## Transition metal carbides go 2D

Nature Materials 14, 1079-1080

DOI: 10.1038/nmat4386

Citation Report

#	Article	IF	CITATIONS
1	Hydrogen Evolution Reaction of $\hat{I}^3$ -Mo0.5W0.5 C Achieved by High Pressure High Temperature Synthesis. Catalysts, 2016, 6, 208.	1.6	3
2	Synthesis of Twoâ€Dimensional Materials for Capacitive Energy Storage. Advanced Materials, 2016, 28, 6104-6135.	11.1	548
3	Controlled Growth of a Hierarchical Nickel Carbide "Dandelion―Nanostructure. Angewandte Chemie, 2016, 128, 8155-8158.	1.6	8
4	Controlled Growth of a Hierarchical Nickel Carbide "Dandelion―Nanostructure. Angewandte Chemie - International Edition, 2016, 55, 8023-8026.	7.2	11
5	lonic sieving through Ti3C2(OH)2 MXene: First-principles calculations. Applied Physics Letters, 2016, 108, .	1.5	65
6	Optical properties of functionalized Ti3C2T2 (T = F, O, OH) MXene: First-principles calculations. AIP Advances, 2016, 6, .	0.6	210
7	Phase behaviour and structure of a superionic liquid in nonpolarized nanoconfinement. Journal of Physics Condensed Matter, 2016, 28, 464007.	0.7	18
8	A new 2D monolayer BiXene, M <sub>2</sub> C (M = Mo, Tc, Os). Nanoscale, 2016, 8, 15753-15762.	2.8	46
9	Electrochemical and in-situ X-ray diffraction studies of Ti $3$ C $2$ T $x$ MXene in ionic liquid electrolyte. Electrochemistry Communications, 2016, 72, 50-53.	2.3	134
10	Exotic quantum spin Hall effect and anisotropic spin splitting in carbon based TMC 6 (TMÂ=ÂMo, W) kagome monolayers. Carbon, 2016, 109, 788-794.	5.4	10
11	Structural, electronic transport and optical properties of functionalized quasi-2D TiC2 from first-principles calculations. Applied Surface Science, 2016, 390, 1009-1014.	3.1	10
12	Transition Metal Carbides and Nitrides in Energy Storage and Conversion. Advanced Science, 2016, 3, 1500286.	5.6	1,001
13	One-step Solution Processing of Ag, Au and Pd@MXene Hybrids for SERS. Scientific Reports, 2016, 6, 32049.	1.6	316
14	Ab Initio Prediction and Characterization of Mo <sub>2</sub> C Monolayer as Anodes for Lithium-Ion and Sodium-Ion Batteries. Journal of Physical Chemistry Letters, 2016, 7, 937-943.	2.1	334
15	2D metal carbides and nitrides (MXenes) for energy storage. Nature Reviews Materials, 2017, 2, .	23.3	5,261
16	Recent advances of supercapacitors based on two-dimensional materials. Applied Materials Today, 2017, 7, 1-12.	2.3	20
17	Binder-free Ti 3 C 2 T x MXene electrode film for supercapacitor produced by electrophoretic deposition method. Chemical Engineering Journal, 2017, 317, 1026-1036.	6.6	202
18	Twoâ€Dimensional Metal Oxide Nanomaterials for Nextâ€Generation Rechargeable Batteries. Advanced Materials, 2017, 29, 1700176.	11.1	317

#	ARTICLE	IF	CITATIONS
19	Triâ€ <i>&gt;</i> à6€triazineâ€Based Crystalline Carbon Nitride Nanosheets for an Improved Hydrogen Evolution. Advanced Materials, 2017, 29, 1700008.	11.1	541
20	Effect of surface termination on ion intercalation selectivity of bilayer Ti $3 C 2 T 2 (T = F, O \text{ and OH})$ MXene. Applied Surface Science, 2017, 416, 725-730.	3.1	81
21	Prediction of T―and Hâ€Phase Twoâ€Dimensional Transitionâ€Metal Carbides/Nitrides and Their Semiconducting–Metallic Phase Transition. ChemPhysChem, 2017, 18, 1897-1902.	1.0	30
22	Recent advances of supercapacitors based on two-dimensional materials. Applied Materials Today, 2017, 8, 104-115.	2.3	139
23	Hierarchical porous carbons with layer-by-layer motif architectures from confined soft-template self-assembly in layered materials. Nature Communications, 2017, 8, 15717.	5.8	263
24	High-Throughput Survey of Ordering Configurations in MXene Alloys Across Compositions and Temperatures. ACS Nano, 2017, 11, 4407-4418.	7.3	146
25	Recent Advances in Ultrathin Two-Dimensional Nanomaterials. Chemical Reviews, 2017, 117, 6225-6331.	23.0	3,940
26	Strategies for designing metal oxide nanostructures. Science China Materials, 2017, 60, 1-24.	3.5	148
27	Recent advances in ternary two-dimensional materials: synthesis, properties and applications. Journal of Materials Chemistry A, 2017, 5, 22855-22876.	5.2	137
28	Understanding of Electrochemical Mechanisms for CO <sub>2</sub> Capture and Conversion into Hydrocarbon Fuels in Transition-Metal Carbides (MXenes). ACS Nano, 2017, 11, 10825-10833.	7.3	359
29	MXene–Silicon Van Der Waals Heterostructures for Highâ€Speed Selfâ€Driven Photodetectors. Advanced Electronic Materials, 2017, 3, 1700165.	2.6	162
30	Theoretical exploration of the potential applications of Sc-based MXenes. Physical Chemistry Chemical Physics, 2017, 19, 32253-32261.	1.3	34
31	BN Nanosheet/Polymer Films with Highly Anisotropic Thermal Conductivity for Thermal Management Applications. ACS Applied Materials & Samp; Interfaces, 2017, 9, 43163-43170.	4.0	190
32	Novel elastic, lattice dynamics and thermodynamic properties of metallic single-layer transition metal phosphides: 2H- <i>M</i> 2P (Mo <sub>2</sub> P, W <sub>2</sub> P, Nb <sub>2</sub> P and) Tj ETÇ	9q10 <b>1</b> 70.78	43 <b>å</b> 4 rgBT /C
33	Fabrication of tunable hierarchical MXene@AuNPs nanocomposites constructed by self-reduction reactions with enhanced catalytic performances. Science China Materials, 2018, 61, 728-736.	3.5	203
34	Clayâ€Inspired MXeneâ€Based Electrochemical Devices and Photoâ€Electrocatalyst: Stateâ€ofâ€theâ€Art Progresses and Challenges. Advanced Materials, 2018, 30, e1704561.	11.1	431
35	Energy storage properties of selectively functionalized Cr-group MXenes. Computational Materials Science, 2018, 150, 236-243.	1.4	18
36	Strategies for improving the lithium-storage performance of 2D nanomaterials. National Science Review, 2018, 5, 389-416.	4.6	108

