

# CITATION REPORT

List of articles citing

Two-dimensional nanocrystals produced by exfoliation of  $\text{Ti}_3\text{AlC}_2$

DOI: 10.1002/adma.201102306  
Advanced Materials, 2011, 23, 4248-53.

**Source:** <https://exaly.com/paper-pdf/51486581/citation-report.pdf>

**Version:** 2024-04-27

This report has been generated based on the citations recorded by exaly.com for the above article. 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.

#	Paper	IF	Citations
2278	Synthesis of a new nanocrystalline titanium aluminum fluoride phase by reaction of Ti <sub>2</sub> AlC with hydrofluoric acid. <b>2011</b> , 1, 1493		35
2277	On the Topotactic Transformation of Ti <sub>2</sub> AlC into a Ti <sub>3</sub> AlC <sub>2</sub> Cubic Phase by Heating in Molten Lithium Fluoride in Air. <b>2011</b> , 94, 4556-4561		59
2276	ChemInform Abstract: Two-Dimensional Nanocrystals Produced by Exfoliation of Ti <sub>3</sub> AlC <sub>2</sub> . <b>2011</b> , 42, no-no		6
2275	Interplay between many-body effects and charge transfers in Cr <sub>2</sub> AlC bulk plasmon excitation. <b>2012</b> , 86,		17
2274	Are MXenes promising anode materials for Li ion batteries? Computational studies on electronic properties and Li storage capability of Ti <sub>3</sub> C <sub>2</sub> and Ti <sub>3</sub> C <sub>2</sub> X <sub>2</sub> (X = F, OH) monolayer. <b>2012</b> , 134, 16909-16		1304
2273	A Non-Aqueous Asymmetric Cell with a Ti <sub>2</sub> C-Based Two-Dimensional Negative Electrode. <b>2012</b> , 159, A1368-A1373		270
2272	Planar nano-block structures Ti <sub>n+1</sub> Al <sub>0.5</sub> C <sub>n</sub> and Ti <sub>n+1</sub> C <sub>n</sub> (n=1, and 2) from MAX phases: Structural, electronic properties and relative stability from first principles calculations. <b>2012</b> , 52, 147-157		48
2271	Atomic structure, comparative stability and electronic properties of hydroxylated Ti <sub>2</sub> C and Ti <sub>3</sub> C <sub>2</sub> nanotubes. <b>2012</b> , 989, 27-32		120
2270	Challenges in Ceramic Science: A Report from the Workshop on Emerging Research Areas in Ceramic Science. <b>2012</b> , 95, 3699-3712		51
2269	Two-dimensional tetragonal TiC monolayer sheet and nanoribbons. <b>2012</b> , 134, 19326-9		154
2268	Two-dimensional transition metal carbides. <b>2012</b> , 6, 1322-31		2382
2267	Graphene-like titanium carbides and nitrides Ti <sub>n+1</sub> C <sub>n</sub> , Ti <sub>n+1</sub> N <sub>n</sub> (n = 1, 2, and 3) from de-intercalated MAX phases: First-principles probing of their structural, electronic properties and relative stability. <b>2012</b> , 65, 104-114		201
2266	First principles study of two-dimensional early transition metal carbides. <b>2012</b> , 2, 133-137		316
2265	Discovery of the ternary nanolaminated compound Nb <sub>2</sub> GeC by a systematic theoretical-experimental approach. <b>2012</b> , 109, 035502		58
2264	First-order Raman scattering of the MAX phases Ta <sub>4</sub> AlC <sub>3</sub> , Nb <sub>4</sub> AlC <sub>3</sub> , Ti <sub>4</sub> AlN <sub>3</sub> , and Ta <sub>2</sub> AlC. <b>2012</b> , 43, 954-958		28
2263	MXene: a promising transition metal carbide anode for lithium-ion batteries. <b>2012</b> , 16, 61-64		963
2262	Recent advances in free-standing two-dimensional crystals with atomic thickness: design, assembly and transfer strategies. <b>2013</b> , 42, 8187-99		342

2261	New two-dimensional niobium and vanadium carbides as promising materials for Li-ion batteries. <b>2013</b> , 135, 15966-9	1168
2260	Cation intercalation and high volumetric capacitance of two-dimensional titanium carbide. <b>2013</b> , 341, 1502-5	2510
2259	Liquid Exfoliation of Layered Materials. <b>2013</b> , 340, 1226419-1226419	2604
2258	Synthesis of a new graphene-like transition metal carbide by de-intercalating Ti <sub>3</sub> AlC <sub>2</sub> . <b>2013</b> , 109, 295-298	105
2257	Oxygen adsorption and dissociation during the oxidation of monolayer Ti <sub>2</sub> C. <b>2013</b> , 1, 13672	68
2256	High temperature solution growth and characterization of Cr <sub>2</sub> AlC single crystals. <b>2013</b> , 384, 88-95	34
2255	Two-dimensional titanium carbonitrides and their hydroxylated derivatives: Structural, electronic properties and stability of MXenes Ti <sub>3</sub> C <sub>2</sub> N <sub>x</sub> (OH) <sub>2</sub> from DFTB calculations. <b>2013</b> , 207, 42-48	103
2254	Hybrid density functional study of structural and electronic properties of functionalized Tin+1Xn (X=C, N) monolayers. <b>2013</b> , 87,	334
2253	Electrochemical performance of carbide-derived carbon anodes for lithium-ion batteries. <b>2013</b> , 74, 1045-1055	17
2252	Progress, challenges, and opportunities in two-dimensional materials beyond graphene. <b>2013</b> , 7, 2898-926	3414
2251	Intercalation and delamination of layered carbides and carbonitrides. <b>2013</b> , 4, 1716	1504
2250	Graphene-analogous low-dimensional materials. <b>2013</b> , 58, 1244-1315	600
2249	Novel Electronic and Magnetic Properties of Two-Dimensional Transition Metal Carbides and Nitrides. <b>2013</b> , 23, 2185-2192	979
2248	First-principles analysis of MoS <sub>2</sub> /Ti <sub>2</sub> C and MoS <sub>2</sub> /Ti <sub>2</sub> CY <sub>2</sub> (Y=F and OH) all-2D semiconductor/metal contacts. <b>2013</b> , 87,	133
2247	Magnetic self-organized atomic laminate from first principles and thin film synthesis. <b>2013</b> , 110, 195502	108
2246	Kinetics of aluminum extraction from Ti <sub>3</sub> AlC <sub>2</sub> in hydrofluoric acid. <b>2013</b> , 139, 147-152	227
2245	Structural and Electronic Properties and Stability of MXenes Ti <sub>2</sub> C and Ti <sub>3</sub> C <sub>2</sub> Functionalized by Methoxy Groups. <b>2013</b> , 117, 13637-13643	153
2244	MXene: a new family of promising hydrogen storage medium. <b>2013</b> , 117, 14253-60	298

2243	Corrosion behavior of Ti <sub>3</sub> AlC <sub>2</sub> in molten KOH at 700 °C. <b>2013</b> , 2, 313-317	11
2242	Electronic Properties of $\pi$ -Conjugated Nickel Bis(dithiolene) Network and Its Addition Reactivity with Ethylene. <b>2013</b> , 117, 14125-14129	30
2241	Graphene-like transition-metal nanocarbides and nanonitrides. <b>2013</b> , 82, 735-746	60
2240	Graphene-like nanocarbides and nanonitrides of d metals (MXenes): synthesis, properties and simulation. <b>2013</b> , 8, 59-62	66
2239	Ultrathin nanosheets of MAX phases with enhanced thermal and mechanical properties in polymeric compositions: Ti <sub>3</sub> Si(0.75)Al(0.25)C <sub>2</sub> . <b>2013</b> , 52, 4361-5	91
2238	Ultrathin Nanosheets of MAX Phases with Enhanced Thermal and Mechanical Properties in Polymeric Compositions: Ti <sub>3</sub> Si <sub>0.75</sub> Al <sub>0.25</sub> C <sub>2</sub> . <b>2013</b> , 125, 4457-4461	8
2237	Elastic Properties, Raman and Infrared Spectroscopy. <b>2013</b> , 65-105	3
2236	Synthesis and Decomposition of Ti <sub>3</sub> SiC <sub>2</sub> under 1-5GPa at 1400°C. <b>2014</b> , 602-603, 499-502	4
2235	Synthesis, characterization, and tribological properties of two-dimensional Ti <sub>3</sub> C <sub>2</sub> . <b>2014</b> , 49, 926-932	71
2234	Trends in electronic structures and structural properties of MAX phases: a first-principles study on M(2)AlC (M = Sc, Ti, Cr, Zr, Nb, Mo, Hf, or Ta), M(2)AlN, and hypothetical M(2)AlB phases. <b>2014</b> , 26, 505503	69
2233	High capacitance of surface-modified 2D titanium carbide in acidic electrolyte. <b>2014</b> , 48, 118-122	308
2232	Manipulation of electronic and magnetic properties of M <sub>2</sub> C (M = Hf, Nb, Sc, Ta, Ti, V, Zr) monolayer by applying mechanical strains. <b>2014</b> , 104, 133106	109
2231	Enhanced and tunable surface plasmons in two-dimensional Ti <sub>3</sub> C <sub>2</sub> stacks: Electronic structure versus boundary effects. <b>2014</b> , 89,	90
2230	Microstructure and phase transformation of Ti <sub>3</sub> AC <sub>2</sub> (A = Al, Si) in hydrofluoric acid solution. <b>2014</b> , 49, 813-819	16
2229	Two-dimensional square ternary Cu <sub>2</sub> MX <sub>4</sub> (M = Mo, W; X = S, Se) monolayers and nanoribbons predicted from density functional theory. <b>2014</b> , 89,	23
2228	Structure of nanocrystalline Ti <sub>3</sub> C <sub>2</sub> MXene using atomic pair distribution function. <b>2014</b> , 112, 125501	129
2227	Conductive two-dimensional titanium carbide 'clay' with high volumetric capacitance. <b>2014</b> , 516, 78-81	2849
2226	Achieving a direct band gap in oxygen functionalized-monolayer scandium carbide by applying an electric field. <b>2014</b> , 16, 26273-8	60

2225	First Principles Calculations of the Relative Stability, Structure and Electronic Properties of Two Dimensional Metal Carbides and Nitrides. <b>2014</b> , 602-603, 527-531	18
2224	Investigation of interfacial reaction product of SiCf/C/Mo/Ti6Al4V composite through Raman spectroscopy. <b>2014</b> , 104, 081611	8
2223	Crystal Structure and Elastic Properties of Hypothesized MAX Phase-Like Compound (Cr <sub>2</sub> Hf) <sub>2</sub> Al <sub>3</sub> C <sub>3</sub> . <b>2014</b> , 97, 2646-2653	7
2222	Microstructural characterization and compression properties of Ti <sub>0.61</sub> Cu(Al) composite synthesized from Cu and Ti <sub>3</sub> AlC <sub>2</sub> powders. <b>2014</b> , 602, 53-57	45
2221	A Nanolaminated Magnetic Phase: Mn <sub>2</sub> GaC. <b>2014</b> , 2, 89-93	94
2220	First-principles study on structural, electronic and elastic properties of graphene-like hexagonal Ti <sub>2</sub> C monolayer. <b>2014</b> , 83, 290-293	70
2219	25th anniversary article: MXenes: a new family of two-dimensional materials. <i>Advanced Materials</i> , <b>2014</b> , 26, 992-1005	24 3141
2218	Effect of helium irradiation on Ti <sub>3</sub> AlC <sub>2</sub> at 500°C. <b>2014</b> , 77, 1-4	48
2217	Epoxy nanocomposites with two-dimensional transition metal dichalcogenide additives. <b>2014</b> , 8, 5282-9	129
2216	Morphology dependence of molybdenum disulfide transparent counter electrode in dye-sensitized solar cells. <b>2014</b> , 2, 3919	129
2215	Tuning Electronic Properties of Germanane Layers by External Electric Field and Biaxial Tensile Strain: A Computational Study. <b>2014</b> , 118, 1148-1154	85
2214	Ion intercalation into two-dimensional transition-metal carbides: global screening for new high-capacity battery materials. <b>2014</b> , 136, 16270-6	404
2213	Flexible and conductive MXene films and nanocomposites with high capacitance. <b>2014</b> , 111, 16676-81	1204
2212	The effect of the interlayer element on the exfoliation of layered MoAC (A = Al, Si, P, Ga, Ge, As or In) MAX phases into two-dimensional MoC nanosheets. <b>2014</b> , 15, 014208	58
2211	First principles investigation of point defect-related properties in Ti <sub>2</sub> AlN. <b>2014</b> , 4, 42014-42021	13
2210	Investigations on V <sub>2</sub> C and V <sub>2</sub> CX <sub>2</sub> (X = F, OH) Monolayer as a Promising Anode Material for Li Ion Batteries from First-Principles Calculations. <b>2014</b> , 118, 24274-24281	215
2209	Fabrication and mechanical properties of pressureless melt infiltrated magnesium alloy composites reinforced with TiC and Ti <sub>2</sub> AlC particles. <b>2014</b> , 618, 511-522	42
2208	In situ environmental transmission electron microscopy study of oxidation of two-dimensional Ti <sub>3</sub> C <sub>2</sub> and formation of carbon-supported TiO <sub>2</sub> . <b>2014</b> , 2, 14339	211

- 2207 One-step synthesis of nanocrystalline transition metal oxides on thin sheets of disordered graphitic carbon by oxidation of MXenes. **2014**, 50, 7420-3 427
- 2206 Dye adsorption and decomposition on two-dimensional titanium carbide in aqueous media. **2014**, 2, 14334-14339 489
- 2205 A mild route to mesoporous Mo<sub>2</sub>C-C hybrid nanospheres for high performance lithium-ion batteries. **2014**, 6, 6151-7 161
- 2204 Tunable indirect to direct band gap transition of monolayer Sc<sub>2</sub>O<sub>3</sub> by the strain effect. **2014**, 6, 14724-8 121
- 2203 Diffusion driven layer-by-layer assembly of graphene oxide nanosheets into porous three-dimensional macrostructures. **2014**, 5, 5254 103
- 2202 Synthesis and characterization of two-dimensional Nb<sub>4</sub>C<sub>3</sub> (MXene). **2014**, 50, 9517-20 321
- 2201 Preparation of MXene-Cu<sub>2</sub>O nanocomposite and effect on thermal decomposition of ammonium perchlorate. **2014**, 35, 62-65 71
- 2200 Role of Strain and Concentration on the Li Adsorption and Diffusion Properties on Ti<sub>2</sub>C Layer. **2014**, 118, 14983-14990 72
- 2199 Two-dimensional Ti<sub>3</sub>C<sub>2</sub> as anode material for Li-ion batteries. **2014**, 47, 80-83 316
- 2198 Ti<sub>3</sub>C<sub>2</sub> MXene as a high capacity electrode material for metal (Li, Na, K, Ca) ion batteries. **2014**, 6, 11173-9 847
- 2197 Prediction and characterization of MXene nanosheet anodes for non-lithium-ion batteries. **2014**, 8, 9606-15 644
- 2196 Coexistence of Ferromagnetic and a Re-entrant Cluster Glass State in the Layered Quaternary (Cr<sub>1-x</sub>Mn<sub>x</sub>)<sub>2</sub>GeC. **2014**, 2, 192-198 38
- 2195 Mechanisms in the solution growth of free-standing two-dimensional inorganic nanomaterials. **2014**, 6, 6398-414 46
- 2194 Two-dimensional molybdenum carbides: potential thermoelectric materials of the MXene family. **2014**, 16, 7841-9 290
- 2193 Electronic and optical properties of 2D graphene-like compounds titanium carbides and nitrides: DFT calculations. **2014**, 195, 61-69 113
- 2192 Transparent Conductive Two-Dimensional Titanium Carbide Epitaxial Thin Films. **2014**, 26, 2374-2381 778
- 2191 Unique cyclic performance of post-treated carbide-derived carbon as an anode electrode. **2014**, 78, 91-101 11
- 2190 Role of surface structure on Li-ion energy storage capacity of two-dimensional transition-metal carbides. **2014**, 136, 6385-94 864

2189	Graphene, inorganic graphene analogs and their composites for lithium ion batteries. <b>2014</b> , 2, 12104	215
2188	Nanoscale Transition Metal Dichalcogenides: Structures, Properties, and Applications. <b>2014</b> , 39, 319-367	106
2187	Tunable Band Structures of Heterostructured Bilayers with Transition-Metal Dichalcogenide and MXene Monolayer. <b>2014</b> , 118, 5593-5599	122
2186	Two-dimensional Sc <sub>2</sub> C: A reversible and high-capacity hydrogen storage material predicted by first-principles calculations. <b>2014</b> , 39, 10606-10612	120
2185	Microstructure and adsorption property of nanocarbide-derived carbon (CDC) synthesized at ambient temperature. <b>2014</b> , 130, 188-191	5
2184	Not just graphene: The wonderful world of carbon and related nanomaterials. <b>2015</b> , 40, 1110-1121	62
2183	Phase-engineered transition-metal dichalcogenides for energy and electronics. <b>2015</b> , 40, 585-591	49
2182	Spectroscopic evidence in the visible-ultraviolet energy range of surface functionalization sites in the multilayer Ti <sub>3</sub> C <sub>2</sub> MXene. <b>2015</b> , 91,	55
2181	OH-terminated two-dimensional transition metal carbides and nitrides as ultralow work function materials. <b>2015</b> , 92,	214
2180	Large-gap two-dimensional topological insulator in oxygen functionalized MXene. <b>2015</b> , 92,	169
2179	Dirac points with giant spin-orbit splitting in the electronic structure of two-dimensional transition-metal carbides. <b>2015</b> , 92,	47
2178	Anisotropic electronic conduction in stacked two-dimensional titanium carbide. <b>2015</b> , 5, 16329	79
2177	Probing the Mechanism of High Capacitance in 2D Titanium Carbide Using In Situ X-Ray Absorption Spectroscopy. <b>2015</b> , 5, 1500589	374
2176	Innovation and discovery of graphene-like materials via density-functional theory computations. <b>2015</b> , 5, 360-379	172
2175	Sulfophile leitfähige Substrate als Trägermaterialien für Schwefelkathoden. <b>2015</b> , 127, 11170-11172	19
2174	Designing host materials for sulfur cathodes: from physical confinement to surface chemistry. <b>2015</b> , 54, 11018-20	196
2173	Effect of MXene (Nano-Ti <sub>3</sub> C <sub>2</sub> ) on Early-Age Hydration of Cement Paste. <b>2015</b> , 2015, 1-8	5
2172	Shear induced micromechanical synthesis of Ti <sub>3</sub> SiC <sub>2</sub> MAXene nanosheets for functional applications. <b>2015</b> , 5, 51242-51247	10

