer composites. <i>Materials and Design</i> , 2016 , 92, 682-689	8.1	183
38	Synthesis and Gas Adsorption Properties of Carbide-Derived Carbons from Titanium Tin Carbide. <i>Nano</i> , 2016 , 11, 1650040	1.1	2
37	Tribological properties of Ti ₃ SiC ₂ coupled with different counterfaces. <i>Ceramics International</i> , 2015 , 41, 6950-6955	5.1	35
36	Electrochemical performance of Ti ₃ C ₂ supercapacitors in KOH electrolyte. <i>Journal of Advanced Ceramics</i> , 2015 , 4, 130-134	10.7	57
35	Effects of FeNi-phosphorus-carbon system on crystal growth of diamond under high pressure and high temperature conditions. <i>Chinese Physics B</i> , 2015 , 24, 038101	1.2	11
34	Enhanced supercapacitive performance of delaminated two-dimensional titanium carbide/carbon nanotube composites in alkaline electrolyte. <i>Journal of Power Sources</i> , 2015 , 284, 38-43	8.9	154
33	Hydrothermal synthesis of TiO ₂ /Ti ₃ C ₂ nanocomposites with enhanced photocatalytic activity. <i>Materials Letters</i> , 2015 , 150, 62-64	3.3	157
32	Novel Hierarchical TiO ₂ /C Nanocomposite with Enhanced Photocatalytic Performance. <i>Nano</i> , 2015 , 10, 1550064	1.1	18
31	Synthesis and thermal stability of two-dimensional carbide MXene Ti ₃ C ₂ . <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2015 , 191, 33-40	3.1	370
30	Preparation and tribological properties of surface-modified ZnS nanoparticles. <i>Lubrication Science</i> , 2015 , 27, 241-250	1.3	11

29	Effect of MXene (Nano-Ti ₃ C ₂) on Early-Age Hydration of Cement Paste. <i>Journal of Nanomaterials</i> , 2015 , 2015, 1-8	3.2	5
28	Preparation and Microstructure Analysis of TiC-Derived Carbons with Hierarchical Pore Structure. <i>Journal of Nanomaterials</i> , 2015 , 2015, 1-7	3.2	
27	Synthesis and characterization of novel Ti ₃ SiC ₂ /BN composites. <i>Diamond and Related Materials</i> , 2014 , 43, 29-33	3.5	15
26	Microwave-assisted synthesis of flower-like AgBiOCl nanocomposite with enhanced visible-light photocatalytic activity. <i>Materials Letters</i> , 2014 , 136, 295-297	3.3	22
25	Preparation of MXene-Cu ₂ O nanocomposite and effect on thermal decomposition of ammonium perchlorate. <i>Solid State Sciences</i> , 2014 , 35, 62-65	3.4	71
24	Two-dimensional Ti ₃ C ₂ as anode material for Li-ion batteries. <i>Electrochemistry Communications</i> , 2014 , 47, 80-83	5.1	316
23	Unique lead adsorption behavior of activated hydroxyl group in two-dimensional titanium carbide. <i>Journal of the American Chemical Society</i> , 2014 , 136, 4113-6	16.4	813
22	Two-dimensional Sc ₂ C: A reversible and high-capacity hydrogen storage material predicted by first-principles calculations. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 10606-10612	6.7	120
21	Synthesis and Mechanism of Tetracalcium Phosphate from Nanocrystalline Precursor. <i>Journal of Nanomaterials</i> , 2014 , 2014, 1-11	3.2	12
20	Synthesis of high pure Ti ₃ AlC ₂ and Ti ₂ AlC powders from TiH ₂ powders as Ti source by tube furnace. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2013 , 28, 882-887	1	31
19	MXene: a new family of promising hydrogen storage medium. <i>Journal of Physical Chemistry A</i> , 2013 , 117, 14253-60	2.8	298
18	Corrosion behavior of Ti ₃ AlC ₂ in molten KOH at 700 °C. <i>Journal of Advanced Ceramics</i> , 2013 , 2, 313-317	10.7	11
17	Nonlinear elastic deformation of magnesium and cobalt by Preisach-Mayergoyz model. <i>Transactions of Nonferrous Metals Society of China</i> , 2012 , 22, 2220-2225	3.3	
16	In situ synthesis of cBN/Ti ₃ AlC ₂ composites by high-pressure and high-temperature technology. <i>Diamond and Related Materials</i> , 2012 , 29, 8-12	3.5	14
15	Mechanical hysteresis of hexagonal boron nitride. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2011 , 26, 935-938	1	2
14	Hysteresis in kinking nonlinear elastic solids and the Preisach-Mayergoyz model. <i>Physical Review B</i> , 2010 , 82,	3.3	16
13	Kinking Nonlinear Elasticity and the Deformation of Magnesium. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2009 , 40, 1741-1756	2.3	32
12	Synthesis and elastic and mechanical properties of Cr ₂ GeC. <i>Journal of Materials Research</i> , 2008 , 23, 2157-2165	2.5	50

11	Reversible dislocation motion under contact loading in LiNbO ₃ single crystal. <i>Journal of Materials Research</i> , 2008 , 23, 1334-1338	2.5	32
10	Kinking nonlinear elasticity, damping and microyielding of hexagonal close-packed metals. <i>Acta Materialia</i> , 2008 , 56, 60-67	8.4	66
9	Incipient and regular kink bands in fully dense and 10vol.% porous Ti ₂ AlC. <i>Acta Materialia</i> , 2006 , 54, 1638-1639	8.4	94
8	Mechanical damping in porous Ti ₃ SiC ₂ . <i>Acta Materialia</i> , 2006 , 54, 5261-5270	8.4	58
7	Microscale modeling of kinking nonlinear elastic solids. <i>Physical Review B</i> , 2005 , 71,	3.3	87
6	Microstructure and mechanical properties of porous TiSiC. <i>Acta Materialia</i> , 2005 , 53, 4359-4366	8.4	88
5	Quantitative phase analysis in the TiAlC ternary system by X-ray diffraction. <i>Powder Diffraction</i> , 2005 , 20, 218-223	1.8	46
4	Synthesis and mechanical properties of Ti ₃ AlC ₂ by spark plasma sintering. <i>Journal of Materials Science</i> , 2003 , 38, 3111-3115	4.3	75
3	A possible mechanism on synthesis of Ti ₃ AlC ₂ . <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003 , 352, 333-339	5.3	96
2	Preparation of Ti ₃ AlC ₂ and Ti ₂ AlC by self-propagating high-temperature synthesis. <i>Journal of Materials Science Letters</i> , 2001 , 20, 1971-1973		65
1	Mo ₂ C-MXene/CdS Heterostructures as Visible-Light Photocatalysts with an Ultrahigh Hydrogen Production Rate. <i>ACS Applied Energy Materials</i> ,	6.1	10