#	Article	IF	Citations
37	Broadband Nonlinear Photonics in Few‣ayer MXene Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (T =) Tj E	ГQq0 <sub>4</sub> 0 0 r	gBT/Overlock
38	Recent Applications of 2D Inorganic Nanosheets for Emerging Energy Storage System. Chemistry - A European Journal, 2018, 24, 4757-4773.	1.7	52
39	Atomic layer deposition of nickel carbide for supercapacitors and electrocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2018, 6, 4297-4304.	5.2	90
40	Electronic and Optical Properties of 2D Transition Metal Carbides and Nitrides (MXenes). Advanced Materials, 2018, 30, e1804779.	11.1	850
41	Recent Progress of <scp>MX</scp> eneâ€Based Nanomaterials in Flexible Energy Storage and Electronic Devices. Energy and Environmental Materials, 2018, 1, 183-195.	7.3	135
42	Selfâ€Assembly of Largeâ€Area 2D Polycrystalline Transition Metal Carbides for Hydrogen Electrocatalysis. Advanced Materials, 2018, 30, e1805188.	11.1	84
43	Enhancing the Photocatalytic Performance of MXenes via Stoichiometry Engineering of Their Electronic and Optical Properties. ACS Applied Materials & Samp; Interfaces, 2018, 10, 39879-39889.	4.0	37
44	Enhancing the lithium storage capabilities of TiO2 nanoparticles using delaminated MXene supports. Ceramics International, 2018, 44, 17660-17666.	2.3	20
45	Structural, electronic and mechanical properties of two-dimensional Janus transition metal carbides and nitrides. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 103, 307-313.	1.3	32
46	A chemically bonded CoNiO2 nanoparticles/MXene composite as anode for sodium-ion batteries. Materials Letters, 2018, 230, 173-176.	1.3	65
47	In Situ Synthesis of Ag@Cu2O-rGO Architecture for Strong Light-Matter Interactions. Nanomaterials, 2018, 8, 444.	1.9	10
48	Structured Growth of Metal–Organic Framework MIL-53(Al) from Solid Aluminum Carbide Precursor. Journal of the American Chemical Society, 2018, 140, 9148-9153.	6.6	39
49	Germanane synthesis with simultaneous covalent functionalization: towards highly functionalized fluorescent germananes. Nanoscale, 2019, 11, 19327-19333.	2.8	17
50	Laser-sculptured ultrathin transition metal carbide layers for energy storage and energy harvesting applications. Nature Communications, 2019, 10, 3112.	5.8	91
51	Ti <sub>3</sub> C <sub>2</sub> T <i>&gt;<sub>x</sub></i> (MXene)â€Silicon Heterojunction for Efficient Photovoltaic Cells. Advanced Energy Materials, 2019, 9, 1901063.	10.2	68
52	Exfoliation of Ti2C and Ti3C2 Mxenes from bulk trigonal phases of titanium carbide: A theoretical prediction. Solid State Communications, 2019, 299, 113657.	0.9	30
53	Multifunctional two-dimensional nanocomposites for photothermal-based combined cancer therapy. Nanoscale, 2019, 11, 15685-15708.	2.8	74
54	Reviewing MXenes for Plasmonic Applications: Beyond Graphene., 2019,,.		2