2171	Two-Dimensional Vanadium Carbide (MXene) as Positive Electrode for Sodium-Ion Capacitors. <b>2015</b> , 6, 2305-9	294
2170	Reactivity of Zircaloy-4 with Ti <sub>3</sub> SiC <sub>2</sub> and Ti <sub>2</sub> AlC in the 1100–1300 °C temperature range. <b>2015</b> , 460, 122-129	47
2169	Carbon nanofiber bridged two-dimensional titanium carbide as a superior anode for lithium-ion batteries. <b>2015</b> , 3, 14096-14100	124
2168	First-principles design of silicene/Sc <sub>2</sub> CF <sub>2</sub> heterojunction as a promising candidate for field effect transistor. <b>2015</b> , 117, 085306	21
2167	Direct Measurement of Surface Termination Groups and Their Connectivity in the 2D MXene V <sub>2</sub> CT <sub>x</sub> Using NMR Spectroscopy. <b>2015</b> , 119, 13713-13720	113
2166	Reinforcing Effects of Modified Nanodiamonds on the Physical Properties of Polymer-Based Nanocomposites: A Review. <b>2015</b> , 54, 861-879	27
2165	Molecular dynamic study of the mechanical properties of two-dimensional titanium carbides Ti <sub>(n+1)</sub> C <sub>(n)</sub> (MXenes). <b>2015</b> , 26, 265705	144
2164	Synthesis and Structural Characterization of Ti <sub>2</sub> C Nanosheets. <b>2015</b> , 833, 44-47	3
2163	Covalency-Dependent Vibrational Dynamics in Two-Dimensional Titanium Carbides. <b>2015</b> , 119, 12977-84	24
2162	Phase stability and elastic properties of graphene-like Tan+1Cn (n = 1, 2, or 3) from first-principles calculations. <b>2015</b> , 19, S264-S266	6
2161	Effect of surface functionalization on the electronic transport properties of Ti <sub>3</sub> C <sub>2</sub> MXene. <b>2015</b> , 111, 67002	65
2160	Exploring the possibilities of two-dimensional transition metal carbides as anode materials for sodium batteries. <b>2015</b> , 17, 5000-5	118
2159	Small molecules make big differences: molecular doping effects on electronic and optical properties of phosphorene. <b>2015</b> , 26, 095201	136
2158	Sulfur cathodes based on conductive MXene nanosheets for high-performance lithium-sulfur batteries. <b>2015</b> , 54, 3907-11	848
2157	Atomic-scale recognition of surface structure and intercalation mechanism of Ti <sub>3</sub> C <sub>2</sub> X. <b>2015</b> , 137, 2715-21	361
2156	Computational studies on structural and electronic properties of functionalized MXene monolayers and nanotubes. <b>2015</b> , 3, 4960-4966	101
2155	Penta-graphene: A new carbon allotrope. <b>2015</b> , 112, 2372-7	763
2154	Two-dimensional titanium carbide for efficiently reductive removal of highly toxic chromium(VI) from water. <b>2015</b> , 7, 1795-803	339



2153	CO <sub>2</sub> and temperature dual responsive "Smart" MXene phases. <b>2015</b> , 51, 314-7	174
2152	Sulfur Cathodes Based on Conductive MXene Nanosheets for High-Performance Lithium-Sulfur Batteries. <b>2015</b> , 127, 3979-3983	158
2151	Synthesis of carbon/sulfur nanolaminates by electrochemical extraction of titanium from Ti <sub>3</sub> C <sub>2</sub> . <b>2015</b> , 54, 4810-4	81
2150	Intriguing electronic properties of two-dimensional MoS <sub>2</sub> /TM <sub>2</sub> CO <sub>2</sub> (TM = Ti, Zr, or Hf) hetero-bilayers: type-II semiconductors with tunable band gaps. <b>2015</b> , 26, 135703	42
2149	Fabrication of layered Ti <sub>3</sub> C <sub>2</sub> with an accordion-like structure as a potential cathode material for high performance lithium-sulfur batteries. <b>2015</b> , 3, 7870-7876	131
2148	TiO <sub>2</sub> nanoparticle modified organ-like Ti <sub>3</sub> C <sub>2</sub> MXene nanocomposite encapsulating hemoglobin for a mediator-free biosensor with excellent performances. <b>2015</b> , 74, 1022-8	225
2147	Aqueous dispersions of few-layer-thick chemically modified magnesium diboride nanosheets by ultrasonication assisted exfoliation. <b>2015</b> , 5, 10522	54
2146	Two-Dimensional, Ordered, Double Transition Metals Carbides (MXenes). <b>2015</b> , 9, 9507-16	923
2145	Self-assembled Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene film with high gravimetric capacitance. <b>2015</b> , 51, 13531-3	118
2144	Effect of Postetch Annealing Gas Composition on the Structural and Electrochemical Properties of Ti <sub>2</sub> C <sub>T<sub>x</sub></sub> MXene Electrodes for Supercapacitor Applications. <b>2015</b> , 27, 5314-5323	535
2143	Electrochemical performance of Ti <sub>3</sub> C <sub>2</sub> supercapacitors in KOH electrolyte. <b>2015</b> , 4, 130-134	57
2142	Two-dimensional titanium carbide electrode with large mass loading for supercapacitor. <b>2015</b> , 294, 354-359	158
2141	Synthesis of two-dimensional molybdenum carbide, Mo <sub>2</sub> C, from the gallium based atomic laminate Mo <sub>2</sub> Ga <sub>2</sub> C. <b>2015</b> , 108, 147-150	225
2140	Recent advances in MXene: Preparation, properties, and applications. <b>2015</b> , 10, 276-286	520
2139	Amine-Assisted Delamination of Nb <sub>2</sub> C MXene for Li-Ion Energy Storage Devices. <i>Advanced Materials</i> , <b>2015</b> , 27, 3501-6	24 555
2138	Large-scale delamination of multi-layers transition metal carbides and carbonitrides "MXenes". <b>2015</b> , 44, 9353-8	405
2137	Mg intercalation into Ti <sub>2</sub> C building block. <b>2015</b> , 629, 36-39	12
2136	Two-dimensional materials and their prospects in transistor electronics. <b>2015</b> , 7, 8261-83	415

2135	Binder-free layered Ti <sub>3</sub> C <sub>2</sub> /CNTs nanocomposite anodes with enhanced capacity and long-cycle life for lithium-ion batteries. <b>2015</b> , 44, 7123-6	74
2134	Synthesis of Carbon/Sulfur Nanolaminates by Electrochemical Extraction of Titanium from Ti <sub>2</sub> SC. <b>2015</b> , 127, 4892-4896	19
2133	Flexible two-dimensional Ti <sub>n</sub> +1C <sub>n</sub> (n = 1, 2 and 3) and their functionalized MXenes predicted by density functional theories. <b>2015</b> , 17, 15348-54	165
2132	Achieving type I, II, and III heterojunctions using functionalized MXene. <b>2015</b> , 7, 7163-9	84
2131	High mass loading, binder-free MXene anodes for high areal capacity Li-ion batteries. <b>2015</b> , 163, 246-251	169
2130	Enhanced supercapacitive performance of delaminated two-dimensional titanium carbide/carbon nanotube composites in alkaline electrolyte. <b>2015</b> , 284, 38-43	154
2129	A novel nitrite biosensor based on the direct electrochemistry of hemoglobin immobilized on MXene-Ti <sub>3</sub> C <sub>2</sub> . <b>2015</b> , 218, 60-66	276
2128	Vibrational properties of Ti <sub>3</sub> C <sub>2</sub> and Ti <sub>3</sub> C <sub>2</sub> T <sub>2</sub> (T = O, F, OH) monosheets by first-principles calculations: a comparative study. <b>2015</b> , 17, 9997-10003	291
2127	Vertical 2D Heterostructures. <b>2015</b> , 45, 85-109	127
2126	Pseudocapacitance of MXene nanosheets for high-power sodium-ion hybrid capacitors. <b>2015</b> , 6, 6544	707
2125	Novel Hierarchical TiO <sub>2</sub> /C Nanocomposite with Enhanced Photocatalytic Performance. <b>2015</b> , 10, 1550064	18
2124	Charge- and Size-Selective Ion Sieving Through Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene Membranes. <b>2015</b> , 6, 4026-31	515
2123	Ultrathin Two-Dimensional Nanomaterials. <b>2015</b> , 9, 9451-69	1342
2122	Surface group modification and carrier transport properties of layered transition metal carbides (Ti <sub>2</sub> CT(x), T: -OH, -F and -O). <b>2015</b> , 7, 19390-6	194
2121	Recent Advances in Two-Dimensional Materials beyond Graphene. <b>2015</b> , 9, 11509-39	1581
2120	Controlling the actuation properties of MXene paper electrodes upon cation intercalation. <b>2015</b> , 17, 27-35	135
2119	Magnetotransport properties of nearly-free electrons in two-dimensional hexagonal metals and application to the Mn+1AX <sub>n</sub> phases. <b>2015</b> , 92,	24
2118	Enhancement of the electrical properties of MXene Ti <sub>3</sub> C <sub>2</sub> nanosheets by post-treatments of alkalization and calcination. <b>2015</b> , 160, 537-540	134

2117	Effect of lithium and sodium ion adsorption on the electronic transport properties of Ti <sub>3</sub> C <sub>2</sub> MXene. <b>2015</b> , 359, 153-157	39
2116	Synthesis and Characterization of Novel AlF <sub>3</sub> Cubes. <b>2015</b> , 10, 1550071	1
2115	Noncovalent Molecular Doping of Two-Dimensional Materials. <b>2015</b> , 1, 542-557	35
2114	Role of the surface effect on the structural, electronic and mechanical properties of the carbide MXenes. <b>2015</b> , 111, 26007	161
2113	Large-area high-quality 2D ultrathin Mo <sub>2</sub> C superconducting crystals. <b>2015</b> , 14, 1135-41	674
2112	Chemical vapour deposition: Transition metal carbides go 2D. <b>2015</b> , 14, 1079-80	213
2111	Exploring the potential of exfoliated ternary ultrathin Ti <sub>4</sub> AlN <sub>3</sub> nanosheets for fabricating hybrid patterned polymer brushes. <b>2015</b> , 5, 70339-70344	21
2110	Rational design of nanomaterials for water treatment. <b>2015</b> , 7, 17167-94	157
2109	Heavy-Metal Adsorption Behavior of Two-Dimensional Alkalization-Intercalated MXene by First-Principles Calculations. <b>2015</b> , 119, 20923-20930	151
2108	High and anisotropic carrier mobility in experimentally possible Ti <sub>2</sub> CO <sub>2</sub> (MXene) monolayers and nanoribbons. <b>2015</b> , 7, 16020-5	176
2107	Synthesis of Nb <sub>2</sub> AlC Material by High Temperature Solid State Reaction Method. <b>2015</b> , 655, 240-243	3
2106	Preparation and tribological properties of Ti <sub>3</sub> C <sub>2</sub> (OH) <sub>2</sub> nanosheets as additives in base oil. <b>2015</b> , 5, 2762-2767	80
2105	Supercapacitor electrode materials: nanostructures from 0 to 3 dimensions. <b>2015</b> , 8, 702-730	1739
2104	An Organ-Like Titanium Carbide Material (MXene) with Multilayer Structure Encapsulating Hemoglobin for a Mediator-Free Biosensor. <b>2015</b> , 162, B16-B21	187
2103	Flexible MXene/carbon nanotube composite paper with high volumetric capacitance. <i>Advanced Materials</i> , <b>2015</b> , 27, 339-45	24 860
2102	Study on the evolution processes from TiC <sub>x</sub> to TiB <sub>2</sub> induced by B in Al melt. <b>2015</b> , 100, 68-73	6
2101	Thermal stability of two-dimensional Ti <sub>2</sub> C nanosheets. <b>2015</b> , 41, 2631-2635	102
2100	Synthesis of two-dimensional materials by selective extraction. <b>2015</b> , 48, 128-35	456

2099	MXene nanoribbons. <b>2015</b> , 3, 879-888		51
2098	Synthesis and thermal stability of two-dimensional carbide MXene Ti <sub>3</sub> C <sub>2</sub> . <b>2015</b> , 191, 33-40		370
2097	Regulating the electrical behaviors of 2D inorganic nanomaterials for energy applications. <b>2015</b> , 11, 654-66		36
2096	Synthesis of single crystals of V <sub>2</sub> AlC phase by high-temperature solution growth and slow cooling technique. <b>2015</b> , 83, 304-309		25
2095	Science and technology roadmap for graphene, related two-dimensional crystals, and hybrid systems. <b>2015</b> , 7, 4598-810		2015
2094	Exploring and Tailoring Structural Properties of the Two-Dimensional Family of MXenes. <b>2016</b> , 437-438		
2093	Theoretical Study on the Metal-Insulator Control by Atomic Adsorption onto the MXene Dioxide Ti <sub>2</sub> CO <sub>2</sub> . <b>2016</b> , 37, 441-445		
2092	Promising prospects for 2D d <sup>2</sup> 4 M <sub>3</sub> C <sub>2</sub> transition metal carbides (MXenes) in N <sub>2</sub> capture and conversion into ammonia. <b>2016</b> , 9, 2545-2549		298
2091	Synthesis of Two-Dimensional Materials for Capacitive Energy Storage. <i>Advanced Materials</i> , <b>2016</b> , 28, 6104-35	24	441
2090	A Two-Dimensional Zirconium Carbide by Selective Etching of Al <sub>3</sub> C <sub>3</sub> from Nanolaminated Zr <sub>3</sub> Al <sub>3</sub> C <sub>5</sub> . <b>2016</b> , 55, 5008-13		247
2089	Synthesis and Characterization of 2D Molybdenum Carbide (MXene). <b>2016</b> , 26, 3118-3127		640
2088	Fabrication of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene Transparent Thin Films with Tunable Optoelectronic Properties. <b>2016</b> , 2, 1600050		407
2087	Two-Step Oxidation of Mxene in the Synthesis of Layer-Stacked Anatase Titania with Enhanced Lithium-Storage Performance. <b>2016</b> , 3, 871-876		40
2086	Highly Conductive Optical Quality Solution-Processed Films of 2D Titanium Carbide. <b>2016</b> , 26, 4162-4168		470
2085	Ultrathin MXene-Micropattern-Based Field-Effect Transistor for Probing Neural Activity. <i>Advanced Materials</i> , <b>2016</b> , 28, 3333-9	24	356
2084	Pseudocapacitive Electrodes Produced by Oxidant-Free Polymerization of Pyrrole between the Layers of 2D Titanium Carbide (MXene). <i>Advanced Materials</i> , <b>2016</b> , 28, 1517-22	24	614
2083	Review Two-Dimensional Layered Materials for Energy Storage Applications. <b>2016</b> , 5, Q3021-Q3025		45
2082	Vibrational and mechanical properties of single layer MXene structures: a first-principles investigation. <b>2016</b> , 27, 335702		138

2081	Porous Two-Dimensional Transition Metal Carbide (MXene) Flakes for High-Performance Li-Ion Storage. <b>2016</b> , 3, 689-693	298
2080	A Two-Dimensional Zirconium Carbide by Selective Etching of Al <sub>3</sub> C <sub>3</sub> from Nanolaminated Zr <sub>3</sub> Al <sub>3</sub> C <sub>5</sub> . <b>2016</b> , 128, 5092-5097	55
2079	Searching for Highly Active Catalysts for Hydrogen Evolution Reaction Based on O-Terminated MXenes through a Simple Descriptor. <b>2016</b> , 28, 9026-9032	165
2078	Synthesis and DFT investigation of new bismuth-containing MAX phases. <b>2016</b> , 6, 18829	82
2077	The thermal and electrical properties of the promising semiconductor MXene Hf <sub>2</sub> CO <sub>2</sub> . <b>2016</b> , 6, 27971	115
2076	Effects of Applied Potential and Water Intercalation on the Surface Chemistry of Ti <sub>2</sub> C and Mo <sub>2</sub> C MXenes. <b>2016</b> , 120, 28432-28440	80
2075	TiCO Nanotubes with Negative Strain Energies and Tunable Band Gaps Predicted from First-Principles Calculations. <b>2016</b> , 7, 5280-5284	24
2074	Electronic properties of freestanding Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene monolayers. <b>2016</b> , 108, 033102	120
2073	Tunable electronic and magnetic properties of Cr <sub>2</sub> M <sub>2</sub> C <sub>2</sub> T <sub>2</sub> (M = Ti or V; T = O, OH or F). <b>2016</b> , 109, 203109	55
2072	Computational characterization of lightweight multilayer MXene Li-ion battery anodes. <b>2016</b> , 108, 023901	66
2071	Optical properties of functionalized Ti <sub>3</sub> C <sub>2</sub> T <sub>2</sub> (T = F, O, OH) MXene: First-principles calculations. <b>2016</b> , 6, 055105	123
2070	Transport properties of a highly conductive 2D Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene/graphene composite. <b>2016</b> , 109, 043109	65
2069	Recent advances in 2D thermoelectric materials. <b>2016</b> ,	4
2068	Monolayer MXenes: promising half-metals and spin gapless semiconductors. <b>2016</b> , 8, 8986-94	265
2067	Mn <sub>2</sub> C monolayer: a 2D antiferromagnetic metal with high Néel temperature and large spin-orbit coupling. <b>2016</b> , 8, 12939-45	94
2066	Structural, electronic and mechanical properties of (Nb <sub>x</sub> Ti <sub>1-x</sub> ) <sub>2</sub> SC and (Nb <sub>x</sub> Zr <sub>1-x</sub> ) <sub>2</sub> SC (0 ≤ x ≤ 1) from first-principles investigations. <b>2016</b> , 1090, 58-66	9
2065	Enhanced supercapacitive performance of manganese oxides doped two-dimensional titanium carbide nanocomposite in alkaline electrolyte. <b>2016</b> , 685, 194-201	99
2064	Lithium-ion capacitors with 2D Nb <sub>2</sub> C <sub>T<sub>x</sub></sub> (MXene) [carbon nanotube electrodes. <b>2016</b> , 326, 686-694	138