#	Article	IF	Citations
55	Ultrafast Growth of Thin Hexagonal and Pyramidal Molybdenum Nitride Crystals and Films. , 2019, 1, 383-388.		17
56	Effect of vacancies on the structural and electronic properties of Ti <sub>2</sub> CO <sub>2</sub> . RSC Advances, 2019, 9, 27646-27651.	1.7	17
57	Inkjet-printed MXene micro-scale devices for integrated broadband ultrafast photonics. Npj 2D Materials and Applications, 2019, 3, .	3.9	87
58	Scalable One-Pot Synthesis of Nitrogen and Boron Co-doped Few Layered Graphene by Submerged Liquid Plasma Exfoliation. Frontiers in Materials, 2019, 6, .	1.2	10
59	Introduction to MXenes: synthesis and characteristics. Materials Today Chemistry, 2019, 14, 100191.	1.7	89
60	Synthesis and Processing of Emerging Two-Dimensional Nanomaterials. , 2019, , 1-25.		18
61	Water treatment and environmental remediation applications of two-dimensional metal carbides (MXenes). Materials Today, 2019, 30, 80-102.	8.3	390
62	Computational Discovery of Transparent Conducting In-Plane Ordered MXene ( <i>i</i> ii>-MXene) Alloys. Chemistry of Materials, 2019, 31, 4124-4132.	3.2	19
63	Computational Discovery and Design of MXenes for Energy Applications: Status, Successes, and Opportunities. ACS Applied Materials & Samp; Interfaces, 2019, 11, 24885-24905.	4.0	105
64	Two-Dimensional Nanomaterials: Crystal Structure and Synthesis. , 2019, , 1-25.		11
65	<i>In situ</i> synthesis of BiOCl nanosheets on three-dimensional hierarchical structures for efficient photocatalysis under visible light. Nanoscale, 2019, 11, 10203-10208.	2.8	32
66	Stability of Zirconium Carbide under High Pressure and High Temperature. Journal of Physical Chemistry C, 2019, 123, 10051-10056.	1.5	13
67	Overview of the synthesis of MXenes and other ultrathin 2D transition metal carbides and nitrides. Current Opinion in Solid State and Materials Science, 2019, 23, 149-163.	5.6	353
68	MXeneâ€Based Composites: Synthesis and Applications in Rechargeable Batteries and Supercapacitors. Advanced Materials Interfaces, 2019, 6, 1802004.	1.9	214
69	Asymmetric MXene/monolayer transition metal dichalcogenide heterostructures for functional applications. Npj Computational Materials, 2019, 5, .	3.5	23
70	Atomic Layer Deposition of Cobalt Carbide Thin Films from Cobalt Amidinate and Hydrogen Plasma. ACS Applied Electronic Materials, 2019, 1, 444-453.	2.0	16
71	Two dimensional α-MoO3 nanosheets decorated carbon cloth electrodes for high-performance supercapacitors. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 569, 137-144.	2.3	49
72	Lithiophilic Three-Dimensional Porous Ti <sub>3</sub> C <sub>2</sub> T <i><sub>x</sub></i> -rGO Membrane as a Stable Scaffold for Safe Alkali Metal (Li or Na) Anodes. ACS Nano, 2019, 13, 14319-14328.	7.3	123

#	ARTICLE	IF	Citations
73	Thickness biased capture of CO <sub>2</sub> on carbide MXenes. Physical Chemistry Chemical Physics, 2019, 21, 23136-23142.	1.3	55
74	Ti <sub>3</sub> C <sub>2</sub> -MXene/Bismuth Ferrite Nanohybrids for Efficient Degradation of Organic Dyes and Colorless Pollutants. ACS Omega, 2019, 4, 20530-20539.	1.6	119
75	Modulation engineering of 2D MXene-based compounds for metal-ion batteries. Nanoscale, 2019, 11, 23092-23104.	2.8	36
76	Mo <sub>2</sub> C/graphene heterostructures: low temperature chemical vapor deposition on liquid bimetallic Sn–Cu and hydrogen evolution reaction electrocatalytic properties. Nanotechnology, 2019, 30, 125401.	1.3	44
77	MXeneâ€Enabled Electrochemical Microfluidic Biosensor: Applications toward Multicomponent Continuous Monitoring in Whole Blood. Advanced Functional Materials, 2019, 29, 1807326.	7.8	301
78	Multifunctional Two-Dimensional Core–Shell MXene@Gold Nanocomposites for Enhanced Photo–Radio Combined Therapy in the Second Biological Window. ACS Nano, 2019, 13, 284-294.	<b>7.</b> 3	232
79	Intrinsic Reactivity of Diatomic 3d Transition-Metal Carbides in the Thermal Activation of Methane: Striking Electronic Structure Effects. Journal of the American Chemical Society, 2019, 141, 599-610.	6.6	39
80	Structural Design and Electronic Modulation of Transitionâ€Metalâ€Carbide Electrocatalysts toward Efficient Hydrogen Evolution. Advanced Materials, 2019, 31, e1802880.	11.1	422
81	Tent-pitching-inspired high-valence period 3-cation pre-intercalation excels for anode of 2D titanium carbide (MXene) with high Li storage capacity. Energy Storage Materials, 2019, 16, 163-168.	9.5	110
82	Ti3C2Tx MXene/graphene nanocomposites: Synthesis and application in electrochemical energy storage. Journal of Alloys and Compounds, 2020, 815, 152403.	2.8	108
83	2 D MXeneâ€based Energy Storage Materials: Interfacial Structure Design and Functionalization. ChemSusChem, 2020, 13, 1409-1419.	3.6	63
84	Application of atomic layer deposition in fabricating high-efficiency electrocatalysts. Chinese Journal of Catalysis, 2020, 41, 227-241.	6.9	21
85	Recent progress of MXenes as the support of catalysts for the CO oxidation and oxygen reduction reaction. Chinese Chemical Letters, 2020, 31, 931-936.	4.8	32
86	Twoâ€Dimensional Transition Metal Carbides and Nitrides (MXenes): Synthesis, Properties, and Electrochemical Energy Storage Applications. Energy and Environmental Materials, 2020, 3, 29-55.	<b>7.</b> 3	319
87	Self-standing Substrates. Engineering Materials, 2020, , .	0.3	2
88	Tuning residual metal in partially etched carbide-derived carbons for enhanced acid gas adsorption. Carbon, 2020, 158, 481-493.	5.4	6
89	Recent advances in 2D MXenes for enhanced cation intercalation in energy harvesting Applications: A review. Chemical Engineering Journal, 2020, 392, 123678.	6.6	127
90	Recent Advancements and Future Prospects in Ultrathin 2D Semiconductor-Based Photocatalysts for Water Splitting. Catalysts, 2020, 10, 1111.	1.6	35

#	Article	IF	CITATIONS
91	High performance photocatalytic and thermoelectric two-dimensional asymmetrically ordered Janus-like MXene alloys. Materials Advances, 2020, 1, 1176-1185.	2.6	14
92	Structures and optoelectronic properties of two-dimensional MC6 (M = Ti and Hf) predicted by computational approaches. Materials Today Communications, 2020, 25, 101606.	0.9	0
93	Multi-dimensional materials with layered structures for supercapacitors: Advanced synthesis, supercapacitor performance and functional mechanism. Nano Energy, 2020, 78, 105193.	8.2	58
94	Emerging 2D MXenes for supercapacitors: status, challenges and prospects. Chemical Society Reviews, 2020, 49, 6666-6693.	18.7	466
95	Mechanotribological Aspects of MXeneâ€Reinforced Nanocomposites. Advanced Materials, 2020, 32, e2003154.	11.1	160
96	Revisiting the Intriguing Electronic Features of the BeOBeC Carbyne and Some Isomers: A Quantumâ€Chemical Assessment. Angewandte Chemie - International Edition, 2020, 59, 17261-17265.	7.2	2
97	Rising from the horizon: three-dimensional functional architectures assembled with MXene nanosheets. Journal of Materials Chemistry A, 2020, 8, 18538-18559.	5.2	86
98	Gas adsorption properties (N <sub>2</sub> , H <sub>2</sub> , O <sub>2</sub> , NO, NO <sub>2</sub> , CO,) Tj ET first-principles study. New Journal of Chemistry, 2020, 44, 18763-18769.	Qq1 1 0.7 1.4	84314 rgB 30
99	Design and Synthesis of Nanostructured Materials for Sensor Applications. Journal of Nanomaterials, 2020, 2020, 1-20.	1.5	37
100	Solution-gated transistors of two-dimensional materials for chemical and biological sensors: status and challenges. Nanoscale, 2020, 12, 11364-11394.	2.8	41
101	Interfacial structure design of <scp>MXeneâ€based</scp> nanomaterials for electrochemical energy storage and conversion. InformaÄnÃ-MateriÃįly, 2020, 2, 1057-1076.	8.5	143
102	Two dimensional ruthenium carbide: structural and electronic features. Physical Chemistry Chemical Physics, 2020, 22, 15488-15495.	1.3	2
103	An electrochemical sensor for ifosfamide, acetaminophen, domperidone, and sumatriptan based on self-assembled MXene/MWCNT/chitosan nanocomposite thin film. Mikrochimica Acta, 2020, 187, 402.	2.5	84
104	Effect of silicon on sensitivity of SPR biosensor using hybrid nanostructure of black phosphorus and MXene. Superlattices and Microstructures, 2020, 145, 106591.	1.4	71
105	<i>N</i> â€Heterocyclic Carbene–Palladium Complex onto Graphene Oxide and Poly (ethylene glycol) (PEG) Applied as Superior Catalyst for the Suzukiâ€Miyaura Crossâ€Coupling Reaction in Water. Applied Organometallic Chemistry, 2020, 34, e5805.	1.7	15
106	CO <sub>2</sub> C surface and Ti <sub>2</sub> C surface and Ti <sub>2</sub> C MXene: the role of surface structure. Physical Chemistry Chemical Physics, 2020, 22, 14599-14612.	1.3	30
107	Revisiting the Intriguing Electronic Features of the BeOBeC Carbyne and Some Isomers: A Quantumâ€Chemical Assessment. Angewandte Chemie, 2020, 132, 17414-17418.	1.6	0
108	Titanium Monocarbide. , 2020, , 11-514.		0

#	Article	IF	CITATIONS
109	Recent advances in MXenes and their composites in lithium/sodium batteries from the viewpoints of components and interlayer engineering. Physical Chemistry Chemical Physics, 2020, 22, 16482-16526.	1.3	47
110	Overview of Rational Design of Binary Alloy for the Synthesis of Two-Dimensional Materials. Surfaces, 2020, 3, 26-39.	1.0	0
111	MXene/Polymer Membranes: Synthesis, Properties, and Emerging Applications. Chemistry of Materials, 2020, 32, 1703-1747.	3.2	429
112	Refractive Index Sensors Based on Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene Fibers. ACS Applied Nano Materials, 2020, 3, 303-311.	2.4	74
113	Twoâ€dimensional MXenes for lithiumâ€sulfur batteries. InformaÄnÃ-Materiály, 2020, 2, 613-638.	8.5	221
114	Two-dimensional MXenes: From morphological to optical, electric, and magnetic properties and applications. Physics Reports, 2020, 848, 1-58.	10.3	594
115	MXenes and Their Applications in Wearable Sensors. Frontiers in Chemistry, 2020, 8, 297.	1.8	147
116	Booming development and present advances of two dimensional MXenes for photodetectors. Chemical Engineering Journal, 2021, 403, 126336.	6.6	40
117	Two-dimensional MXenes for electrochemical capacitor applications: Progress, challenges and perspectives. Energy Storage Materials, 2021, 35, 630-660.	9.5	182
118	Nonlayered 2D ultrathin molybdenum nitride synthesized through the ammonolysis of 2D molybdenum dioxide. Chemical Communications, 2021, 57, 223-226.	2.2	22
119	Structural, electronic and optical properties of two-dimensional Janus transition metal oxides MXO (M=Ti, Hf and Zr; X=S and Se) for photovoltaic and opto-electronic applications. Physica B: Condensed Matter, 2021, 604, 412621.	1.3	24
120	Two-dimensional MXene-based flexible nanostructures for functional nanodevices: a review. Journal of Materials Chemistry A, 2021, 9, 3231-3269.	5.2	97
121	Synthesis and characterization of 2D materials. , 2021, , 77-104.		2
122	Recent progress on strategies for the preparation of 2D/2D MXene/g-C <sub>3</sub> N <sub>4</sub> nanocomposites for photocatalytic energy and environmental applications. Catalysis Science and Technology, 2021, 11, 1222-1248.	2.1	75
123	Application of MXene-based materials in hybrid capacitors. Sustainable Energy and Fuels, 2021, 5, 3278-3291.	2.5	29
124	Tuning the interfacial electronic structure <i>via</i> Au clusters for boosting photocatalytic H <sub>2</sub> evolution. Journal of Materials Chemistry A, 2021, 9, 1759-1769.	5.2	33
125	Heteroâ€MXenes: Theory, Synthesis, and Emerging Applications. Advanced Materials, 2021, 33, e2004129.	11.1	150
126	MXene-based photocatalysts. , 2021, , 333-357.		0