2063	Synthesis and Charge Storage Properties of Hierarchical Niobium Pentoxide/Carbon/Niobium Carbide (MXene) Hybrid Materials. <b>2016</b> , 28, 3937-3943	172
2062	Surface modified MXene Ti3C2 multilayers by aryl diazonium salts leading to large-scale delamination. <b>2016</b> , 384, 287-293	115
2061	Synthesis of two-dimensional titanium nitride Ti4N3 (MXene). <b>2016</b> , 8, 11385-91	487
2060	Interlayer coupling in two-dimensional titanium carbide MXenes. <b>2016</b> , 18, 20256-60	74
2059	Structural Evolution and Electronic Properties of VnC2(0/-) and VnC4(0/-) (n = 1-6) Clusters: Insights from Photoelectron Spectroscopy and Theoretical Calculations. <b>2016</b> , 120, 1520-8	12
2058	A Ti-anchored Ti2CO2 monolayer (MXene) as a single-atom catalyst for CO oxidation. <b>2016</b> , 4, 4871-4876	190
2057	Frictional properties of Ti3AlC2 ceramic against different counterparts in deionized water and artificial seawater. <b>2016</b> , 42, 4578-4585	22
2056	Cu2O Hybridized Titanium Carbide with Open Conductive Frameworks for Lithium-ion Batteries. <b>2016</b> , 202, 24-31	45
2055	Charging/Discharging Dynamics in Two-Dimensional Titanium Carbide (MXene) Slit Nanopore: Insights from molecular dynamic study. <b>2016</b> , 196, 75-83	39
2054	Computational study of the structure, UV-vis absorption spectra and conductivity of biphenylene-based polymers and their boron nitride analogues. <b>2016</b> , 6, 49505-49516	15
2053	Dependence of elastic and optical properties on surface terminated groups in two-dimensional MXene monolayers: a first-principles study. <b>2016</b> , 6, 35731-35739	132
2052	Ion-Exchange and Cation Solvation Reactions in Ti3C2 MXene. <b>2016</b> , 28, 3507-3514	361
2051	Prediction of an ultrasoft graphene allotrope with Dirac cones. <b>2016</b> , 105, 323-329	42
2050	All-solid-state flexible microsupercapacitor based on two-dimensional titanium carbide. <b>2016</b> , 27, 1586-1591	48
2049	A two-step etching route to ultrathin carbon nanosheets for high performance electrical double layer capacitors. <b>2016</b> , 8, 11136-42	46
2048	Structure and crystallization behavior of poly(ethylene oxide)/Ti3C2Tx MXene nanocomposites. <b>2016</b> , 102, 119-126	52
2047	MXene-on-Paper Coplanar Microsupercapacitors. <b>2016</b> , 6, 1601372	269
2046	ZnO nanoparticle-decorated two-dimensional titanium carbide with enhanced supercapacitive performance. <b>2016</b> , 6, 88934-88942	62

2045	Stabilization and strengthening effects of functional groups in two-dimensional titanium carbide. <b>2016</b> , 94,	103
2044	Magnetic MAX phases from theory and experiments; a review. <b>2016</b> , 28, 433003	57
2043	Atomic Defects in Monolayer Titanium Carbide (TiCT) MXene. <b>2016</b> , 10, 9193-9200	465
2042	Structure and properties of phosphorene-like IV-VI 2D materials. <b>2016</b> , 27, 415203	41
2041	Electromagnetic interference shielding with 2D transition metal carbides (MXenes). <b>2016</b> , 353, 1137-40	2432
2040	Synthesis of a MoO <sub>3</sub> /Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> composite with enhanced capacitive performance for supercapacitors. <b>2016</b> , 6, 98506-98513	44
2039	2D Structures Beyond Graphene: The Brave New World of Layered Materials and How Computers Can Help Discover Them. <b>2016</b> , 95, 1-33	8
2038	Topological insulators in the ordered double transition metals M <sub>2</sub> M'C <sub>2</sub> MXenes (M'=Mo, W; M'=Ti, Zr, Hf). <b>2016</b> , 94,	145
2037	Synthesis of MAX Phases in the Hf-Al-C System. <b>2016</b> , 55, 10922-10927	36
2036	All-MXene (2D titanium carbide) solid-state microsupercapacitors for on-chip energy storage. <b>2016</b> , 9, 2847-2854	428
2035	A new 2D monolayer BiXene, M <sub>2</sub> C (M = Mo, Tc, Os). <b>2016</b> , 8, 15753-62	35
2034	Ti <sub>3</sub> C <sub>2</sub> MXenes with Modified Surface for High-Performance Electromagnetic Absorption and Shielding in the X-Band. <b>2016</b> , 8, 21011-9	532
2033	Theoretical Prediction of the Intrinsic Half-Metallicity in Surface-Oxygen-Passivated Cr <sub>2</sub> N MXene. <b>2016</b> , 120, 18850-18857	68
2032	Two-Dimensional Molybdenum Carbide (MXene) as an Efficient Electrocatalyst for Hydrogen Evolution. <b>2016</b> , 1, 589-594	752
2031	Three-dimensional porous MXene/layered double hydroxide composite for high performance supercapacitors. <b>2016</b> , 327, 221-228	178
2030	High temperature behavior of functional TiAlBSiN nanocomposite coatings. <b>2016</b> , 305, 49-61	25
2029	MnPSe Monolayer: A Promising 2D Visible-Light Photohydrolytic Catalyst with High Carrier Mobility. <b>2016</b> , 3, 1600062	216
2028	Synthesis and electrochemical performance of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> with hydrothermal process. <b>2016</b> , 12, 702-710	157

2027	Effects of 2-D transition metal carbide Ti <sub>2</sub> CT <sub>x</sub> on properties of epoxy composites. <b>2016</b> , 6, 87341-87352	57
2026	Ab-initio investigation of the finite-temperatures structural, elastic, and thermodynamic properties of Ti <sub>3</sub> AlC <sub>2</sub> and Ti <sub>3</sub> SiC <sub>2</sub> . <b>2016</b> , 124, 420-427	8
2025	Materials synthesis: Two-dimensional gallium nitride. <b>2016</b> , 15, 1153-1154	21
2024	Electrochemical and in-situ X-ray diffraction studies of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene in ionic liquid electrolyte. <b>2016</b> , 72, 50-53	92
2023	Computational discovery of stable M <sub>2</sub> AX phases. <b>2016</b> , 94,	50
2022	Theoretical prediction of MoN <sub>2</sub> monolayer as a high capacity electrode material for metal ion batteries. <b>2016</b> , 4, 15224-15231	154
2021	Mechanistic Insight into the Chemical Exfoliation and Functionalization of Ti <sub>3</sub> C <sub>2</sub> MXene. <b>2016</b> , 8, 24256-64	131
2020	2D materials for renewable energy storage devices: Outlook and challenges. <b>2016</b> , 52, 13528-13542	71
2019	Transition Metal-Promoted VCO (MXenes): A New and Highly Active Catalyst for Hydrogen Evolution Reaction. <b>2016</b> , 3, 1600180	204
2018	Remarkably improved hydrogen storage properties of NaAlH <sub>4</sub> doped with 2D titanium carbide. <b>2016</b> , 327, 519-525	57
2017	Recent advances in titanium-based electrode materials for stationary sodium-ion batteries. <b>2016</b> , 9, 2978-3006	293
2016	Solution-processed titanium carbide MXene films examined as highly transparent conductors. <b>2016</b> , 8, 16371-16378	165
2015	A Cr <sub>2</sub> CO <sub>2</sub> monolayer as a promising cathode for lithium and non-lithium ion batteries: a computational exploration. <b>2016</b> , 6, 81591-81596	22
2014	Direct Synthesis of Carbon-Molybdenum Carbide Nanosheet Composites via a Pseudotopotactic Solid-State Reaction. <b>2016</b> , 28, 8899-8904	6
2013	Schottky-Barrier-Free Contacts with Two-Dimensional Semiconductors by Surface-Engineered MXenes. <b>2016</b> , 138, 15853-15856	278
2012	Calorimetric Determination of Thermodynamic Stability of MAX and MXene Phases. <b>2016</b> , 120, 28131-28137	28
2011	Nanolaminated composite materials: structure, interface role and applications. <b>2016</b> , 6, 109361-109385	37
2010	Structural, electronic transport and optical properties of functionalized quasi-2D TiC <sub>2</sub> from first-principles calculations. <b>2016</b> , 390, 1009-1014	6



2009	Ferromagnetic and Half-Metallic FeC Monolayer Containing C Dimers. <b>2016</b> , 8, 26207-26212	44
2008	Anisotropic electrical and lattice transport properties of ordered quaternary phases Cr <sub>2</sub> TiAlC <sub>2</sub> and Mo <sub>2</sub> TiAlC <sub>2</sub> : A first principles study. <b>2016</b> , 380, 3748-3755	19
2007	Titanium carbide (MXene) nanosheets as promising microwave absorbers. <b>2016</b> , 42, 16412-16416	209
2006	2D nanostructures for water purification: graphene and beyond. <b>2016</b> , 8, 15115-31	242
2005	Thermoelectric performance of functionalized Sc <sub>2</sub> C MXenes. <b>2016</b> , 94,	66
2004	Transition Metal Carbides and Nitrides in Energy Storage and Conversion. <b>2016</b> , 3, 1500286	762
2003	Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> Filler Effect on the Proton Conduction Property of Polymer Electrolyte Membrane. <b>2016</b> , 8, 20352-63	66
2002	Membranen aus zweidimensionalen Materialien: eine neue Familie hochleistungsffiger Trennmembranen. <b>2016</b> , 128, 13580-13595	30
2001	Magnetically driven anisotropic structural changes in the atomic laminate Mn <sub>2</sub> GaC. <b>2016</b> , 93,	34
2000	First-principles study of size- and edge-dependent properties of MXene nanoribbons. <b>2016</b> , 93,	51
1999	Nearly free electron states in MXenes. <b>2016</b> , 93,	133
1998	Study of 2D MXene Cr <sub>2</sub> C material for hydrogen storage using density functional theory. <b>2016</b> , 389, 88-95	42
1997	Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXene)/polyacrylamide nanocomposite films. <b>2016</b> , 6, 72069-72073	112
1996	Computational studies on the structural, electronic and optical properties of graphene-like MXenes (M <sub>2</sub> CT <sub>2</sub> , M = Ti, Zr, Hf; T = O, F, OH) and their potential applications as visible-light driven photocatalysts. <b>2016</b> , 4, 12913-12920	137
1995	Electronic and Transport Properties of Ti <sub>2</sub> CO <sub>2</sub> MXene Nanoribbons. <b>2016</b> , 120, 17143-17152	35
1994	Two-Dimensional-Material Membranes: A New Family of High-Performance Separation Membranes. <b>2016</b> , 55, 13384-13397	408
1993	Immobilizing Polysulfides with MXene-Functionalized Separators for Stable Lithium-Sulfur Batteries. <b>2016</b> , 8, 29427-29433	171
1992	Proposing the prospects of TiCN transition metal carbides (MXenes) as anodes of Li-ion batteries: a DFT study. <b>2016</b> , 18, 32937-32943	78

1991	Bonding-restricted structure search for novel 2D materials with dispersed C2 dimers. <b>2016</b> , 6, 29531	13
1990	Novel amperometric glucose biosensor based on MXene nanocomposite. <b>2016</b> , 6, 36422	167
1989	Advances and challenges in chemistry of two-dimensional nanosheets. <b>2016</b> , 11, 793-816	124
1988	High-Capacitance Mechanism for TiCT MXene by in Situ Electrochemical Raman Spectroscopy Investigation. <b>2016</b> , 10, 11344-11350	359
1987	Structural stability and electronic properties of multi-functionalized two-dimensional chromium carbides. <b>2016</b> , 619, 131-136	19
1986	Organic-Base-Driven Intercalation and Delamination for the Production of Functionalized Titanium Carbide Nanosheets with Superior Photothermal Therapeutic Performance. <b>2016</b> , 55, 14569-14574	295
1985	Mass production of two-dimensional oxides by rapid heating of hydrous chlorides. <b>2016</b> , 7, 12543	56
1984	2D titanium carbide and transition metal oxides hybrid electrodes for Li-ion storage. <b>2016</b> , 30, 603-613	229
1983	One-step Solution Processing of Ag, Au and Pd@MXene Hybrids for SERS. <b>2016</b> , 6, 32049	200
1982	Site-projected electronic structure of two-dimensional TiC MXene: the role of the surface functionalization groups. <b>2016</b> , 18, 30946-30953	76
1981	Tailoring the Electronic Structure of Covalently Functionalized Germanane via the Interplay of Ligand Strain and Electronegativity. <b>2016</b> , 28, 8071-8077	49
1980	Organic-Base-Driven Intercalation and Delamination for the Production of Functionalized Titanium Carbide Nanosheets with Superior Photothermal Therapeutic Performance. <b>2016</b> , 128, 14789-14794	99
1979	Effect of Synthesis on Quality, Electronic Properties and Environmental Stability of Individual Monolayer Ti <sub>3</sub> C <sub>2</sub> MXene Flakes. <b>2016</b> , 2, 1600255	649
1978	Demonstration of Li-Ion Capacity of MAX Phases. <b>2016</b> , 1, 1094-1099	37
1977	MXene as a novel intercalation-type pseudocapacitive cathode and anode for capacitive deionization. <b>2016</b> , 4, 18265-18271	247
1976	New two-dimensional Mn-based MXenes with room-temperature ferromagnetism and half-metallicity. <b>2016</b> , 4, 11143-11149	105
1975	Quantative atomic column mapping of oxygen functionalized two-dimensional Ti <sub>3</sub> C <sub>2</sub> MXene sheets. <b>2016</b> , 514-515	
1974	Production of Two-Dimensional Nanomaterials via Liquid-Based Direct Exfoliation. <b>2016</b> , 12, 272-93	339

1973	Layered Orthorhombic Nb <sub>2</sub> O <sub>5</sub> @Nb <sub>4</sub> C <sub>3</sub> T <sub>x</sub> and TiO <sub>2</sub> @Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> Hierarchical Composites for High Performance Li-ion Batteries. <b>2016</b> , 26, 4143-4151	244
1972	Nanoscale Elastic Changes in 2D Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXene) Pseudocapacitive Electrodes. <b>2016</b> , 6, 1502290	92
1971	Two-Dimensional Materials for Beyond-Lithium-Ion Batteries. <b>2016</b> , 6, 1600025	418
1970	Two-Dimensional Nb-Based M <sub>4</sub> C <sub>3</sub> Solid Solutions (MXenes). <b>2016</b> , 99, 660-666	153
1969	Energy storage performance of V <sub>n+1</sub> C <sub>n</sub> monolayer as electrode material studied by first-principles calculations. <b>2016</b> , 6, 54999-55006	14
1968	Theoretical interpretation on lead adsorption behavior of new two-dimensional transition metal carbides and nitrides. <b>2016</b> , 684, 504-509	38
1967	Preparation and methane adsorption of two-dimensional carbide Ti <sub>2</sub> C. <b>2016</b> , 22, 915-922	57
1966	Cluster-Inspired Design of High-Capacity Anode for Li-Ion Batteries. <b>2016</b> , 1, 202-208	19
1965	A Honeycomb BeN <sub>2</sub> Sheet with a Desirable Direct Band Gap and High Carrier Mobility. <b>2016</b> , 7, 2664-70	72
1964	Two-Dimensional Titanium Carbide/RGO Composite for High-Performance Supercapacitors. <b>2016</b> , 8, 15661-7	193
1963	Directional anisotropy, finite size effect and elastic properties of hexagonal boron nitride. <b>2016</b> , 28, 295302	30
1962	High temperature spin-polarized semiconductivity with zero magnetization in two-dimensional Janus MXenes. <b>2016</b> , 4, 6500-6509	88
1961	Anodized Ti <sub>3</sub> SiC <sub>2</sub> As an Anode Material for Li-ion Microbatteries. <b>2016</b> , 8, 16670-6	28
1960	Titania Composites with 2 D Transition Metal Carbides as Photocatalysts for Hydrogen Production under Visible-Light Irradiation. <b>2016</b> , 9, 1490-7	173
1959	MXene Electrode for the Integration of WSe <sub>2</sub> and MoS <sub>2</sub> Field Effect Transistors. <b>2016</b> , 26, 5328-5334	132
1958	Fundamental insights into the electronic structure of zigzag MoS <sub>2</sub> nanoribbons. <b>2016</b> , 18, 4675-83	14
1957	Adsorption of uranyl species on hydroxylated titanium carbide nanosheet: A first-principles study. <b>2016</b> , 308, 402-10	84
1956	Probing the electrochemical capacitance of MXene nanosheets for high-performance pseudocapacitors. <b>2016</b> , 18, 4460-7	52

1955	NMR reveals the surface functionalisation of Ti <sub>3</sub> C <sub>2</sub> MXene. <b>2016</b> , 18, 5099-102	491
1954	The role of terminations and coordination atoms on the pseudocapacitance of titanium carbonitride monolayers. <b>2016</b> , 18, 4376-84	23
1953	Synthesis of urchin-like rutile titania carbon nanocomposites by iron-facilitated phase transformation of MXene for environmental remediation. <b>2016</b> , 4, 489-499	123
1952	Resolving the Structure of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXenes through Multilevel Structural Modeling of the Atomic Pair Distribution Function. <b>2016</b> , 28, 349-359	267
1951	Superior catalytic activity derived from a two-dimensional Ti <sub>3</sub> C <sub>2</sub> precursor towards the hydrogen storage reaction of magnesium hydride. <b>2016</b> , 52, 705-8	160
1950	X-ray photoelectron spectroscopy of select multi-layered transition metal carbides (MXenes). <b>2016</b> , 362, 406-417	834
1949	High adsorption capacity of heavy metals on two-dimensional MXenes: an ab initio study with molecular dynamics simulation. <b>2016</b> , 18, 228-33	75
1948	Low-dimensional carbon and MXene-based electrochemical capacitor electrodes. <b>2016</b> , 27, 172001	35
1947	Effect of Metal Ion Intercalation on the Structure of MXene and Water Dynamics on its Internal Surfaces. <b>2016</b> , 8, 8859-63	164
1946	Isolation of pristine MXene from Nb <sub>2</sub> AlC/Al <sub>2</sub> O <sub>3</sub> MAX phase: a first-principles study. <b>2016</b> , 18, 11073-80	27
1945	Sodium-Ion Intercalation Mechanism in MXene Nanosheets. <b>2016</b> , 10, 3334-41	315
1944	Hybrids of Two-Dimensional Ti <sub>3</sub> C <sub>2</sub> and TiO <sub>2</sub> Exposing {001} Facets toward Enhanced Photocatalytic Activity. <b>2016</b> , 8, 6051-60	424
1943	Ru layers electrodeposited onto highly stable Ti <sub>2</sub> AlC substrates as cathodes for hydrogen evolution in sulfuric acid solutions. <b>2016</b> , 766, 78-86	13
1942	Sn <sup>2+</sup> Ion Decorated Highly Conductive Ti <sub>3</sub> C <sub>2</sub> MXene: Promising Lithium-Ion Anodes with Enhanced Volumetric Capacity and Cyclic Performance. <b>2016</b> , 10, 2491-9	484
1941	Predicted Surface Composition and Thermodynamic Stability of MXenes in Solution. <b>2016</b> , 120, 3550-3556	143
1940	Thermoelectric Performance of the MXenes M <sub>2</sub> CO <sub>2</sub> (M = Ti, Zr, or Hf). <b>2016</b> , 28, 1647-1652	95
1939	Ab Initio Prediction and Characterization of Mo <sub>2</sub> C Monolayer as Anodes for Lithium-Ion and Sodium-Ion Batteries. <b>2016</b> , 7, 937-43	245
1938	Antibacterial Activity of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene. <b>2016</b> , 10, 3674-84	555

1937	Composites of TiO <sub>2</sub> Nanoparticles Deposited on Ti <sub>3</sub> C <sub>2</sub> MXene Nanosheets with Enhanced Electrochemical Performance. <b>2016</b> , 163, A785-A791	197
1936	Fabrication and thermal stability of two-dimensional carbide Ti <sub>3</sub> C <sub>2</sub> nanosheets. <b>2016</b> , 42, 8419-8424	187
1935	Efficient phosphate sequestration for water purification by unique sandwich-like MXene/magnetic iron oxide nanocomposites. <b>2016</b> , 8, 7085-93	262
1934	Promising electron mobility and high thermal conductivity in Sc <sub>2</sub> CT <sub>2</sub> (T = F, OH) MXenes. <b>2016</b> , 8, 6110-7	141
1933	Attempts to synthesise quaternary MAX phases (Zr,M) <sub>2</sub> AlC and Zr <sub>2</sub> (Al,A)C as a way to approach Zr <sub>2</sub> AlC. <b>2016</b> , 4, 137-144	54
1932	Control of electronic properties of 2D carbides (MXenes) by manipulating their transition metal layers. <b>2016</b> , 1, 227-234	242
1931	Prediction of Mobility, Enhanced Storage Capacity, and Volume Change during Sodiation on Interlayer-Expanded Functionalized Ti <sub>3</sub> C <sub>2</sub> MXene Anode Materials for Sodium-Ion Batteries. <b>2016</b> , 120, 5288-5296	177
1930	Investigations on Nb <sub>2</sub> C monolayer as promising anode material for Li or non-Li ion batteries from first-principles calculations. <b>2016</b> , 6, 27467-27474	96
1929	H <sub>2</sub> O <sub>2</sub> assisted room temperature oxidation of Ti <sub>2</sub> C MXene for Li-ion battery anodes. <b>2016</b> , 8, 7580-7	287
1928	First-principles study of metal/insulator control by ion adsorption on Ti <sub>2</sub> C MXene dioxide monolayers. <b>2016</b> , 9, 015001	19
1927	Improvement in mechanical/physical properties of TiC-based ceramics sintered at 1500 °C for inert matrix fuels. <b>2016</b> , 114, 5-8	25
1926	Structural Transformation of MXene (V <sub>2</sub> C, Cr <sub>2</sub> C, and Ta <sub>2</sub> C) with O Groups during Lithiation: A First-Principles Investigation. <b>2016</b> , 8, 74-81	120
1925	Preparation, mechanical and anti-friction performance of MXene/polymer composites. <b>2016</b> , 92, 682-689	183
1924	TiC <sub>2</sub> : a new two-dimensional sheet beyond MXenes. <b>2016</b> , 8, 233-42	107
1923	Two-Dimensional Titanium Carbide MXene As a Cathode Material for Hybrid Magnesium/Lithium-Ion Batteries. <b>2017</b> , 9, 4296-4300	149
1922	(111) TiO <sub>2-x</sub> /Ti <sub>3</sub> C <sub>2</sub> : Synergy of active facets, interfacial charge transfer and Ti <sup>3+</sup> doping for enhance photocatalytic activity. <b>2017</b> , 89, 16-25	121
1921	Substrate induced changes in atomically thin 2-dimensional semiconductors: Fundamentals, engineering, and applications. <b>2017</b> , 4, 011301	76
1920	Electronic structure and mechanical properties of layered compound YB <sub>2</sub> C <sub>2</sub> : A promising precursor for making two dimensional (2D) B <sub>2</sub> C <sub>2</sub> nets. <b>2017</b> , 33, 1044-1054	17

1919	Preparation of TiO <sub>2</sub> /Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> hybrid nanocomposites and their tribological properties as base oil lubricant additives. <b>2017</b> , 7, 4312-4319	60
1918	A novel route to prepare a Ti <sub>3</sub> SnC <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> composite. <b>2017</b> , 131, 80-83	14
1917	Enhanced Li-Ion Accessibility in MXene Titanium Carbide by Steric Chloride Termination. <b>2017</b> , 7, 1601873	124
1916	A Two-Dimensional Lamellar Membrane: MXene Nanosheet Stacks. <b>2017</b> , 56, 1825-1829	518
1915	A Two-Dimensional Lamellar Membrane: MXene Nanosheet Stacks. <b>2017</b> , 129, 1851-1855	75
1914	Magnetic, recyclable Pt <sub>y</sub> Co <sub>1-y</sub> /Ti <sub>3</sub> C <sub>2</sub> X <sub>2</sub> (X = O, F) catalyst: a facile synthesis and enhanced catalytic activity for hydrogen generation from the hydrolysis of ammonia borane. <b>2017</b> , 41, 2793-2799	49
1913	2D WC single crystal embedded in graphene for enhancing hydrogen evolution reaction. <b>2017</b> , 33, 356-362	109
1912	Alkylammonium Cation Intercalation into Ti <sub>3</sub> C <sub>2</sub> (MXene): Effects on Properties and Ion-Exchange Capacity Estimation. <b>2017</b> , 29, 1099-1106	126
1911	Synthesis and tribological property of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> nanosheets. <b>2017</b> , 52, 2200-2209	60
1910	Layered ternary Mn <sub>n</sub> AX <sub>n</sub> phases and their 2D derivative MXene: an overview from a thin-film perspective. <b>2017</b> , 50, 113001	157
1909	The strategies of advanced cathode composites for lithium-sulfur batteries. <b>2017</b> , 60, 175-185	19
1908	Recent advances in inorganic 2D materials and their applications in lithium and sodium batteries. <b>2017</b> , 5, 3735-3758	259
1907	Synthesis of nickel chalcogenide hollow spheres using an L-cysteine-assisted hydrothermal process for efficient supercapacitor electrodes. <b>2017</b> , 5, 3621-3627	85
1906	2D metal carbides and nitrides (MXenes) for energy storage. <b>2017</b> , 2,	3469
1905	Recent advances of supercapacitors based on two-dimensional materials. <b>2017</b> , 7, 1-12	17
1904	Barium removal from synthetic natural and produced water using MXene as two dimensional (2-D) nanosheet adsorbent. <b>2017</b> , 317, 331-342	136
1903	Atomic layer deposition of SnO <sub>2</sub> on MXene for Li-ion battery anodes. <b>2017</b> , 34, 249-256	307
1902	Dispersions of Two-Dimensional Titanium Carbide MXene in Organic Solvents. <b>2017</b> , 29, 1632-1640	421

1901	Synthesis of Nanoflower-Shaped MXene Derivative with Unexpected Catalytic Activity for Dehydrogenation of Sodium Alanates. <b>2017</b> , 9, 7611-7618	49
1900	Ti3BN monolayer: the MXene-like material predicted by first-principles calculations. <b>2017</b> , 7, 11834-11839	5
1899	Superconductivity of monolayer MoC: The key role of functional groups. <b>2017</b> , 146, 034705	44
1898	Topology-Scaling Identification of Layered Solids and Stable Exfoliated 2D Materials. <b>2017</b> , 118, 106101	193
1897	Two-Dimensional MXene with Controlled Interlayer Spacing for Electrochemical Energy Storage. <b>2017</b> , 11, 2393-2396	123
1896	Interfacial Defect Engineering on Electronic States of Two-Dimensional AlN/MoS2 Heterostructure. <b>2017</b> , 121, 6605-6613	27
1895	Corrosion behavior of TiC/BiC composite ceramics in molten FLiNaK salt. <b>2017</b> , 37, 2575-2582	14
1894	Controlling the conductivity of Ti3C2 MXenes by inductively coupled oxygen and hydrogen plasma treatment and humidity. <b>2017</b> , 7, 13097-13103	65
1893	Binder-free Ti3C2Tx MXene electrode film for supercapacitor produced by electrophoretic deposition method. <b>2017</b> , 317, 1026-1036	141
1892	Interaction of Polar and Nonpolar Polyfluorenes with Layers of Two-Dimensional Titanium Carbide (MXene): Intercalation and Pseudocapacitance. <b>2017</b> , 29, 2731-2738	128
1891	Rendering Ti3C2Tx (MXene) monolayers visible. <b>2017</b> , 5, 322-328	26
1890	Preparation of High-Purity V2C MXene and Electrochemical Properties as Li-Ion Batteries. <b>2017</b> , 164, A709-A713	169
1889	Hydrogen weakens interlayer bonding in layered transition metal sulfide Fe1+xS. <b>2017</b> , 5, 5030-5035	8
1888	Photoluminescent TiC MXene Quantum Dots for Multicolor Cellular Imaging. <i>Advanced Materials</i> , <b>2017</b> , 29, 1604847	24 439
1887	Structures and Mechanical and Electronic Properties of the Ti2CO2 MXene Incorporated with Neighboring Elements (Sc, V, B and N). <b>2017</b> , 46, 2460-2466	42
1886	Synthesis of Nitrogen-Doped Two-Dimensional Ti3C2 with Enhanced Electrochemical Performance. <b>2017</b> , 164, A923-A929	48
1885	Controllable magnitude and anisotropy of the electrical conductivity of HfCO MXene. <b>2017</b> , 29, 165701	22
1884	Achieving High Pseudocapacitance of 2D Titanium Carbide (MXene) by Cation Intercalation and Surface Modification. <b>2017</b> , 7, 1602725	360

1883	Predicting stable phase monolayer Mo <sub>2</sub> C (MXene), a superconductor with chemically-tunable critical temperature. <b>2017</b> , 5, 3438-3444	60
1882	Fabrication and thermal stability of NH <sub>4</sub> HF <sub>2</sub> -etched Ti <sub>3</sub> C <sub>2</sub> MXene. <b>2017</b> , 43, 6322-6328	116
1881	High volumetric energy density annealed-MXene-nickel oxide/MXene asymmetric supercapacitor. <b>2017</b> , 7, 11000-11011	99
1880	Tunable band gap and optical properties of surface functionalized Sc <sub>2</sub> C monolayer. <b>2017</b> , 26, 017806	8
1879	Electronic properties and applications of MXenes: a theoretical review. <b>2017</b> , 5, 2488-2503	498
1878	Charge transfer induced polymerization of EDOT confined between 2D titanium carbide layers. <b>2017</b> , 5, 5260-5265	107
1877	Enhanced thermal properties of poly(vinylidene fluoride) composites with ultrathin nanosheets of MXene. <b>2017</b> , 7, 20494-20501	131
1876	Two-Dimensional Topological Insulators: Progress and Prospects. <b>2017</b> , 8, 1905-1919	110
1875	Selective Calixarene-Directed Synthesis of MXene Plates, Crumpled Sheets, Spheres, and Scrolls. <b>2017</b> , 23, 8128-8133	24
1874	Two-dimensional scandium-based carbides (MXene): Band gap modulation and optical properties. <b>2017</b> , 712, 752-759	41
1873	Stabilizing the MXenes by Carbon Nanoplatting for Developing Hierarchical Nanohybrids with Efficient Lithium Storage and Hydrogen Evolution Capability. <i>Advanced Materials</i> , <b>2017</b> , 29, 1607017	24 380
1872	Mechanism on the Improved Performance of Lithium Sulfur Batteries with MXene-Based Additives. <b>2017</b> , 121, 11047-11054	84
1871	Fabrication of urchin-like ZnO-MXene nanocomposites for high-performance electromagnetic absorption. <b>2017</b> , 43, 10757-10762	110
1870	Freestanding Flexible Li <sub>2</sub> S Paper Electrode with High Mass and Capacity Loading for High-Energy Li <sub>2</sub> S Batteries. <b>2017</b> , 7, 1700018	122
1869	Facile preparation of in situ coated Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> /Ni <sub>0.5</sub> Zn <sub>0.5</sub> Fe <sub>2</sub> O <sub>4</sub> composites and their electromagnetic performance. <b>2017</b> , 7, 24698-24708	108
1868	Preparation of Ti <sub>3</sub> C <sub>2</sub> and Ti <sub>2</sub> C MXenes by fluoride salts etching and methane adsorptive properties. <b>2017</b> , 416, 781-789	213
1867	Two-dimensional MXenes for energy storage and conversion applications. <b>2017</b> , 5, 22-36	75
1866	The origin of low workfunctions in OH terminated MXenes. <b>2017</b> , 9, 7016-7020	35



1865	Strain engineering of electronic structures and photocatalytic responses of MXenes functionalized by oxygen. <b>2017</b> , 19, 14738-14744	40
1864	Materials Chemistry of Inorganic Nanosheets Overview and History. <b>2017</b> , 3-31	
1863	Preparation and mechanical properties of TiC <sub>x</sub> -Ni <sub>3</sub> (Al,Ti)/Ni composites synthesized from Ni alloy and Ti <sub>3</sub> AlC <sub>2</sub> powders. <b>2017</b> , 697, 48-54	29
1862	Synthesis of TiAuC, TiAuC and TiIrC by noble metal substitution reaction in TiSiC for high-temperature-stable Ohmic contacts to SiC. <b>2017</b> , 16, 814-818	99
1861	TiC MXene-Derived Sodium/Potassium Titanate Nanoribbons for High-Performance Sodium/Potassium Ion Batteries with Enhanced Capacities. <b>2017</b> , 11, 4792-4800	412
1860	Raman spectroscopy of two-dimensional material under high pressure: Black phosphorus ultrathin film, phosphorene. <b>2017</b> , 56, 05FB06	11
1859	Molybdenum Carbide-Based Electrocatalysts for Hydrogen Evolution Reaction. <b>2017</b> , 23, 10947-10961	211
1858	Two-dimensional MoC MXene with divacancy ordering prepared from parent 3D laminate with in-plane chemical ordering. <b>2017</b> , 8, 14949	334
1857	Chemical bonding and electronic-structure in MAX phases as viewed by X-ray spectroscopy and density functional theory. <b>2017</b> , 621, 108-130	100
1856	2D MXenes: A New Family of Promising Catalysts for the Hydrogen Evolution Reaction. <b>2017</b> , 7, 494-500	548
1855	Template-free 3D titanium carbide (TiCT) MXene particles crumpled by capillary forces. <b>2016</b> , 53, 400-403	195
1854	High intrinsic catalytic activity of two-dimensional boron monolayers for the hydrogen evolution reaction. <b>2017</b> , 9, 533-537	81
1853	Electrically Transduced Sensors Based on Nanomaterials (2012-2016). <b>2017</b> , 89, 249-275	54
1852	Structural, mechanical, dynamical and electronic properties and high-pressure behavior of Mo <sub>2</sub> GeC: A first-principles study. <b>2017</b> , 137, 306-313	5
1851	Magnetotransport in the MAX phases and their 2D derivatives: MXenes. <b>2017</b> , 5, 365-378	37
1850	Elastic and thermodynamic properties of new (Zr <sub>3</sub> □Ti <sub>x</sub> )AlC <sub>2</sub> MAX-phase solid solutions. <b>2017</b> , 137, 318-326	87
1849	Interdiffusion Reaction-Assisted Hybridization of Two-Dimensional Metal-Organic Frameworks and TiCT Nanosheets for Electrocatalytic Oxygen Evolution. <b>2017</b> , 11, 5800-5807	388
1848	Sb <sub>2</sub> O <sub>3</sub> /MXene(Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> ) hybrid anode materials with enhanced performance for sodium-ion batteries. <b>2017</b> , 5, 12445-12452	190

1847	Achieving high-rate capacitance of multi-layer titanium carbide (MXene) by liquid-phase exfoliation through Li-intercalation. <b>2017</b> , 81, 48-51	27
1846	Possibility of bare and functionalized niobium carbide MXenes for electrode materials of supercapacitors and field emitters. <b>2017</b> , 130, 512-520	66
1845	Ti <sub>2</sub> CO <sub>2</sub> MXene: a highly active and selective photocatalyst for CO <sub>2</sub> reduction. <b>2017</b> , 5, 12899-12903	148
1844	Prediction of T- and H-Phase Two-Dimensional Transition-Metal Carbides/Nitrides and Their Semiconducting-Metallic Phase Transition. <b>2017</b> , 18, 1897-1902	22
1843	Metal Immiscibility Route to Synthesis of Ultrathin Carbides, Borides, and Nitrides. <i>Advanced Materials</i> , <b>2017</b> , 29, 1700364	24 38
1842	In vitro studies on cytotoxicity of delaminated TiC MXene. <b>2017</b> , 339, 1-8	120
1841	Nitrogen-doped Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene electrodes for high-performance supercapacitors. <b>2017</b> , 38, 368-376	348
1840	One-step hydrothermal synthesis of a TiO <sub>2</sub> -Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> nanocomposite with small sized TiO <sub>2</sub> nanoparticles. <b>2017</b> , 43, 11065-11070	58
1839	Laminated and Two-Dimensional Carbon-Supported Microwave Absorbers Derived from MXenes. <b>2017</b> , 9, 20038-20045	229
1838	Nitrogen-doped graphene and titanium carbide nanosheet synergistically reinforced epoxy composites as high-performance microwave absorbers. <b>2017</b> , 7, 27755-27761	60
1837	Preparation and characterization of polymer-Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXene) composite nanofibers produced via electrospinning. <b>2017</b> , 134, 45295	78
1836	Recent advances of supercapacitors based on two-dimensional materials. <b>2017</b> , 8, 104-115	97
1835	Tunable Magnetism and Transport Properties in Nitride MXenes. <b>2017</b> , 11, 7648-7655	190
1834	Electrochemical performance of MXenes as K-ion battery anodes. <b>2017</b> , 53, 6883-6886	106
1833	Hierarchical porous carbons with layer-by-layer motif architectures from confined soft-template self-assembly in layered materials. <b>2017</b> , 8, 15717	231
1832	Two-Dimensional MXenes as Catalysts for Electrochemical Hydrogen Evolution: A Computational Screening Study. <b>2017</b> , 121, 13593-13598	115
1831	Conversion of MAX phase single crystals in highly porous carbides by high temperature chlorination. <b>2017</b> , 43, 8246-8254	5
1830	Environmental Friendly Scalable Production of Colloidal 2D Titanium Carbonitride MXene with Minimized Nanosheets Restacking for Excellent Cycle Life Lithium-Ion Batteries. <b>2017</b> , 235, 690-699	129

1829	Fe 2 C monolayer: An intrinsic ferromagnetic MXene. <b>2017</b> , 434, 164-168	39
1828	Enhanced Photocatalytic Water Splitting in a C N Monolayer by C-Site Isoelectronic Substitution. <b>2017</b> , 18, 1526-1532	38
1827	MXene TiC: An Effective 2D Light-to-Heat Conversion Material. <b>2017</b> , 11, 3752-3759	752
1826	Ferroelectricity, Antiferroelectricity, and Ultrathin 2D Electron/Hole Gas in Multifunctional Monolayer MXene. <b>2017</b> , 17, 3290-3296	102
1825	Synthesis and Electrochemical Properties of Two-Dimensional Hafnium Carbide. <b>2017</b> , 11, 3841-3850	229
1824	Functional group-dependent anchoring effect of titanium carbide-based MXenes for lithium-sulfur batteries: A computational study. <b>2017</b> , 412, 591-598	98
1823	Ti3C2 MXenes modified with in situ grown carbon nanotubes for enhanced electromagnetic wave absorption properties. <b>2017</b> , 5, 4068-4074	224
1822	High-temperature synthesis of a cast material with a maximum content of the MAX phase Cr2AlC. <b>2017</b> , 53, 271-277	21
1821	Titanium carbide (Ti3C2Tx) MXene: A novel precursor to amphiphilic carbide-derived graphene quantum dots for fluorescent ink, light-emitting composite and bioimaging. <b>2017</b> , 118, 50-57	111
1820	Electrochemical performance of TiCT MXene in aqueous media: towards ultrasensitive H2O2 sensing. <b>2017</b> , 235, 471-479	151
1819	Structural formation and charge storage mechanisms for intercalated two-dimensional carbides MXenes. <b>2017</b> , 19, 9509-9518	15
1818	MoS2-Nanosheet-Decorated 2D Titanium Carbide (MXene) as High-Performance Anodes for Sodium-Ion Batteries. <b>2017</b> , 4, 1560-1565	92
1817	Transparent, conductive solution processed spincoated 2D Ti2CTx (MXene) films. <b>2017</b> , 5, 391-398	96
1816	First principles prediction of two-dimensional tungsten carbide (W2C) monolayer and its Li storage capability. <b>2017</b> , 10, 35-38	10
1815	Freestanding atomically-thin two-dimensional materials beyond graphene meeting photocatalysis: Opportunities and challenges. <b>2017</b> , 35, 79-91	142
1814	Recent Advances in Ultrathin Two-Dimensional Nanomaterials. <b>2017</b> , 117, 6225-6331	2919
1813	Two-dimensional layered compound based anode materials for lithium-ion batteries and sodium-ion batteries. <b>2017</b> , 499, 17-32	59
1812	Chelation assisted exfoliation of layered borides towards synthesizing boron based nanosheets. <b>2017</b> , 7, 1905-1914	30