#	ARTICLE	IF	CITATIONS
127	MXenes: Synthesis, Optical Properties, and Applications in Ultrafast Photonics. Small, 2021, 17, e2006054.	5.2	119
128	Development of 2D MXene for Energy Storage. Journal of Physics: Conference Series, 2021, 1827, 012053.	0.3	2
129	lonâ€Selective MXeneâ€Based Membranes: Current Status and Prospects. Advanced Materials Technologies, 2021, 6, 2001189.	3.0	31
130	MXene materials based printed flexible devices for healthcare, biomedical and energy storage applications. Materials Today, 2021, 43, 99-131.	8.3	107
131	MXenes for memristive and tactile sensory systems. Applied Physics Reviews, 2021, 8, .	5.5	25
132	Picric Acid Violet Light Assisted Photodegradation Mediated by Germanene-Based Materials. Bulletin of the Chemical Society of Japan, 2021, 94, 1695-1701.	2.0	5
133	Mixedâ€Anion Compounds: An Unexplored Playground for ALD Fabrication. Advanced Materials Interfaces, 2021, 8, 2100146.	1.9	11
134	2D MXene Materials for Sodium Ion Batteries: A review on Energy Storage. Journal of Energy Storage, 2021, 37, 102478.	3.9	62
135	Recent Advancement for the Synthesis of MXene Derivatives and Their Sensing Protocol. Advanced Materials Technologies, 2021, 6, 2001197.	3.0	16
136	Recent advances in the rational design of <scp>2D MXenes</scp> in energy conversion and storage systems. International Journal of Energy Research, 2021, 45, 17563-17576.	2.2	4
137	MXeneâ€Based Membranes for Separation Applications. Small Science, 2021, 1, 2100013.	5.8	49
138	Application of Nanomaterials for Chemical and Biological Sensors: A Review. IEEE Sensors Journal, 2021, 21, 12407-12425.	2.4	17
139	NIRâ€I Responsive Inorganic 2D Nanomaterials for Cancer Photothermal Therapy: Recent Advances and Future Challenges. Advanced Functional Materials, 2021, 31, 2101625.	7.8	126
140	Remediation of emerging environmental pollutants: A review based on advances in the uses of eco-friendly biofabricated nanomaterials. Chemosphere, 2021, 275, 129975.	4.2	75
141	Insight into two-dimensional MXenes for environmental applications: Recent progress, challenges, and prospects. FlatChem, 2021, 28, 100256.	2.8	35
142	Study of nanostructured ultra-refractory Tantalum-Hafnium-Carbide electrodes with wide electrochemical stability window. Chemical Engineering Journal, 2021, 415, 128987.	6.6	4
143	MXenes: synthesis, incorporation, and applications in ultrafast lasers. Nanotechnology, 2021, 32, 392003.	1.3	12
144	Recent Advances in the Synthesis and Energy Applications of 2D MXenes. ChemElectroChem, 2021, 8, 3804-3826.	1.7	18

#	ARTICLE	IF	CITATIONS
145	A high-entropy phosphate catalyst for oxygen evolution reaction. Nano Energy, 2021, 86, 106029.	8.2	100
146	Recent advances in the rational design of <scp>2D MXenes</scp> in energy conversion and storage systems. International Journal of Energy Research, 2021, 45, 20448-20462.	2.2	5
147	Recent advances in transition metal carbides and nitrides (MXenes): Characteristics, environmental remediation and challenges. Chemical Engineering Journal, 2021, 418, 129296.	6.6	70
148	Environmental applications ofÂtwo-dimensional transition metal carbides and nitrides for water purification: a review. Environmental Chemistry Letters, 2022, 20, 633-660.	8.3	19
149	Research progress of MXene-based catalysts for electrochemical water-splitting and metal-air batteries. Energy Storage Materials, 2021, 43, 509-530.	9.5	60
150	Superior sensing performance of two-dimensional ruthenium carbide (2D-RuC) in detection of NO, NO2 and NH3 gas molecules. Applied Surface Science, 2021, 563, 150232.	3.1	22
151	Towards high-performance electrocatalysts and photocatalysts: Design and construction of MXenes-based nanocomposites for water splitting. Chemical Engineering Journal, 2021, 421, 129944.	6.6	50
152	MXene-based designer nanomaterials and their exploitation to mitigate hazardous pollutants from environmental matrices. Chemosphere, 2021, 283, 131293.	4.2	28
153	WC/BiOCl binary composite photocatalyst for accelerating interfacial charge separation and sulfamethoxazole degradation. Applied Surface Science, 2021, 570, 151201.	3.1	21
154	Application of MXenes for water treatment and energy-efficient desalination: A review. Journal of Hazardous Materials, 2022, 423, 127050.	6.5	111
155	MXene derivatives: synthesis and applications in energy convention and storage. RSC Advances, 2021, 11, 16065-16082.	1.7	25
156	Application of Self-supported Materials for Photo and Photoelectrocatalysis. Engineering Materials, 2020, , 57-82.	0.3	2
157	Harnessing the unique properties of MXenes for advanced rechargeable batteries. JPhys Energy, 2021, 3, 012005.	2.3	14
158	Two-dimensional metal carbides and nitrides (MXenes): preparation, property, and applications in cancer therapy. Nanophotonics, 2020, 9, 2125-2145.	2.9	61
159	Application of Bimetallic and Trimetallic Nanoparticles Supported on Graphene as novel Heterogeneous Catalysts in the Reduction of Nitroarenes, Homo-coupling, Suzuki-Miyaura and Sonogashira Reactions. Current Organic Chemistry, 2020, 24, 2216-2234.	0.9	19
160	Degradable and Dissolvable Thin-Film Materials for the Applications of New-Generation Environmental-Friendly Electronic Devices. Applied Sciences (Switzerland), 2020, 10, 1320.	1.3	15
161	New High-energy Anode Materials. , 2019, , 1-25.		1
162	Two-Dimensional Transition Metal Carbides and Nitrides (MXenes): Synthesis to Applications. Engineering Materials, 2021, , 179-199.	0.3	0

#	Article	IF	Citations
163	Design and Characterization of Ag@Cu2O-rGO Nanocomposite for the p-Nitrophenol Reduction. Catalysts, 2021, 11, 43.	1.6	3
164	A review of MXenes as emergent materials for dye removal from wastewater. Separation and Purification Technology, 2022, 282, 120083.	3.9	56
165	Novel nanomaterials for environmental remediation of toxic metal ions and radionuclides. , 2022, , $1-47$ .		2
166	Two-dimensional transition metal carbide/nitride (MXene)-based nanomaterials for removal of toxic/radioactive metal ions from wastewater., 2022,, 161-194.		0
167	A DFT computational prediction of 2H phase W2C monolayer and the effect of O functional groups. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 424, 127842.	0.9	4
168	MXene-Based Materials for Solar Cell Applications. Nanomaterials, 2021, 11, 3170.	1.9	19
169	Recent Advances in Oxidation Stable Chemistry of 2D MXenes. Advanced Materials, 2022, 34, e2107554.	11.1	163
170	MXenes nanocomposites for energy storage and conversion. Rare Metals, 2022, 41, 1101-1128.	3.6	47
171	MXene-based electrochemical sensors for detection of environmental pollutants: A comprehensive review. Chemosphere, 2022, 291, 132921.	4.2	60
172	Localized surface plasmon resonances and electric field confinement in titanium carbide (Ti <sub>3</sub> C <sub>2</sub> ) MXene nanoclusters. Physical Chemistry Chemical Physics, 2021, 23, 25807-25816.	1.3	13
173	Contribution of nano-design approaches to future electrochemical energy storage systems. Frontiers of Nanoscience, 2021, 19, 273-325.	0.3	2
174	MXenes as emerging nanomaterials in water purification and environmental remediation. Science of the Total Environment, 2022, 811, 152280.	3.9	255
175	Synthesis and nano-engineering of MXenes for energy conversion and storage applications: Recent advances and perspectives. Coordination Chemistry Reviews, 2022, 454, 214339.	9.5	71
176	Novel synthesis methods and applications of MXene-based nanomaterials (MBNs) for hazardous pollutants degradation: Future perspectives. Chemosphere, 2022, 293, 133542.	4.2	34
177	MXene-based nanomaterials for electrocatalysis. , 2022, , 23-46.		0
178	MXene-based multifunctional polymer composites for electromagnetic interference shielding applications., 2022,, 649-686.		2
179	Synthesis methods and surface chemistry/functionalization of MXene., 2022,, 49-89.		3
180	Structure defects and electronic properties of MXenes. , 2022, , 91-129.		3

#	Article	IF	CITATIONS
181	MXenes and their composites for energy harvesting applications. , 2022, , 687-723.		1
182	MXene Heterostructures as Perspective Materials for Gas Sensing Applications. Sensors, 2022, 22, 972.	2.1	26
183	New insights on MXene and its advanced hybrid materials for lithium-ion batteries. Sustainable Energy and Fuels, 2022, 6, 971-1013.	2.5	18
184	Insights into 2D/2D MXene Heterostructures for Improved Synergy in Structure toward Nextâ€Generation Supercapacitors: A Review. Advanced Functional Materials, 2022, 32, .	7.8	152
185	MXenes with applications in supercapacitors and secondary batteries: A comprehensive review. Materials Reports Energy, 2022, 2, 100080.	1.7	19
186	Recent progress in polymer/two-dimensional nanosheets composites with novel performances. Progress in Polymer Science, 2022, 126, 101505.	11.8	105
187	High-performance and robust polysulfone nanocomposite membrane containing 2D functionalized MXene nanosheets for the nanofiltration of salt and dye solutions. Desalination, 2022, 527, 115600.	4.0	30
188	Ti <sub>3</sub> C <sub>2</sub> T <sub><i>x</i></sub> MXene-Based Flexible Piezoresistive Physical Sensors. ACS Nano, 2022, 16, 1734-1758.	7.3	177
190	A strategic review of MXenes as emergent building blocks for future two-dimensional materials: recent progress and perspectives. Journal of Materials Chemistry C, 2022, 10, 4096-4123.	2.7	18
191	Dimensional optimization enables high-performance capacitive deionization. Journal of Materials Chemistry A, 2022, 10, 6414-6441.	5.2	43
192	MXenes for metal-ion and metal-sulfur batteries: Synthesis, properties, and electrochemistry. Materials Reports Energy, 2022, 2, 100077.	1.7	1
193	Review—Towards 5th Generation Al and IoT Driven Sustainable Intelligent Sensors Based on 2D MXenes and Borophene. , 2022, 1, 013601.		238
194	An inclusive perspective on the recent development of tungstenâ€based catalysts for overall <scp>waterâ€splitting</scp> : A review. International Journal of Energy Research, 2022, 46, 10228-10258.	2.2	6
195	Recent progress and new perspective of MXene-based membranes for water purification: A review. Ceramics International, 2022, 48, 16477-16491.	2.3	23
196	Prospects of MXenes in energy storage applications. Chemosphere, 2022, 297, 134225.	4.2	50
197	Recent progress in the allâ€solidâ€state flexible supercapacitors. SmartMat, 2022, 3, 349-383.	6.4	21
198	Recent advances in solidâ€state supercapacitors: From emerging materials to advanced applications. International Journal of Energy Research, 2022, 46, 10389-10452.	2.2	16
199	MXenes: state-of-the-art synthesis, composites and bioapplications. Journal of Materials Chemistry B, 2022, 10, 4331-4345.	2.9	8