1811	Robust half-metallic ferromagnetism in Cr <sub>3</sub> C <sub>2</sub> MXene. <b>2017</b> , 433, 222-226	27
1810	Emerging topological states in quasi-two-dimensional materials. <b>2017</b> , 7, e1296	17
1809	Understanding the anchoring behavior of titanium carbide-based MXenes depending on the functional group in LiS batteries: A density functional theory study. <b>2017</b> , 342, 64-69	106
1808	Two-Dimensional Ultrathin MXene Ceramic Nanosheets for Photothermal Conversion. <b>2017</b> , 17, 384-391	623
1807	A solution-processed TiS <sub>2</sub> /organic hybrid superlattice film towards flexible thermoelectric devices. <b>2017</b> , 5, 564-570	104
1806	Improved capacitance of nitrogen-doped delaminated two-dimensional titanium carbide by urea-assisted synthesis. <b>2017</b> , 225, 416-424	91
1805	Few-layer arsenic trichalcogenides: Emerging two-dimensional semiconductors with tunable indirect-direct band-gaps. <b>2017</b> , 699, 554-560	23
1804	Ultrahigh energy storage and ultrafast ion diffusion in borophene-based anodes for rechargeable metal ion batteries. <b>2017</b> , 5, 2328-2338	95
1803	Pillared Structure Design of MXene with Ultralarge Interlayer Spacing for High-Performance Lithium-Ion Capacitors. <b>2017</b> , 11, 2459-2469	523
1802	Recent progress in layered transition metal carbides and/or nitrides (MXenes) and their composites: synthesis and applications. <b>2017</b> , 5, 3039-3068	460
1801	Hydrogen adsorption, dissociation and diffusion on two-dimensional Ti <sub>2</sub> C monolayer. <b>2017</b> , 42, 27214-27219	14
1800	A highly flexible and sensitive piezoresistive sensor based on MXene with greatly changed interlayer distances. <b>2017</b> , 8, 1207	378
1799	Dopamine-derived N-doped carbon decorated titanium carbide composite for enhanced supercapacitive performance. <b>2017</b> , 254, 308-319	52
1798	Performance evaluation of asymmetric supercapacitor based on Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> -paper. <b>2017</b> , 729, 1165-1171	15
1797	Recent advances in ternary two-dimensional materials: synthesis, properties and applications. <b>2017</b> , 5, 22855-22876	97
1796	Recent advance in MXenes: A promising 2D material for catalysis, sensor and chemical adsorption. <b>2017</b> , 352, 306-327	315
1795	Highly Conductive Transition Metal Carbide/Carbonitride(MXene)@polystyrene Nanocomposites Fabricated by Electrostatic Assembly for Highly Efficient Electromagnetic Interference Shielding. <b>2017</b> , 27, 1702807	407
1794	The facile synthesis of layered TiC MXene/carbon nanotube composite paper with enhanced electrochemical properties. <b>2017</b> , 46, 14880-14887	40

1793	Electronic, Magnetic, and Catalytic Properties of Thermodynamically Stable Two-Dimensional Transition-Metal Phosphides. <b>2017</b> , 29, 8892-8900	49
1792	Electrochemical etching of Ti <sub>2</sub> AlC to Ti <sub>2</sub> CT <sub>x</sub> (MXene) in low-concentration hydrochloric acid solution. <b>2017</b> , 5, 21663-21668	186
1791	A new etching environment (FeF <sub>3</sub> /HCl) for the synthesis of two-dimensional titanium carbide MXenes: a route towards selective reactivity vs. water. <b>2017</b> , 5, 22012-22023	115
1790	Multimodality of Structural, Electrical, and Gravimetric Responses of Intercalated MXenes to Water. <b>2017</b> , 11, 11118-11126	127
1789	Anab initiostudy on the investigation of structural, electronic, mechanical and lattice dynamical properties of theM2AXtypeMAXphases Sc <sub>2</sub> AlB <sub>0.5</sub> C <sub>0.5</sub> , Sc <sub>2</sub> AlB <sub>0.5</sub> N <sub>0.5</sub> and Sc <sub>2</sub> AlC <sub>0.5</sub> N <sub>0.5</sub> compounds. <b>2017</b> , 4, 106520	9
1788	Partial Etching of Al from MoAlB Single Crystals To Expose Catalytically Active Basal Planes for the Hydrogen Evolution Reaction. <b>2017</b> , 29, 8953-8957	63
1787	Rational control of the interlayer space inside two-dimensional titanium carbides for highly efficient uranium removal and imprisonment. <b>2017</b> , 53, 12084-12087	132
1786	Few-Layer MXenes Delaminated via High-Energy Mechanical Milling for Enhanced Sodium-Ion Batteries Performance. <b>2017</b> , 9, 39610-39617	90
1785	New two-dimensional transition metal borides for Li ion batteries and electrocatalysis. <b>2017</b> , 5, 23530-23535	132
1784	Acetylcholinesterase/chitosan-transition metal carbides nanocomposites-based biosensor for the organophosphate pesticides detection. <b>2017</b> , 128, 243-249	98
1783	Two-Dimensional Titanium Nitride (TiN) MXene: Synthesis, Characterization, and Potential Application as Surface-Enhanced Raman Scattering Substrate. <b>2017</b> , 11, 8892-8900	281
1782	Fluorine-free preparation of titanium carbide MXene quantum dots with high near-infrared photothermal performances for cancer therapy. <b>2017</b> , 9, 17859-17864	174
1781	A Two-Dimensional Biodegradable Niobium Carbide (MXene) for Photothermal Tumor Eradication in NIR-I and NIR-II Biowindows. <b>2017</b> , 139, 16235-16247	656
1780	Guidelines for Synthesis and Processing of Two-Dimensional Titanium Carbide (Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene). <b>2017</b> , 29, 7633-7644	1689
1779	One-Step Formation of 3D Alternating-Layer Structures Composed of Plates of Nanocrystalline Bismuth Oxide and Spherical Particles of Metallic Bismuth. <b>2017</b> , 52, 1700099	1
1778	All-Solid-State Flexible Fiber-Based MXene Supercapacitors. <b>2017</b> , 2, 1700143	103
1777	Ultrathin B <sub>4</sub> C nanosheets prepared by gradual oxygen etching for hydrogen evolution reaction. <b>2017</b> , 4, 095004	1
1776	Prediction and synthesis of a family of atomic laminate phases with Kagomelike and in-plane chemical ordering. <b>2017</b> , 3, e1700642	104

1775	Sulfonated Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> to construct proton transfer pathways in polymer electrolyte membrane for enhanced conduction. <b>2017</b> , 310, 100-111	19
1774	Biocompatible 2D Titanium Carbide (MXenes) Composite Nanosheets for pH-Responsive MRI-Guided Tumor Hyperthermia. <b>2017</b> , 29, 8637-8652	193
1773	Computational Study of Low Interlayer Friction in TiC (n = 1, 2, and 3) MXene. <b>2017</b> , 9, 34467-34479	62
1772	Understanding of Electrochemical Mechanisms for CO Capture and Conversion into Hydrocarbon Fuels in Transition-Metal Carbides (MXenes). <b>2017</b> , 11, 10825-10833	236
1771	Mn <sub>3</sub> O <sub>4</sub> nanoparticles on layer-structured Ti <sub>3</sub> C <sub>2</sub> MXene towards the oxygen reduction reaction and zinc-air batteries. <b>2017</b> , 5, 20818-20823	166
1770	New Ti <sub>3</sub> C <sub>2</sub> aerogel as promising negative electrode materials for asymmetric supercapacitors. <b>2017</b> , 364, 234-241	136
1769	Diffusion in energy materials: Governing dynamics from atomistic modelling. <b>2017</b> , 4, 031305	15
1768	MoS <sub>2</sub> -Decorated Ti <sub>3</sub> C <sub>2</sub> MXene Nanosheet as Anode Material in Lithium-Ion Batteries. <b>2017</b> , 164, A2654-A2659	52
1767	Phosphorene for energy and catalytic application filling the gap between graphene and 2D metal chalcogenides. <b>2017</b> , 4, 042006	38
1766	Alkaline intercalation of Ti <sub>3</sub> C <sub>2</sub> MXene for simultaneous electrochemical detection of Cd(II), Pb(II), Cu(II) and Hg(II). <b>2017</b> , 248, 46-57	163
1765	Revitalizing carbon supercapacitor electrodes with hierarchical porous structures. <b>2017</b> , 5, 17705-17733	332
1764	Tunable Magnetism and Extraordinary Sunlight Absorbance in Indium Triphosphide Monolayer. <b>2017</b> , 139, 11125-11131	187
1763	Flexible Ti <sub>3</sub> C <sub>2</sub> MXene-lithium film with lamellar structure for ultrastable metallic lithium anodes. <b>2017</b> , 39, 654-661	132
1762	Electrophoretic Deposition of Two-Dimensional Titanium Carbide (MXene) Thick Films. <b>2017</b> , 164, D573-D580	43
1761	Hollow MXene Spheres and 3D Macroporous MXene Frameworks for Na-Ion Storage. <i>Advanced Materials</i> , <b>2017</b> , 29, 1702410	24 465
1760	Flexible MXene-graphene electrodes with high volumetric capacitance for integrated co-cathode energy conversion/storage devices. <b>2017</b> , 5, 17442-17451	150
1759	Transparent, Flexible, and Conductive 2D Titanium Carbide (MXene) Films with High Volumetric Capacitance. <i>Advanced Materials</i> , <b>2017</b> , 29, 1702678	24 538
1758	Metallic MXene Saturable Absorber for Femtosecond Mode-Locked Lasers. <i>Advanced Materials</i> , <b>2017</b> , 29, 1702496	24 295

- 1757 Coloring and translucency mechanisms of Five dynasty celadon body from Yaozhou kiln. **2017**, 43, 11616-11628
- 1756 Computationally Driven Two-Dimensional Materials Design: What Is Next?. **2017**, 11, 7560-7564 32
- 1755 Theoretical insights into the uranyl adsorption behavior on vanadium carbide MXene. **2017**, 426, 572-578 57
- 1754 Microwave-assisted synthesis of SnO<sub>2</sub>-Ti<sub>3</sub>C<sub>2</sub> nanocomposite for enhanced supercapacitive performance. **2017**, 209, 122-125 32
- 1753 Ultrathin Bi Nanosheets with Superior Photoluminescence. **2017**, 13, 1701349 72
- 1752 Theoretical prediction of robust and intrinsic half-metallicity in Ni<sub>2</sub>N MXene with different types of surface terminations. **2017**, 426, 804-811 19
- 1751 Alkalized Ti<sub>3</sub>C<sub>2</sub> MXene nanoribbons with expanded interlayer spacing for high-capacity sodium and potassium ion batteries. **2017**, 40, 1-8 386
- 1750 Atomistic Origin of Phase Stability in Oxygen-Functionalized MXene: A Comparative Study. **2017**, 121, 18947-18953 34
- 1749 Highly Efficiently Delaminated Single-Layered MXene Nanosheets with Large Lateral Size. **2017**, 33, 9000-9006 70
- 1748 Chemical Origin of Termination-Functionalized MXenes: Ti<sub>3</sub>C<sub>2</sub>T<sub>2</sub> as a Case Study. **2017**, 121, 19254-19261 118
- 1747 Hydrophobic, Flexible, and Lightweight MXene Foams for High-Performance Electromagnetic-Interference Shielding. *Advanced Materials*, **2017**, 29, 1702367 24 903
- 1746 Cytocompatibility of TiAlC, TiSiC, and TiAlN: Tests and First-Principles Calculations. **2017**, 3, 2293-2301 40
- 1745 The {110} reflection in X-ray diffraction of MXene films: Misinterpretation and measurement via non-standard orientation. **2017**, 100, 5395-5399 34
- 1744 Atomic Defects and Edge Structure in Single-layer Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene. **2017**, 23, 1704-1705 6
- 1743 TiAuC and TiAuC formed by solid state reaction of gold with TiAlC and TiAlC. **2017**, 53, 9554-9557 35
- 1742 Low Cost Synthesis Method of Two-Dimensional Titanium Carbide MXene. **2017**, 209, 012001 7
- 1741 Molecularly Stacking Manganese Dioxide/Titanium Carbide Sheets to Produce Highly Flexible and Conductive Film Electrodes with Improved Pseudocapacitive Performances. **2017**, 7, 1602834 109
- 1740 Designing flexible 2D transition metal carbides with strain-controllable lithium storage. **2017**, 114, E11082-E11091 91

1739	Preparation of a new 2D MXene/PES composite membrane with excellent hydrophilicity and high flux. <b>2017</b> , 7, 56204-56210	67
1738	Computational methods for 2D materials: discovery, property characterization, and application design. <b>2017</b> , 29, 473001	39
1737	Electronic structure of Cr <sub>2</sub> AlC as observed by angle-resolved photoemission spectroscopy. <b>2017</b> , 96,	11
1736	Evidence for Symmetry Reduction in Ti(AlCu)C MAX Phase Solid Solutions. <b>2017</b> , 56, 14388-14395	13
1735	Theoretical exploration of the potential applications of Sc-based MXenes. <b>2017</b> , 19, 32253-32261	23
1734	Emergence of ferrimagnetic half-metallicity in two-dimensional MXene Mo <sub>3</sub> N <sub>2</sub> F <sub>2</sub> . <b>2017</b> , 111, 202405	18
1733	Two-Dimensional Tantalum Carbide (MXenes) Composite Nanosheets for Multiple Imaging-Guided Photothermal Tumor Ablation. <b>2017</b> , 11, 12696-12712	223
1732	Carbon vacancies in TiCT MXenes: defects or a new opportunity?. <b>2017</b> , 19, 31773-31780	57
1731	Functional Group Effects on the Photoelectronic Properties of MXene (ScCT, T = O, F, OH) and Their Possible Photocatalytic Activities. <b>2017</b> , 7, 15095	43
1730	Theoretical prediction of two-dimensional functionalized MXene nitrides as topological insulators. <b>2017</b> , 96,	50
1729	Latest advances in supercapacitors: from new electrode materials to novel device designs. <b>2017</b> , 46, 6816-6854	1120
1728	MXene: a potential candidate for yarn supercapacitors. <b>2017</b> , 9, 18604-18608	81
1727	In situ growth of carbon nanotubes on two-dimensional titanium carbide for enhanced electrochemical performance. <b>2017</b> , 258, 291-301	28
1726	Tension-Tailored Electronic and Magnetic Switching of 2D Ti <sub>2</sub> NO <sub>2</sub> . <b>2017</b> , 121, 25729-25735	24
1725	Versatile Cutting Method for Producing Fluorescent Ultrasmall MXene Sheets. <b>2017</b> , 11, 11559-11565	90
1724	2D molybdenum and vanadium nitrides synthesized by ammoniation of 2D transition metal carbides (MXenes). <b>2017</b> , 9, 17722-17730	192
1723	MXene: an emerging two-dimensional material for future energy conversion and storage applications. <b>2017</b> , 5, 24564-24579	291
1722	Selective Molecular Separation on TiCT-Graphene Oxide Membranes during Pressure-Driven Filtration: Comparison with Graphene Oxide and MXenes. <b>2017</b> , 9, 44687-44694	116



1721	Surface Modified TiC MXene Nanosheets for Tumor Targeting Photothermal/Photodynamic/Chemo Synergistic Therapy. <b>2017</b> , 9, 40077-40086	329
1720	Electromagnetic interference shielding effectiveness of titanium carbide sheets. <b>2017</b> , 205, 261-263	45
1719	Atomistic simulation of two-dimensional titanium carbide Ti <sub>2</sub> C fracture under uniform tensile strain. <b>2017</b> ,	1
1718	Synergistic effect of 2D Ti <sub>2</sub> C and g-C <sub>3</sub> N <sub>4</sub> for efficient photocatalytic hydrogen production. <b>2017</b> , 5, 16748-16756	1
1717	An easily manipulated protocol for patterning of MXenes on paper for planar micro-supercapacitors. <b>2017</b> , 5, 19639-19648	92
1716	Thermoelectric Properties of Two-Dimensional Molybdenum-Based MXenes. <b>2017</b> , 29, 6472-6479	163
1715	Synthesis and properties of 2D-titanium carbide MXene sheets towards electrochemical energy storage applications. <b>2017</b> , 43, 13119-13126	47
1714	Calorimetric Study of Alkali Metal Ion (K <sup>+</sup> , Na <sup>+</sup> , Li <sup>+</sup> ) Exchange in a Clay-Like MXene. <b>2017</b> , 121, 15145-15153	26
1713	Flexible MXene/Graphene Films for Ultrafast Supercapacitors with Outstanding Volumetric Capacitance. <b>2017</b> , 27, 1701264	934
1712	Manipulating the mechanical properties of Ti <sub>2</sub> C MXene: Effect of substitutional doping. <b>2017</b> , 95,	50
1711	Flexible All-Solid-State Supercapacitors with High Volumetric Capacitances Boosted by Solution Processable MXene and Electrochemically Exfoliated Graphene. <b>2017</b> , 7, 1601847	298
1710	Scalable exfoliation and dispersion of two-dimensional materials - an update. <b>2017</b> , 19, 921-960	214
1709	Pseudocapacitive materials for electrochemical capacitors: from rational synthesis to capacitance optimization. <b>2017</b> , 4, 71-90	138
1708	Synthesis of two-dimensional Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene using HCl+LiF etchant: Enhanced exfoliation and delamination. <b>2017</b> , 695, 818-826	164
1707	Two-dimensional MXene Ti <sub>3</sub> C <sub>2</sub> produced by exfoliation of Ti <sub>3</sub> AlC <sub>2</sub> . <b>2017</b> , 114, 161-166	186
1706	Synthesis and characterization of a new (Ti <sub>1-x</sub> Cu <sub>x</sub> ) <sub>3</sub> (Al,Cu)C <sub>2</sub> MAX phase solid solution. <b>2017</b> , 37, 459-466	27
1705	Room Temperature Oxidation of Ti <sub>3</sub> C <sub>2</sub> MXene for Supercapacitor Electrodes. <b>2017</b> , 164, A3933-A3942	85
1704	Stacking stability and sliding mechanism in weakly bonded 2D transition metal carbides by van der Waals force. <b>2017</b> , 7, 55912-55919	29

1703	Structural and Electronic Properties of $\text{ConC}_3\text{O}$ and $\text{ConC}_4\text{O}$ ( $n=14$ ) Clusters: Mass-Selected Anion Photoelectron Spectroscopy and Density Functional Theory Calculations <b>2017</b> , 30, 717-726	4
1702	Noncovalent Interactions in Nanotechnology. <b>2017</b> , 417-451	5
1701	Inorganic analogues of graphene. <b>2017</b> , 75-101	2
1700	First-Principles Calculations of $\text{Ti}_2\text{N}$ and $\text{Ti}_2\text{NT}_2$ ( $T = \text{O}, \text{F}, \text{OH}$ ) Monolayers as Potential Anode Materials for Lithium-Ion Batteries and Beyond. <b>2017</b> , 121, 13025-13034	99
1699	A polyoxometalate-functionalized two-dimensional titanium carbide composite MXene for effective cancer theranostics. <b>2018</b> , 11, 4149-4168	75
1698	Rheological Characteristics of 2D Titanium Carbide (MXene) Dispersions: A Guide for Processing MXenes. <b>2018</b> , 12, 2685-2694	155
1697	Bulk and surface properties of metal carbides: implications for catalysis. <b>2018</b> , 20, 6905-6916	53
1696	Synergistically enhanced lithium storage performance based on titanium carbide nanosheets (MXene) backbone and $\text{SnO}_2$ quantum dots. <b>2018</b> , 268, 503-511	54
1695	First demonstration of possible two-dimensional MBene $\text{CrB}$ derived from MAB phase $\text{Cr}_2\text{AlB}_2$ . <b>2018</b> , 34, 2022-2026	62
1694	Probing the impact of magnetic interactions on the lattice dynamics of two-dimensional $\text{TiX}$ ( $X = \text{C}, \text{N}$ ) MXenes. <b>2018</b> , 20, 7754-7763	19
1693	Highly stable $\text{Ti}_3\text{C}_2\text{Tx}$ (MXene)/Pt nanoparticles-modified glassy carbon electrode for $\text{H}_2\text{O}_2$ and small molecules sensing applications. <b>2018</b> , 263, 360-368	118
1692	MXene as a Charge Storage Host. <b>2018</b> , 51, 591-599	203
1691	Mechanistic Quantification of Thermodynamic Stability and Mechanical Strength for Two-Dimensional Transition-Metal Carbides. <b>2018</b> , 122, 4710-4722	22
1690	Effect of glycine functionalization of 2D titanium carbide (MXene) on charge storage. <b>2018</b> , 6, 4617-4622	74
1689	Conceptually Novel Black Phosphorus/Cellulose Hydrogels as Promising Photothermal Agents for Effective Cancer Therapy. <b>2018</b> , 7, e1701510	139
1688	High-Thermal-Stability and High-Thermal-Conductivity $\text{TiCT}$ MXene/Poly(vinyl alcohol) (PVA) Composites. <b>2018</b> , 3, 2609-2617	152
1687	Selective Etching of Silicon from $\text{Ti SiC}$ (MAX) To Obtain 2D Titanium Carbide (MXene). <b>2018</b> , 57, 5444-5448	185
1686	Chemical Exfoliation of Layered Magnesium Diboride To Yield Functionalized Nanosheets and Nanoaccordions for Potential Flame Retardant Applications. <b>2018</b> , 1, 1612-1622	14

1685	Ecotoxicological assessment of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXene) using a zebrafish embryo model. <b>2018</b> , 5, 1002-1011	67
1684	Oxide Thin-Film Electronics using All-MXene Electrical Contacts. <i>Advanced Materials</i> , <b>2018</b> , 30, e170665624	113
1683	Novel elastic, lattice dynamics and thermodynamic properties of metallic single-layer transition metal phosphides: 2H-M P (MoP, WP, NbP and TaP). <b>2018</b> , 30, 135701	4
1682	Rational Design of Nanostructured Functional Interlayer/Separator for Advanced Li <sup>+</sup> Batteries. <b>2018</b> , 28, 1707411	196
1681	Mesoporous MXene powders synthesized by acid induced crumpling and their use as Na-ion battery anodes. <b>2018</b> , 6, 230-235	85
1680	Advanced analytical techniques to characterize materials for electrochemical capacitors. <b>2018</b> , 9, 18-25	16
1679	Insights into exfoliation possibility of MAX phases to MXenes. <b>2018</b> , 20, 8579-8592	108
1678	High-Voltage Symmetric Supercapacitor Based on 2D Titanium Carbide (MXene, Ti <sub>2</sub> CT <sub>x</sub> )/Carbon Nanosphere Composites in a Neutral Aqueous Electrolyte. <b>2018</b> , 165, A501-A511	62
1677	Boosting the Photocatalytic Activity of P25 for Carbon Dioxide Reduction by using a Surface-Alkalinized Titanium Carbide MXene as Cocatalyst. <b>2018</b> , 11, 1606-1611	142
1676	Fabrication and microstructure of a new ternary solid solution of Ti <sub>3</sub> Al <sub>0.8</sub> Si <sub>0.2</sub> Sn <sub>0.2</sub> C <sub>2</sub> with high solid solution strengthening effect. <b>2018</b> , 44, 9593-9600	11
1675	g-C <sub>3</sub> N <sub>4</sub> /Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXenes) composite with oxidized surface groups for efficient photocatalytic hydrogen evolution. <b>2018</b> , 6, 9124-9131	162
1674	2D magnetic titanium carbide MXene for cancer theranostics. <b>2018</b> , 6, 3541-3548	63
1673	MXene <sup>2D</sup> layered electrode materials for energy storage. <b>2018</b> , 28, 133-147	127
1672	Ohmic contacts between monolayer WSe <sub>2</sub> and two-dimensional titanium carbides. <b>2018</b> , 135, 125-133	34
1671	TiC Monolayer with High Specific Capacity for Sodium-Ion Batteries. <b>2018</b> , 140, 5962-5968	152
1670	Bipolar magnetic semiconductors among intermediate states during the conversion from ScC(OH) to ScCO MXene. <b>2018</b> , 10, 8763-8771	18
1669	Sandwich-like Co <sub>3</sub> O <sub>4</sub> /MXene composite with enhanced catalytic performance for Bisphenol A degradation. <b>2018</b> , 347, 731-740	128
1668	Fluorine-Free Synthesis of High-Purity Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (T=OH, O) via Alkali Treatment. <b>2018</b> , 130, 6223-6227	29

1667	Two-dimensional transition metal carbides and nitrides (MXenes) for biomedical applications. <b>2018</b> , 47, 5109-5124	450
1666	Functional inks and printing of two-dimensional materials. <b>2018</b> , 47, 3265-3300	268
1665	Tailoring Structure, Composition, and Energy Storage Properties of MXenes from Selective Etching of In-Plane, Chemically Ordered MAX Phases. <b>2018</b> , 14, e1703676	99
1664	Large Dielectric Constant Enhancement in MXene Percolative Polymer Composites. <b>2018</b> , 12, 3369-3377	181
1663	The influence of surface functionalization on thermal transport and thermoelectric properties of MXene monolayers. <b>2018</b> , 10, 8859-8868	72
1662	Fundamental limitation of electrocatalytic methane conversion to methanol. <b>2018</b> , 20, 11152-11159	47
1661	2D/2D Heterojunction of Ultrathin MXene/Bi <sub>2</sub> WO <sub>6</sub> Nanosheets for Improved Photocatalytic CO <sub>2</sub> Reduction. <b>2018</b> , 28, 1800136	757
1660	Formation of quasi-core-shell In <sub>2</sub> S <sub>3</sub> /anatase TiO <sub>2</sub> @metallic Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> hybrids with favorable charge transfer channels for excellent visible-light-photocatalytic performance. <b>2018</b> , 233, 213-225	211
1659	W-Based Atomic Laminates and Their 2D Derivative W C MXene with Vacancy Ordering. <i>Advanced Materials</i> , <b>2018</b> , 30, e1706409	24 145
1658	Fluorine-Free Synthesis of High-Purity Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (T=OH, O) via Alkali Treatment. <b>2018</b> , 57, 6115-6119	387
1657	A novel plane-line-plane nanostructure of the sandwich-like CNTs@SnO <sub>2</sub> /Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> 3D nanocomposite as a promising anode for lithium-ion batteries. <b>2018</b> , 44, 11757-11764	7
1656	Novel Scale-Like Structures of Graphite/TiC/Ti <sub>3</sub> C <sub>2</sub> Hybrids for Electromagnetic Absorption. <b>2018</b> , 4, 1700617	61
1655	Highly Self-Healable 3D Microsupercapacitor with MXene-Graphene Composite Aerogel. <b>2018</b> , 12, 4224-4232	375
1654	Alkali-induced crumpling of TiCT (MXene) to form 3D porous networks for sodium ion storage. <b>2018</b> , 54, 4533-4536	101
1653	Phonon dispersion curves in Cr <sub>2</sub> AlC single-crystals. <b>2018</b> , 6, 378-383	10
1652	Effects of etching temperature and ball milling on the preparation and capacitance of Ti <sub>3</sub> C <sub>2</sub> MXene. <b>2018</b> , 752, 32-39	37
1651	Electronic and transport properties for Ti <sub>3</sub> C <sub>2</sub> O <sub>2</sub> under the influence of a vertical electric field and stacking number. <b>2018</b> , 147, 186-193	3
1650	Role of the H-containing groups on the structural dynamics of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene. <b>2018</b> , 537, 155-161	12

1649	Binder-free 2D titanium carbide (MXene)/carbon nanotube composites for high-performance lithium-ion capacitors. <b>2018</b> , 10, 5906-5913	153
1648	Materials for supercapacitors: When Li-ion battery power is not enough. <b>2018</b> , 21, 419-436	234
1647	Experimental and theoretical calculation investigation on efficient Pb(II) adsorption on etched Ti <sub>3</sub> AlC <sub>2</sub> nanofibers and nanosheets. <b>2018</b> , 5, 946-955	90
1646	Silver nanoparticles modified two-dimensional transition metal carbides as nanocarriers to fabricate acetylcholinesterase-based electrochemical biosensor. <b>2018</b> , 339, 547-556	100
1645	MBene (MnB): a new type of 2D metallic ferromagnet with high Curie temperature. <b>2018</b> , 3, 335-341	99
1644	Emergent Pseudocapacitance of 2D Nanomaterials. <b>2018</b> , 8, 1702930	172
1643	Ultrasonic assisted etching and delaminating of Ti <sub>3</sub> C <sub>2</sub> Mxene. <b>2018</b> , 44, 7084-7087	21
1642	Recent Advances in Layered Ti C T MXene for Electrochemical Energy Storage. <b>2018</b> , 14, e1703419	478
1641	Sandwich-like Na <sub>0.23</sub> TiO <sub>2</sub> nanobelt/Ti <sub>3</sub> C <sub>2</sub> MXene composites from a scalable in situ transformation reaction for long-life high-rate lithium/sodium-ion batteries. <b>2018</b> , 46, 20-28	109
1640	Towards flexible solid-state supercapacitors for smart and wearable electronics. <b>2018</b> , 47, 2065-2129	936
1639	2D Ultrathin MXene-Based Drug-Delivery Nanoplatform for Synergistic Photothermal Ablation and Chemotherapy of Cancer. <b>2018</b> , 7, e1701394	181
1638	Synthesis of MoAlB Particulates and Their Porous Derivatives by Selective Deintercalation of Al from MoAlB. <b>2018</b> , 535-541	1
1637	Improving the electrochemical properties of MXene Ti <sub>3</sub> C <sub>2</sub> multilayer for Li-ion batteries by vacuum calcination. <b>2018</b> , 265, 140-150	69
1636	Synthesis of molybdenum nitrides nanosheets by nitriding 2H-MoS <sub>2</sub> with ammonia. <b>2018</b> , 101, 2796-2808	18
1635	Low-temperature synthesized nanocomposites with amorphous FeOOH on Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> for supercapacitors. <b>2018</b> , 744, 507-515	20
1634	Two-dimensional titanium carbide (MXene)-based solid-state electrochemiluminescent sensor for label-free single-nucleotide mismatch discrimination in human urine. <b>2018</b> , 263, 400-407	68
1633	High-throughput theoretical optimization of the hydrogen evolution reaction on MXenes by transition metal modification. <b>2018</b> , 6, 4271-4278	140
1632	Facile synthesis and electrochemical performance of TiO <sub>2</sub> nanowires/Ti <sub>3</sub> C <sub>2</sub> composite. <b>2018</b> , 29, 4881-4887	11

1631	A Strategy for Synthesis of Carbon Nitride Induced Chemically Doped 2D MXene for High-Performance Supercapacitor Electrodes. <b>2018</b> , 8, 1703173	128
1630	First-Principle Study of Li-Ion Storage of Functionalized TiC Monolayer with Vacancies. <b>2018</b> , 10, 6369-6377	63
1629	Exploring Two-Dimensional Materials toward the Next-Generation Circuits: From Monomer Design to Assembly Control. <b>2018</b> , 118, 6236-6296	261
1628	Role of Interfaces in Two-Dimensional Photocatalyst for Water Splitting. <b>2018</b> , 8, 2253-2276	558
1627	Enhancement of the selectivity of MXenes (MC, M = Ti, V, Nb, Mo) via oxygen-functionalization: promising materials for gas-sensing and -separation. <b>2018</b> , 20, 6073-6082	51
1626	Atomically Intercalating Tin Ions into the Interlayer of Molybdenum Oxide Nanobelt toward Long-Cycling Lithium Battery. <b>2018</b> , 9, 817-824	26
1625	Two-Dimensional Molybdenum Carbide (MXene) with Divacancy Ordering for Brackish and Seawater Desalination via Cation and Anion Intercalation. <b>2018</b> , 6, 3739-3747	127
1624	Condition optimization for exfoliation of two dimensional titanium carbide (TiCT ). <b>2018</b> , 29, 095605	35
1623	In situ synthesis of CNTs@Ti3C2 hybrid structures by microwave irradiation for high-performance anodes in lithium ion batteries. <b>2018</b> , 6, 3543-3551	83
1622	The rapid emergence of two-dimensional nanomaterials for high-performance separation membranes. <b>2018</b> , 6, 3773-3792	159
1621	Fabrication of tunable hierarchical MXene@AuNPs nanocomposites constructed by self-reduction reactions with enhanced catalytic performances. <b>2018</b> , 61, 728-736	140
1620	Ultrahigh-flux and fouling-resistant membranes based on layered silver/MXene (Ti3C2Tx) nanosheets. <b>2018</b> , 6, 3522-3533	227
1619	Intriguing electronic structures and optical properties of two-dimensional van der Waals heterostructures of Zr2CT2 (T = O, F) with MoSe2 and WSe2. <b>2018</b> , 6, 2830-2839	43
1618	Electrochemical Reduction of TiO2/Al2O3/C to Ti3AlC2 and Its Derived Two-Dimensional (2D) Carbides. <b>2018</b> , 165, E97-E107	8
1617	Intercalation and delamination of two-dimensional MXene (Ti3C2Tx) and application in sodium-ion batteries. <b>2018</b> , 219, 45-50	51
1616	2D transition metal carbide MXene as a robust biosensing platform for enzyme immobilization and ultrasensitive detection of phenol. <b>2018</b> , 107, 69-75	153
1615	ZrSi: an antiferromagnetic Dirac MXene. <b>2018</b> , 20, 3946-3952	10
1614	Clay-Inspired MXene-Based Electrochemical Devices and Photo-Electrocatalyst: State-of-the-Art Progresses and Challenges. <i>Advanced Materials</i> , <b>2018</b> , 30, e1704561	24 301

1613	Recent Advances in Two-Dimensional Nanomaterials for Supercapacitor Electrode Applications. <b>2018</b> , 3, 482-495	413
1612	All Pseudocapacitive MXene-RuO <sub>2</sub> Asymmetric Supercapacitors. <b>2018</b> , 8, 1703043	459
1611	Readiness Level of Sodium-Ion Battery Technology: A Materials Review. <b>2018</b> , 2, 1700153	103
1610	Alkali treated Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXenes and their dye adsorption performance. <b>2018</b> , 206, 270-276	96
1609	Chemically functionalized two-dimensional titanium carbide MXene by in situ grafting-intercalating with diazonium ions to enhance supercapacitive performance. <b>2018</b> , 115, 172-179	47
1608	One-Step Synthesis of Nb O /C/Nb C (MXene) Composites and Their Use as Photocatalysts for Hydrogen Evolution. <b>2018</b> , 11, 688-699	223
1607	MoS <sub>2</sub> -on-MXene Heterostructures as Highly Reversible Anode Materials for Lithium-Ion Batteries. <b>2018</b> , 130, 1864-1868	56
1606	MoS -on-MXene Heterostructures as Highly Reversible Anode Materials for Lithium-Ion Batteries. <b>2018</b> , 57, 1846-1850	375
1605	Composites of Proteins and 2D Nanomaterials. <b>2018</b> , 28, 1704990	31
1604	Amorphous Ni-C nanoparticles with high electric conductivity and high specific capacitance for rechargeable charge storage. <b>2018</b> , 205, 494-501	7
1603	Tuning the Basal Plane Functionalization of Two-Dimensional Metal Carbides (MXenes) To Control Hydrogen Evolution Activity. <b>2018</b> , 1, 173-180	192
1602	Electrosynthesis of Ti <sub>3</sub> AlC <sub>2</sub> from oxides/carbon precursor in molten calcium chloride. <b>2018</b> , 735, 1901-1907	15
1601	MXene molecular sieving membranes for highly efficient gas separation. <b>2018</b> , 9, 155	530
1600	Single Pd atomic catalyst on MoCO monolayer (MXene): unusual activity for CO oxidation by trimolecular Eley-Rideal mechanism. <b>2018</b> , 20, 3504-3513	56
1599	Pressure-induced shear and interlayer expansion in TiC MXene in the presence of water. <b>2018</b> , 4, eaao6850	45
1598	TiC MXene: a promising microwave absorbing material.. <b>2018</b> , 8, 2398-2403	109
1597	A novel approach for electroanalytical determinations employing discharge of pseudocapacitor by electroactive species. <b>2018</b> , 1006, 1-9	4
1596	Construction of cost-effective bimetallic nanoparticles on titanium carbides as a superb catalyst for promoting hydrolysis of ammonia borane.. <b>2018</b> , 8, 843-847	19