#	Article	IF	CITATIONS
200	Advances in flexible sensors with MXene materials. New Carbon Materials, 2022, 37, 303-320.	2.9	20
201	A Glimpse on the plethora of applications of prodigious material MXene. Sustainable Materials and Technologies, 2022, 32, e00439.	1.7	9
202	Synthesis strategies and structural and electronic properties of MXenes-based nanomaterials for ORR: A mini review. Inorganic Chemistry Communication, 2022, 141, 109496.	1.8	9
203	2D single- and few-layered MXenes: synthesis, applications and perspectives. Journal of Materials Chemistry A, 2022, 10, 13651-13672.	5.2	56
204	MXene-based aptasensors: Advances, challenges, and prospects. Progress in Materials Science, 2022, 129, 100967.	16.0	46
205	The Emergence of 2D MXenes Based Znâ€lon Batteries: Recent Development and Prospects. Small, 2022, 18,	5.2	76
206	Recent status and challenges in multifunctional electrocatalysis based on 2D MXenes. Catalysis Science and Technology, 2022, 12, 4413-4441.	2.1	16
207	Stability and Degradation of MXene. Engineering Materials, 2022, , 87-107.	0.3	4
208	Constructing conductive titanium carbide nanosheet (MXene) network on natural rubber foam framework for flexible strain sensor. Journal of Materials Science: Materials in Electronics, 2022, 33, 15563-15573.	1.1	8
209	Emergence of MXene–Polymer Hybrid Nanocomposites as Highâ€Performance Nextâ€Generation Chemiresistors for Efficient Air Quality Monitoring. Advanced Functional Materials, 2022, 32, .	7.8	77
210	Nanomaterials in biomedicine: Synthesis and applications. , 2022, , 585-604.		0
211	Printing of MXene-based materials and the applications: a state-of-the-art review. 2D Materials, 2022, 9, 042002.	2.0	3
212	Recent advances in MXenes and their composites for wearable sensors. Journal of Physics Condensed Matter, 2022, 34, 453001.	0.7	4
213	Tunable Structured MXenes With Modulated Atomic Environments: A Powerful New Platform for Electrocatalytic Energy Conversion. Small, 2022, 18, .	5.2	14
214	MXenes and Other Two-Dimensional Materials for Membrane Gas Separation: Progress, Challenges, and Potential of MXene-Based Membranes. Industrial & Engineering Chemistry Research, 2023, 62, 2309-2328.	1.8	15
215	MXenes: promising 2D materials for wound dressing applications – a perspective review. Materials Advances, 2022, 3, 7445-7462.	2.6	4
216	Tungsten Carbides. , 2022, , 11-829.		0
217	Improving the catalytic activity of two-dimensional Mo2C for hydrogen evolution reaction by doping and vacancy defects. International Journal of Hydrogen Energy, 2022, 47, 38517-38523.	3.8	4