1595	Stamping of Flexible, Coplanar Micro-Supercapacitors Using MXene Inks. <b>2018</b> , 28, 1705506	322
1594	A Scalable Synthesis Pathway to Nanoporous Metal Structures. <b>2018</b> , 12, 432-440	29
1593	A reliable and highly efficient exfoliation method for water-dispersible MoS nanosheet. <b>2018</b> , 514, 642-647	19
1592	3D assembly of TiC-MXene directed by water/oil interfaces. <b>2018</b> , 10, 3621-3625	60
1591	3D Porous MXene (TiC)/Reduced Graphene Oxide Hybrid Films for Advanced Lithium Storage. <b>2018</b> , 10, 3634-3643	185
1590	Epitaxial Synthesis of Molybdenum Carbide and Formation of a MoC/MoS Hybrid Structure via Chemical Conversion of Molybdenum Disulfide. <b>2018</b> , 12, 338-346	105
1589	Effects of point defects on the magnetoelectronic structures of MXenes from first principles. <b>2018</b> , 20, 4012-4019	48
1588	Facile synthesis of layered Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> -Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXene) composite for high-performance lithium ion battery. <b>2018</b> , 810, 27-33	32
1587	Fabrication of Cu O-based Materials for Lithium-Ion Batteries. <b>2018</b> , 11, 1581-1599	44
1586	Novel two-dimensional Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXenes/nano-carbon sphere hybrids for high-performance microwave absorption. <b>2018</b> , 6, 5690-5697	148
1585	Effect of heating rate on the purity of the ternary layered compound Ti <sub>3</sub> AlC <sub>2</sub> powder synthesized by a low-cost rapid method. <b>2018</b> , 29, 10942-10948	2
1584	Energy storage properties of selectively functionalized Cr-group MXenes. <b>2018</b> , 150, 236-243	8
1583	Layer-by-layer self-assembled two-dimensional MXene/layered double hydroxide composites as cathode for alkaline hybrid batteries. <b>2018</b> , 390, 208-214	37
1582	Self-Assembly of Transition Metal Oxide Nanostructures on MXene Nanosheets for Fast and Stable Lithium Storage. <i>Advanced Materials</i> , <b>2018</b> , 30, e1707334	24 324
1581	2D Titanium Carbide/Reduced Graphene Oxide Heterostructures for Supercapacitor Applications. <b>2018</b> , 1, 33-38	52
1580	Tunable pseudocapacitance storage of MXene by cation pillaring for high performance sodium-ion capacitors. <b>2018</b> , 6, 7794-7806	121
1579	Synthesis of MXene/DNA/Pd/Pt nanocomposite for sensitive detection of dopamine. <b>2018</b> , 816, 189-194	84
1578	3D Synergistical MXene/Reduced Graphene Oxide Aerogel for a Piezoresistive Sensor. <b>2018</b> , 12, 3209-3216	415



1577	Surface Functional Groups and Interlayer Water Determine the Electrochemical Capacitance of TiC T MXene. <b>2018</b> , 12, 3578-3586		259
1576	Toward Superior Capacitive Energy Storage: Recent Advances in Pore Engineering for Dense Electrodes. <i>Advanced Materials</i> , <b>2018</b> , 30, e1705713	24	141
1575	Heterostructures of MXenes and N-doped graphene as highly active bifunctional electrocatalysts. <b>2018</b> , 10, 10876-10883		154
1574	Electronic and vibrational properties of V2C-based MXenes: From experiments to first-principles modeling. <b>2018</b> , 97,		95
1573	Bismuth Oxychloride/MXene symmetric supercapacitor with high volumetric energy density. <b>2018</b> , 271, 351-360		85
1572	Effect of Ti3AlC2 precursor on the electrochemical properties of the resulting MXene Ti3C2 for Li-ion batteries. <b>2018</b> , 44, 11591-11596		36
1571	TiO2/MXene Ti3C2 composite with excellent photocatalytic CO2 reduction activity. <b>2018</b> , 361, 255-266		397
1570	Universal Descriptor for Large-Scale Screening of High-Performance MXene-Based Materials for Energy Storage and Conversion. <b>2018</b> , 30, 2687-2693		47
1569	MXene-Based Electrode with Enhanced Pseudocapacitance and Volumetric Capacity for Power-Type and Ultra-Long Life Lithium Storage. <b>2018</b> , 12, 3928-3937		120
1568	Fe3O4@Ti3C2 MXene hybrids with ultrahigh volumetric capacity as an anode material for lithium-ion batteries. <b>2018</b> , 6, 11189-11197		165
1567	Electrosynthesis of Two-Dimensional TiC and C Materials from Ti3SiC2 in Molten Salt. <b>2018</b> , 165, D190-D195		3
1566	Assembly of 2D MXene nanosheets and TiO2 nanoparticles for fabricating mesoporous TiO2-MXene membranes. <b>2018</b> , 564, 35-43		37
1565	Peaked dielectric responses in Ti3C2 MXene nanosheets enabled composites with efficient microwave absorption. <b>2018</b> , 123, 104103		61
1564	Superior electronic structure of two-dimensional 3d transition metal dicarbides for applications in spintronics. <b>2018</b> , 6, 4290-4299		15
1563	In-situ construction of hierarchical accordion-like TiO2/Ti3C2 nanohybrid as anode material for lithium and sodium ion batteries. <b>2018</b> , 271, 165-172		93
1562	A First-Principles Study on the Vibrational and Electronic Properties of Zr-C MXenes. <b>2018</b> , 69, 336		6
1561	Hydrothermal preparation of CoO/Ti3C2 composite material for lithium-ion batteries with enhanced electrochemical performance. <b>2018</b> , 817, 1-8		35
1560	Ultrathin MXene nanosheets with rich fluorine termination groups realizing efficient electrocatalytic hydrogen evolution. <b>2018</b> , 47, 512-518		152

1559	SiP monolayers: New 2D structures of group IVV compounds for visible-light photohydrolytic catalysts. <b>2018</b> , 13, 1	24
1558	Interfacial properties of black phosphorus/transition metal carbide van der Waals heterostructures. <b>2018</b> , 13, 1	15
1557	Emerging Two-Dimensional Nanomaterials for Electrocatalysis. <b>2018</b> , 118, 6337-6408	1057
1556	Exploring new two-dimensional monolayers: pentagonal transition metal borides/carbides (penta-TMB/Cs). <b>2018</b> , 6, 10226-10232	56
1555	Antiferromagnetic monolayer MnC with density functional theory prediction. <b>2018</b> , 30, 175301	3
1554	Preparation and electrochemical performances of doped MXene/poly(3,4-ethylenedioxythiophene) composites. <b>2018</b> , 220, 305-308	28
1553	Selective Etching of Silicon from Ti <sub>3</sub> SiC <sub>2</sub> (MAX) To Obtain 2D Titanium Carbide (MXene). <b>2018</b> , 130, 5542-5546	56
1552	Development of asymmetric supercapacitors with titanium carbide-reduced graphene oxide couples as electrodes. <b>2018</b> , 259, 752-761	71
1551	Towards sustainable ultrafast molecular-separation membranes: From conventional polymers to emerging materials. <b>2018</b> , 92, 258-283	184
1550	Broadband Nonlinear Photonics in Few-Layer MXene Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (T = F, O, or OH). <b>2018</b> , 12, 1700229	438
1549	Hybridizing polypyrrole chains with laminated and two-dimensional Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> toward high-performance electromagnetic wave absorption. <b>2018</b> , 434, 283-293	96
1548	Synthesis of SnS nanoparticle-modified MXene (Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> ) composites for enhanced sodium storage. <b>2018</b> , 732, 448-453	83
1547	The Ti <sub>3</sub> AlC <sub>2</sub> MAX Phase as an Efficient Catalyst for Oxidative Dehydrogenation of n-Butane. <b>2018</b> , 130, 1501-1506	14
1546	The Ti AlC MAX Phase as an Efficient Catalyst for Oxidative Dehydrogenation of n-Butane. <b>2018</b> , 57, 1485-1490	38
1545	Chemical bonding in carbide MXene nanosheets. <b>2018</b> , 224, 27-32	41
1544	Self-assembled TiCT/SCNT composite electrode with improved electrochemical performance for supercapacitor. <b>2018</b> , 511, 128-134	68
1543	Porous Zr <sub>2</sub> SC-carbon composite microspheres: Possible radiation tolerant sorbents and transmutation hosts for technetium-99. <b>2018</b> , 259, 67-78	3
1542	2D MXene/SnS <sub>2</sub> composites as high-performance anodes for sodium ion batteries. <b>2018</b> , 334, 932-938	157

1541	On the organization and thermal behavior of functional groups on Ti <sub>3</sub> C <sub>2</sub> MXene surfaces in vacuum. <b>2018</b> , 5, 015002	146
1540	Two-dimensional MXene/A-TiO <sub>2</sub> composite with unprecedented catalytic activation for sodium alanate. <b>2018</b> , 318, 167-174	22
1539	Asymmetric Flexible MXene-Reduced Graphene Oxide Micro-Supercapacitor. <b>2018</b> , 4, 1700339	244
1538	First-principles study of a MXene terahertz detector. <b>2017</b> , 10, 69-75	48
1537	First-principle study of the Nb <sub>n</sub> +1C <sub>n</sub> T <sub>2</sub> systems as electrode materials for supercapacitors. <b>2018</b> , 143, 225-231	19
1536	Two-dimensional stoichiometric boron carbides with unexpected chemical bonding and promising electronic properties. <b>2018</b> , 6, 1651-1658	23
1535	Applications of Phosphorene and Black Phosphorus in Energy Conversion and Storage Devices. <b>2018</b> , 8, 1702093	272
1534	Theranostic 2D Tantalum Carbide (MXene). <i>Advanced Materials</i> , <b>2018</b> , 30, 1703284	24 279
1533	Molecular-Level Heterostructures Assembled from Titanium Carbide MXene and NiCoAl Layered Double-Hydroxide Nanosheets for All-Solid-State Flexible Asymmetric High-Energy Supercapacitors. <b>2018</b> , 3, 132-140	173
1532	Chemical Immobilization Effect on Lithium Polysulfides for Lithium-Sulfur Batteries. <b>2018</b> , 14, 1701986	118
1531	Fabrication of hierarchical MXene-based AuNPs-containing core-shell nanocomposites for high efficient catalysts. <b>2018</b> , 3, 147-155	37
1530	Bending rigidity of two-dimensional titanium carbide (MXene) nanoribbons: A molecular dynamics study. <b>2018</b> , 143, 418-424	74
1529	Ultrathin two-dimensional MXene membrane for pervaporation desalination. <b>2018</b> , 548, 548-558	197
1528	Stretchable TiCT MXene/Carbon Nanotube Composite Based Strain Sensor with Ultrahigh Sensitivity and Tunable Sensing Range. <b>2018</b> , 12, 56-62	437
1527	Ratiometric photoluminescence sensing based on TiC MXene quantum dots as an intracellular pH sensor. <b>2018</b> , 10, 1111-1118	168
1526	Highly Dispersed Bimetallic Nanoparticles Supported on Titanium Carbides for Remarkable Hydrogen Release from Hydrous Hydrazine. <b>2018</b> , 10, 2200-2204	19
1525	MXene-coated silk-derived carbon cloth toward flexible electrode for supercapacitor application. <b>2018</b> , 27, 161-166	77
1524	Recent progress in two-dimensional inorganic quantum dots. <b>2018</b> , 47, 586-625	169

1523	Non-uniformly functionalized titanium carbide-based MXenes as an anchoring material for Li-S batteries: A first-principles calculation. <b>2018</b> , 435, 210-215	36
1522	Novel Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> /Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> nanocomposite as a high rate anode material for lithium ion batteries. <b>2018</b> , 735, 530-535	16
1521	High-Performance Ultrathin Flexible Solid-State Supercapacitors Based on Solution Processable Mo <sub>1.33</sub> C MXene and PEDOT:PSS. <b>2018</b> , 28, 1703808	138
1520	Advanced Energy Storage Devices: Basic Principles, Analytical Methods, and Rational Materials Design. <b>2018</b> , 5, 1700322	630
1519	Adsorption study of selenium ions from aqueous solutions using MgO nanosheets synthesized by ultrasonic method. <b>2018</b> , 341, 268-276	75
1518	A Red-Phosphorous-Assisted Ball-Milling Synthesis of Few-Layered Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXene) Nanodot Composite. <b>2018</b> , 4, 56-60	29
1517	MXene-based materials for electrochemical energy storage. <b>2018</b> , 27, 73-85	354
1516	In Situ High-Pressure X-ray Diffraction and Raman Spectroscopy Study of TiCT MXene. <b>2018</b> , 13, 343	28
1515	Topochemical synthesis of 2D materials. <b>2018</b> , 47, 8744-8765	142
1514	Low temperature solution synthesis of reduced two dimensional TiC MXenes with paramagnetic behaviour. <b>2018</b> , 10, 22429-22438	41
1513	Ni-modified Ti <sub>3</sub> C <sub>2</sub> MXene with enhanced microwave absorbing ability. <b>2018</b> , 2, 2320-2326	46
1512	Antibacterial properties of electrospun TiCT (MXene)/chitosan nanofibers.. <b>2018</b> , 8, 35386-35394	67
1511	Anchoring ultrafine RhNi nanoparticles on titanium carbides/manganese oxide as an efficient catalyst for hydrogen generation from hydrous hydrazine. <b>2018</b> , 42, 20001-20006	9
1510	Multi-modal, ultrasensitive, wide-range humidity sensing with TiC film. <b>2018</b> , 10, 21689-21695	45
1509	Self-supporting TiCT foam/S cathodes with high sulfur loading for high-energy-density lithium-sulfur batteries. <b>2018</b> , 10, 22954-22962	33
1508	Ti <sub>3</sub> C <sub>2</sub> MXene as an excellent anode material for high-performance microbial fuel cells. <b>2018</b> , 6, 20887-20895	33
1507	Carbon-intercalated Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene for high-performance electrochemical energy storage. <b>2018</b> , 6, 23513-23520	33
1506	Sodium hydroxide and vacuum annealing modifications of the surface terminations of a TiC (MXene) epitaxial thin film.. <b>2018</b> , 8, 36785-36790	32

1505	A general gelation strategy for 1D nanowires: dynamically stable functional gels for 3D printing flexible electronics. <b>2018</b> , 10, 20096-20107	30
1504	Two-Dimensional Titanium Carbonitride Mxene for High-Performance Sodium Ion Batteries. <b>2018</b> , 1, 6854-6863	35
1503	Oxidized 2D titanium carbide MXene. <b>2018</b> , 21, 1064-1065	23
1502	Two-Dimensional, Ordered, Double Transition Metal Carbides (MXenes): A New Family of Promising Catalysts for the Hydrogen Evolution Reaction. <b>2018</b> , 122, 28113-28122	58
1501	First-Principles Studies of Adsorptive Remediation of Water and Air Pollutants Using Two-Dimensional MXene Materials. <b>2018</b> , 11,	13
1500	Electronic and Optical Properties of 2D Transition Metal Carbides and Nitrides (MXenes). <i>Advanced Materials</i> , <b>2018</b> , 30, e1804779	24 464
1499	Electrochemical Determination of Adrenaline Using MXene/Graphite Composite Paste Electrodes. <b>2018</b> , 10, 43343-43351	76
1498	Insights into High Conductivity of the Two-Dimensional Iodine-Oxidized sp-c-COF. <b>2018</b> , 10, 43595-43602	17
1497	Graphene, related two-dimensional crystals and hybrid systems for printed and wearable electronics. <b>2018</b> , 23, 73-96	71
1496	Emerging materials for tailorable nanophotonic devices. <b>2018</b> ,	1
1495	Effect of Edge Charges on Stability and Aggregation of Ti3C2Tx MXene Colloidal Suspensions. <b>2018</b> , 122, 27745-27753	80
1494	Humidity Exposure Enhances Microscopic Mobility in a Room-Temperature Ionic Liquid in MXene. <b>2018</b> , 122, 27561-27566	11
1493	Self-Assembled Sandwich-like MXene-Derived Nanocomposites for Enhanced Electromagnetic Wave Absorption. <b>2018</b> , 10, 42925-42932	100
1492	A Conductive and Highly Deformable All-Pseudocapacitive Composite Paper as Supercapacitor Electrode with Improved Areal and Volumetric Capacitance. <b>2018</b> , 14, e1803786	104
1491	Recent Progress of MXene-Based Nanomaterials in Flexible Energy Storage and Electronic Devices. <b>2018</b> , 1, 183-195	87
1490	Impact of Different Ratios of Fluorine, Oxygen, and Hydroxyl Surface Terminations on Ti3C2Tx MXene as Ammonia Sensor: A First-Principles Study. <b>2018</b> ,	8
1489	A Facile Method to Construct MXene/CuO Nanocomposite with Enhanced Catalytic Activity of CuO on Thermal Decomposition of Ammonium Perchlorate. <b>2018</b> , 11,	16
1488	Strong Surface-Bound Sulfur in Carbon Nanotube Bridged Hierarchical Mo C-Based MXene Nanosheets for Lithium-Sulfur Batteries. <b>2019</b> , 15, e1804338	35

1487	Polyoxometalate-Derived Hexagonal Molybdenum Nitrides (MXenes) Supported by Boron, Nitrogen Codoped Carbon Nanotubes for Efficient Electrochemical Hydrogen Evolution from Seawater. <b>2018</b> , 29, 1805893	31
1486	Rational Construction of TiCT /Co-MOF-Derived Laminated Co/TiO-C Hybrids for Enhanced Electromagnetic Wave Absorption. <b>2018</b> , 34, 15854-15863	53
1485	Ultrathin Biomimetic Polymeric TiCT MXene Composite Films for Electromagnetic Interference Shielding. <b>2018</b> , 10, 44787-44795	168
1484	Aqueous Stable TiC MXene Membrane with Fast and Photoswitchable Nanofluidic Transport. <b>2018</b> , 12, 12464-12471	88
1483	Phosphorized MXene-Phase Molybdenum Carbide as an Earth-Abundant Hydrogen Evolution Electrocatalyst. <b>2018</b> , 1, 7206-7212	48
1482	Characteristics and performance of two-dimensional materials for electrocatalysis. <b>2018</b> , 1, 909-921	348
1481	Two-dimensional transition metal carbides as supports for tuning the chemistry of catalytic nanoparticles. <b>2018</b> , 9, 5258	117
1480	Exploring the synergy of 2D MXene-supported black phosphorus quantum dots in hydrogen and oxygen evolution reactions. <b>2018</b> , 6, 21255-21260	100
1479	Fluoride-Free Synthesis of Two-Dimensional Titanium Carbide (MXene) Using A Binary Aqueous System. <b>2018</b> , 130, 15717-15721	93
1478	Automated Scalpel Patterning of Solution Processed Thin Films for Fabrication of Transparent MXene Microsupercapacitors. <b>2018</b> , 14, e1802864	62
1477	Enhanced reversible Li-ion storage in Si@Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene nanocomposite. <b>2018</b> , 97, 16-21	41
1476	Multifunctional, Superelastic, and Lightweight MXene/Polyimide Aerogels. <b>2018</b> , 14, e1802479	246
1475	High Electrical Conductivity 2D MXene Serves as Additive of Perovskite for Efficient Solar Cells. <b>2018</b> , 14, e1802738	113
1474	MXene Sorbents for Removal of Urea from Dialysate: A Step toward the Wearable Artificial Kidney. <b>2018</b> , 12, 10518-10528	102
1473	MXene Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> saturable absorber for pulsed laser at 1.3 $\mu$ m. <b>2018</b> , 27, 094214	29
1472	Architecturally Robust Graphene-Encapsulated MXene TiCT @Polyaniline Composite for High-Performance Pouch-Type Asymmetric Supercapacitor. <b>2018</b> , 10, 34212-34221	92
1471	Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene Catalyzed Ethylbenzene Dehydrogenation: Active Sites and Mechanism Exploration from both Experimental and Theoretical Aspects. <b>2018</b> , 8, 10051-10057	49
1470	2D Metal Carbides and Nitrides (MXenes) as High-Performance Electrode Materials for Lithium-Based Batteries. <b>2018</b> , 8, 1801897	221