#	Article	IF	CITATIONS
218	Recent Advances in 2Dâ€MXene Based Nanocomposites for Optoelectronics. Advanced Materials Interfaces, 2022, 9, .	1.9	20
219	Recent Advancement in Rational Design Modulation of MXene: A Voyage from Environmental Remediation to Energy Conversion and Storage. Chemical Record, 2022, 22, .	2.9	16
220	Recent advance in MXenes: New horizons in electrocatalysis and environmental remediation technologies. Progress in Solid State Chemistry, 2022, 68, 100370.	3.9	9
221	A Review on MXene Synthesis, Stability, and Photocatalytic Applications. ACS Nano, 2022, 16, 13370-13429.	7.3	142
222	Recent progress in the design of advanced MXene/metal oxides-hybrid materials for energy storage devices. Energy Storage Materials, 2022, 53, 827-872.	9.5	67
223	Anaerobe Syntrophic Co-culture-Mediated Green Synthesis of Ultrathin Niobium Carbide (NbC) Sheets for Flexoelectricity Generation. ACS Sustainable Chemistry and Engineering, 2022, 10, 13650-13660.	3.2	4
224	Two dimensional (2D) MXenes as an emerging class of materials for antimicrobial applications: properties and mechanisms. Journal of Environmental Chemical Engineering, 2022, 10, 108663.	3.3	6
225	Headway towards contemporary 2D MXene-based hybrid electrodes for alkali-ion batteries. Energy Advances, 2022, 1, 950-979.	1.4	3
226	Emergence of MXene and MXene–Polymer Hybrid Membranes as Future―Environmental Remediation Strategies. Advanced Science, 2022, 9, .	5.6	70
227	Bioactive inorganic compound MXene and its application in tissue engineering and regenerative medicine. Journal of Industrial and Engineering Chemistry, 2023, 117, 38-53.	2.9	8
228	MXenes: Advances in the synthesis and application in supercapacitors and batteries. Journal of Materials Research, 2022, 37, 3865-3889.	1.2	4
229	Rapid growth of MXene-based membranes for sustainable environmental pollution remediation. Chemosphere, 2023, 311, 137056.	4.2	37
230	Towards hospital-on-chip supported by 2D MXenes-based 5th generation intelligent biosensors. Biosensors and Bioelectronics, 2023, 220, 114847.	5.3	79
231	Emerging MXeneâ€Based Memristors for Inâ€Memory, Neuromorphic Computing, and Logic Operation. Advanced Functional Materials, 2023, 33, .	7.8	32
232	Emerging applications of MXenes for photodetection: Recent advances and future challenges. Materials Today, 2022, 61, 169-190.	8.3	8
233	Current progresses in two-dimensional MXene-based framework: prospects from superficial synthesis to energy conversion and storage applications. Materials Today Chemistry, 2023, 27, 101238.	1.7	8
234	Synthesis of high-quality ultrathin titanium carbide nanosheets and films through immiscibility approach. Materials Letters, 2023, 334, 133716.	1.3	2
235	Progress in engineering interlayer space modulated MXenes to architect next-generation airborne pollutant sensors. Sensors and Actuators B: Chemical, 2023, 379, 133225.	4.0	32

#	Article	IF	CITATIONS
236	Recent Escalations in MXenes: From Fundamental to Applications. , 2023, , 205-239.		0
237	MXenes Antibacterial Properties and Applications: A Review and Perspective. Small, 2023, 19, .	5.2	49
238	Recent trends in MXene-based material for biomedical applications. Environmental Research, 2023, 222, 115337.	3.7	30
239	Recent Progress in Emerging Novel MXenes Based Materials and their Fascinating Sensing Applications. Small, 2023, 19, .	5.2	19
240	Application of Two-Dimensional MXene materials in sensors. Materials and Design, 2023, 228, 111867.	3.3	14
241	A review on MXene and its' composites for electromagnetic interference (EMI) shielding applications. Carbon, 2023, 208, 170-190.	5.4	51
242	Advances in MXenes synthesis and MXenes derived electrocatalysts for oxygen electrode in metal-air batteries: A review. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2023, 292, 116400.	1.7	5
243	Insights into the impact of interlayer spacing on MXene-based electrodes for supercapacitors: A review. Journal of Energy Storage, 2023, 65, 107341.	3.9	11
244	Recent advances of flexible MXene physical sensor to wearable electronics. Materials Today Communications, 2023, 35, 106014.	0.9	3
245	MXene: fundamentals to applications in electrochemical energy storage. , 2023, 18, .		15
246	Highly efficient, remarkable sensor activity and energy storage properties of MXenes and borophene nanomaterials. Progress in Solid State Chemistry, 2023, 70, 100392.	3.9	5
247	Application of Titanium Carbide MXenes in Chemiresistive Gas Sensors. Nanomaterials, 2023, 13, 850.	1.9	14
248	Recent Advances in Two-Dimensional MXene for Supercapacitor Applications: Progress, Challenges, and Perspectives. Nanomaterials, 2023, 13, 919.	1.9	10
249	MXene-Based Nanomaterials and Their Applications in Supercapacitors. , 2023, , 1-25.		0
250	MXene-based nanocomposite for the photocatalytic CO2 reduction: Comprehensive review. Molecular Catalysis, 2023, 541, 113085.	1.0	1
251	Synthesis and applications of MXene-based composites: a review. Nanotechnology, 2023, 34, 262001.	1.3	14
256	State of the art recent advances and perspectives in 2D MXene-based microwave absorbing materials: A review. Nano Research, 2023, 16, 10287-10325.	5.8	6
259	Research progress of MXenes and layered double hydroxides for supercapacitors. Inorganic Chemistry Frontiers, 2023, 10, 4358-4392.	3.0	52

#	Article	IF	CITATIONS
260	Potential of MXenes as a novel material for spintronic devices: a review. Physical Chemistry Chemical Physics, 2023, 25, 18584-18608.	1.3	9
262	Application of MXenes in Water Purification, CO2 Capture and Conversion. Springer Series in Materials Science, 2023, , 17-74.	0.4	0
264	Functionalized MXene-Based Polymer Composites. , 2023, , 47-60.		0
267	MXene based materials for electrochemical sensing. , 2023, , 225-252.		O
269	MXenesâ€Based Materials for Contaminant Removal from Wastewaters. ACS Symposium Series, 0, , 193-218.	0.5	1
272	Applications of the MXenes in Li-Ion Batteries. ACS Symposium Series, 0, , 51-79.	0.5	O
274	Two-dimensional van der Waals materials and their mixed low-dimensional hybrids for electrochemical energy applications. MRS Bulletin, 0, , .	1.7	1
280	Recent trends in synthesis of 2D MXene-based materials for sustainable environmental applications. Emergent Materials, 2024, 7, 35-62.	3.2	1
295	2D Metal Carbides and Nitrides (MXenes) in Water Treatment. Engineering Materials, 2024, , 141-168.	0.3	0
297	MXene-based hybrid biosensors. , 2024, , 327-349.		0