1469	A novel two-dimensional accordion-like titanium carbide (MXene) for adsorption of Cr(VI) from aqueous solution. <b>2018</b> , 08, 1850035	20
1468	Solar Photothermal Electrodes for Highly Efficient Microbial Energy Harvesting at Low Ambient Temperatures. <b>2018</b> , 11, 4071-4076	11
1467	Fluoride-Free Synthesis of Two-Dimensional Titanium Carbide (MXene) Using A Binary Aqueous System. <b>2018</b> , 57, 15491-15495	195
1466	Self-assembled MXene(Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> )/Fe <sub>2</sub> O <sub>3</sub> nanocomposite as negative electrode material for supercapacitors. <b>2018</b> , 292, 31-38	53
1465	Enhanced electrocatalytic activity by chemical nitridation of two-dimensional titanium carbide MXene for hydrogen evolution. <b>2018</b> , 6, 20869-20877	79
1464	Transition metal modification and carbon vacancy promoted Cr <sub>2</sub> CO <sub>2</sub> (MXenes): a new opportunity for a highly active catalyst for the hydrogen evolution reaction. <b>2018</b> , 6, 20956-20965	48
1463	Universal TiC MXenes Based Self-Standard Ratiometric Fluorescence Resonance Energy Transfer Platform for Highly Sensitive Detection of Exosomes. <b>2018</b> , 90, 12737-12744	156
1462	A fast approach to the synthesis of MO/CNT/Fe hybrid nanostructures built on MXene for enhanced Li-ion uptake. <b>2018</b> , 44, 22456-22461	3
1461	Printing 2D Materials. <b>2018</b> , 131-205	4
1460	Chemical Stability of Ti <sub>3</sub> C <sub>2</sub> MXene with Al in the Temperature Range 500-700 °C. <b>2018</b> , 11,	23
1459	Efficient Visible-Light Photocatalysis of 2D-MXene Nanohybrids with Gd- and Sn-Codoped Bismuth Ferrite. <b>2018</b> , 3, 13828-13836	59
1458	Study of MXene-filled polyurethane nanocomposites prepared via an emulsion method. <b>2018</b> , 168, 404-411	52
1457	Enhancing the Photocatalytic Performance of MXenes via Stoichiometry Engineering of Their Electronic and Optical Properties. <b>2018</b> , 10, 39879-39889	29
1456	Insight into the catalytic activity of MXenes for hydrogen evolution reaction. <b>2018</b> , 63, 1397-1403	29
1455	Carbon dioxide adsorption of two-dimensional carbide MXenes. <b>2018</b> , 7, 237-245	58
1454	Ultrafast Fabrication of TiO <sub>2</sub> -Inlaid Multilayered Carbon for Supercapacitor. <b>2018</b> , 3, 10811-10814	1
1453	Superlithiated Polydopamine Derivative for High-Capacity and High-Rate Anode for Lithium-Ion Batteries. <b>2018</b> , 10, 38101-38108	40
1452	Strong metal-support interactions impart activity in the oxygen reduction reaction: Au monolayer on MoC (MXene). <b>2018</b> , 30, 475201	18

1451	Heterostructured d-Ti C /TiO g-C N Nanocomposites with Enhanced Visible-Light Photocatalytic Hydrogen Production Activity. <b>2018</b> , 11, 4226-4236	84
1450	2D Ti <sub>3</sub> C <sub>2</sub> MXene/WO <sub>3</sub> Hybrid Architectures for High-Rate Supercapacitors. <b>2018</b> , 5, 1801361	56
1449	Preparation of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene-Derived Quantum Dots with White/Blue-Emitting Photoluminescence and Electrochemiluminescence. <b>2018</b> , 6, 1800951	42
1448	Engineering Sub-Nanometer Channels in Two-Dimensional Materials for Membrane Gas Separation. <b>2018</b> , 8,	15
1447	Intertwined Titanium Carbide MXene within a 3 D Tangled Polypyrrole Nanowires Matrix for Enhanced Supercapacitor Performances. <b>2019</b> , 25, 1037-1043	32
1446	MXene-Based Nonlinear Optical Information Converter for All-Optical Modulator and Switcher. <b>2018</b> , 12, 1800215	91
1445	The Synthesis Process and Thermal Stability of V <sub>2</sub> C MXene. <b>2018</b> , 11,	80
1444	Insights into the Electrocatalytic Hydrogen Evolution Reaction Mechanism on Two-Dimensional Transition-Metal Carbonitrides (MXene). <b>2018</b> , 24, 18479-18486	54
1443	Highly Electrically Conductive Three-Dimensional TiCT MXene/Reduced Graphene Oxide Hybrid Aerogels with Excellent Electromagnetic Interference Shielding Performances. <b>2018</b> , 12, 11193-11202	409
1442	Hybrid Architectures based on 2D MXenes and Low-Dimensional Inorganic Nanostructures: Methods, Synergies, and Energy-Related Applications. <b>2018</b> , 14, e1803632	37
1441	Two-Dimensional NiSe/N-Rich Carbon Nanocomposites Derived from Ni-Hexamine Frameworks for Superb Na-Ion Storage. <b>2018</b> , 10, 34193-34201	75
1440	Hierarchical Cobalt Borate/MXenes Hybrid with Extraordinary Electrocatalytic Performance in Oxygen Evolution Reaction. <b>2018</b> , 11, 3758-3765	40
1439	Measurement and Analysis of Thermal Conductivity of Ti <sub>3</sub> C <sub>2</sub> MXene Films. <b>2018</b> , 11,	49
1438	Synergetic enhancement of oxygen evolution reaction by Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> nanosheets supported amorphous FeOOH quantum dots. <b>2018</b> , 290, 364-368	20
1437	A titanium-based photo-Fenton bifunctional catalyst of mp-MXene/TiO nanodots for dramatic enhancement of catalytic efficiency in advanced oxidation processes. <b>2018</b> , 54, 11622-11625	54
1436	Study of Mxene: Characterization and Radiation Properties of Two-Dimensional Titanium Carbide. <b>2018</b> , 280, 31-35	
1435	Enhanced Thermal Boundary Conductance in Few-Layer Ti C MXene with Encapsulation. <i>Advanced Materials</i> , <b>2018</b> , 30, e1801629	24 35
1434	Therapeutic mesopore construction on 2D NbC MXenes for targeted and enhanced chemo-photothermal cancer therapy in NIR-II biowindow. <b>2018</b> , 8, 4491-4508	94



1433	Electrodeposition of a Ni-P-Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> /MoS <sub>2</sub> coating incorporating MoS <sub>2</sub> intercalated Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> particles. <b>2018</b> , 354, 119-125	11
1432	Further surface modification by carbon coating for in-situ growth of Fe <sub>3</sub> O <sub>4</sub> nanoparticles on MXene Ti <sub>3</sub> C <sub>2</sub> multilayers for advanced Li-ion storage. <b>2018</b> , 289, 228-237	33
1431	Layer-by-Layer Assembly of Cross-Functional Semi-transparent MXene-Carbon Nanotubes Composite Films for Next-Generation Electromagnetic Interference Shielding. <b>2018</b> , 28, 1803360	270
1430	Boosting the Electrochemical Performance of Li-S Batteries with a Dual Polysulfides Confinement Strategy. <b>2018</b> , 14, e1802516	47
1429	Anion Adsorption, Ti <sub>3</sub> C <sub>2</sub> T <sub>z</sub> MXene Multilayers, and Their Effect on Claylike Swelling. <b>2018</b> , 122, 23172-23179	29
1428	Variable range hopping and thermally activated transport in molybdenum-based MXenes. <b>2018</b> , 98,	41
1427	Growth of WS <sub>2</sub> flakes on Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene Using Vapor Transportation Routine. <b>2018</b> , 8, 281	10
1426	Two-Dimensional TiC MXene for High-Resolution Neural Interfaces. <b>2018</b> , 12, 10419-10429	82
1425	Epitaxial Growth of Few-Layer Black Phosphorene Quantum Dots on Si Substrates. <b>2018</b> , 5, 1801048	14
1424	A novel MnO <sub>2</sub> /Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene nanocomposite as high performance electrode materials for flexible supercapacitors. <b>2018</b> , 290, 695-703	100
1423	Ultralight MXene-Coated, Interconnected SiC <sub>n</sub> s Three-Dimensional Lamellar Foams for Efficient Microwave Absorption in the X-Band. <b>2018</b> , 10, 34524-34533	110
1422	Highly Carbon-Doped TiO <sub>2</sub> Derived from MXene Boosting the Photocatalytic Hydrogen Evolution. <b>2018</b> , 6, 13480-13486	75
1421	The Marriage of the FeN Moiety and MXene Boosts Oxygen Reduction Catalysis: Fe 3d Electron Delocalization Matters. <i>Advanced Materials</i> , <b>2018</b> , 30, e1803220	24 157
1420	MXene Aerogel Scaffolds for High-Rate Lithium Metal Anodes. <b>2018</b> , 130, 15248-15253	37
1419	MXene Aerogel Scaffolds for High-Rate Lithium Metal Anodes. <b>2018</b> , 57, 15028-15033	194
1418	Ti <sub>3</sub> C <sub>2</sub> (OH) <sub>2</sub> coated Li(Ni <sub>0.6</sub> Co <sub>0.2</sub> Mn <sub>0.2</sub> )O <sub>2</sub> cathode material with enhanced electrochemical properties for lithium ion battery. <b>2018</b> , 289, 120-130	18
1417	Ultrathin MXene Nanosheets Decorated with TiO Quantum Dots as an Efficient Sulfur Host toward Fast and Stable Li-S Batteries. <b>2018</b> , 14, e1802443	89
1416	Cu-Cluster-Doped Monolayer MoCO (MXene) as an Electron Reservoir for Catalyzing a CO Oxidation Reaction. <b>2018</b> , 10, 32903-32912	38

1415	Advanced Functional Carbons and Their Hybrid Nanoarchitectures towards Supercapacitor Applications. <b>2018</b> , 11, 3546-3558	56
1414	Efficient and scalable synthesis of highly aligned and compact two-dimensional nanosheet films with record performances. <b>2018</b> , 9, 3484	88
1413	Pressure-induced reversible phase transition on Mo <sub>2</sub> Ga <sub>2</sub> C. <b>2018</b> , 124, 085903	5
1412	Biofunctionalized two-dimensional TiC MXenes for ultrasensitive detection of cancer biomarker. <b>2018</b> , 121, 243-249	187
1411	Effect of Synthesis on Performance of MXene/Iron Oxide Anode Material for Lithium-Ion Batteries. <b>2018</b> , 34, 11325-11334	34
1410	MXene/Graphene Heterostructures as High-Performance Electrodes for Li-Ion Batteries. <b>2018</b> , 10, 32867-32873	32
1409	Heterostructural TiO <sub>2</sub> /Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXene) for photocatalytic degradation of antiepileptic drug carbamazepine. <b>2018</b> , 349, 748-755	174
1408	A novel potential modulated amino acid sensing chip modified by MXene for total internal reflection imaging ellipsometry biosensor. <b>2018</b> ,	3
1407	Advances in Polar Materials for Lithium Sulfur Batteries. <b>2018</b> , 28, 1707520	181
1406	Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene as a Janus cocatalyst for concurrent promoted photoactivity and inhibited photocorrosion. <b>2018</b> , 237, 43-49	119
1405	Anchoring effects of S-terminated Ti <sub>2</sub> C MXene for lithium-sulfur batteries: A first-principles study. <b>2018</b> , 455, 522-526	83
1404	Reduced graphene oxide bridged, TiO <sub>2</sub> modified and Mn <sub>3</sub> O <sub>4</sub> intercalated Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> sandwich-like nanocomposite as a high performance anode for enhanced lithium storage applications. <b>2018</b> , 762, 643-652	13
1403	3D hybrid porous Mxene-sponge network and its application in piezoresistive sensor. <b>2018</b> , 50, 79-87	264
1402	Surface Nanopore Engineering of 2D MXenes for Targeted and Synergistic Multitherapies of Hepatocellular Carcinoma. <i>Advanced Materials</i> , <b>2018</b> , 30, e1706981	24 118
1401	MXene encapsulated titanium oxide nanospheres for ultra-stable and fast sodium storage. <b>2018</b> , 14, 306-313	77
1400	Enhanced Hydrogen Storage Properties and Reversibility of LiBH Confined in Two-Dimensional TiC. <b>2018</b> , 10, 19598-19604	43
1399	On the Structural Stability of MXene and the Role of Transition Metal Adatoms. <b>2018</b> , 10, 10850-10855	48
1398	Two-dimensional MXene incorporated chitosan mixed-matrix membranes for efficient solvent dehydration. <b>2018</b> , 563, 625-632	81

1397	Improving barium ion adsorption on two-dimensional titanium carbide by surface modification. <b>2018</b> , 47, 8375-8381	40
1396	An evolving energy solution: Intermediate hydrogen storage. <b>2018</b> , 43, 12168-12188	46
1395	Inherent electrochemistry and charge transfer properties of few-layered two-dimensional TiCT MXene. <b>2018</b> , 10, 17030-17037	28
1394	Selective gas diffusion in two-dimensional MXene lamellar membranes: insights from molecular dynamics simulations. <b>2018</b> , 6, 11734-11742	61
1393	Self-assembled MXene-based nanocomposites via layer-by-layer strategy for elevated adsorption capacities. <b>2018</b> , 553, 105-113	53
1392	Synthesis of Two-Dimensional Nb <sub>1.33</sub> C (MXene) with Randomly Distributed Vacancies by Etching of the Quaternary Solid Solution (Nb <sub>2</sub> /3Sc <sub>1/3</sub> ) <sub>2</sub> AlC MAX Phase. <b>2018</b> , 1, 2455-2460	93
1391	Adsorptive environmental applications of MXene nanomaterials: a review.. <b>2018</b> , 8, 19895-19905	186
1390	Machine-Learning-Assisted Accurate Band Gap Predictions of Functionalized MXene. <b>2018</b> , 30, 4031-4038	125
1389	Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> -foam as free-standing electrode for supercapacitor with improved electrochemical performance. <b>2018</b> , 44, 13901-13907	27
1388	Ag-Nanoparticle-Decorated 2D Titanium Carbide (MXene) with Superior Electrochemical Performance for Supercapacitors. <b>2018</b> , 6, 7442-7450	70
1387	In Situ Formed Protective Barrier Enabled by Sulfur@Titanium Carbide (MXene) Ink for Achieving High-Capacity, Long Lifetime Li-S Batteries. <b>2018</b> , 5, 1800502	147
1386	MXene nanoribbons as electrocatalysts for the hydrogen evolution reaction with fast kinetics. <b>2018</b> , 20, 19390-19397	53
1385	Enhancing the lithium storage capabilities of TiO <sub>2</sub> nanoparticles using delaminated MXene supports. <b>2018</b> , 44, 17660-17666	13
1384	Polyester@MXene nanofibers-based yarn electrodes. <b>2018</b> , 396, 683-690	88
1383	In-situ grown nanocrystal TiO <sub>2</sub> on 2D Ti <sub>3</sub> C <sub>2</sub> nanosheets for artificial photosynthesis of chemical fuels. <b>2018</b> , 51, 442-450	90
1382	Superior structural, elastic and electronic properties of 2D titanium nitride MXenes over carbide MXenes: a comprehensive first principles study. <b>2018</b> , 5, 045004	77
1381	Cold Sintered Ceramic Nanocomposites of 2D MXene and Zinc Oxide. <i>Advanced Materials</i> , <b>2018</b> , 30, e1801846	104
1380	Partially Etched Ti AlC as a Promising High-Capacity Lithium-Ion Battery Anode. <b>2018</b> , 11, 2677-2680	15

1379	High-capacitance TiCT MXene obtained by etching submicron TiAlC grains grown in molten salt. <b>2018</b> , 54, 8132-8135	24	
1378	Tuning the optical properties of phosphorene by adsorption of alkali metals and halogens. <b>2018</b> , 50, 1		7
1377	Atomic Cobalt Covalently Engineered Interlayers for Superior Lithium-Ion Storage. <i>Advanced Materials</i> , <b>2018</b> , 30, e1802525	24	129
1376	Structural, electronic and mechanical properties of two-dimensional Janus transition metal carbides and nitrides. <b>2018</b> , 103, 307-313		18
1375	The phase and morphological evolution of Ti <sub>3</sub> SiC <sub>2</sub> MAX phase powder after HF treatment. <b>2018</b> , 44, 17992-18000		14
1374	Effect of mixed surface terminations on the structural and electrochemical properties of two-dimensional TiCT and VCT MXenes multilayers. <b>2018</b> , 10, 13520-13530		67
1373	Size-Dependent Physical and Electrochemical Properties of Two-Dimensional MXene Flakes. <b>2018</b> , 10, 24491-24498		150
1372	Exploring the interfacial state and tensile behaviors in nickel matrix composite with in-situ TiC and $\text{Ni}_3(\text{Al,Ti})$ reinforcements. <b>2018</b> , 765, 987-993		14
1371	First-principles study on the electrical and thermal properties of the semiconducting Sc(CN)F MXene.. <b>2018</b> , 8, 22452-22459		14
1370	One-pot hydrothermal synthesis of MoO <sub>3</sub> /TiO <sub>2</sub> /2D layered Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> ternary composites to enhance the electrochemical properties. <b>2018</b> , 767, 264-269		3
1369	MXene Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> absorber for a 1.06 $\mu\text{m}$ passively Q-switched ceramic laser. <b>2018</b> , 15, 085805		70
1368	Recent Advances in Growth of Novel 2D Materials: Beyond Graphene and Transition Metal Dichalcogenides. <i>Advanced Materials</i> , <b>2018</b> , 30, e1800865	24	135
1367	Insights into 2D MXenes for Versatile Biomedical Applications: Current Advances and Challenges Ahead. <b>2018</b> , 5, 1800518		245
1366	Graphene-decorated microfiber knot as a broadband resonator for ultrahigh-repetition-rate pulse fiber lasers. <b>2018</b> , 6, C1		40
1365	Self-Assemble and In Situ Formation of Ni <sub>1-x</sub> Fe <sub>x</sub> PS <sub>3</sub> Nanomosaic-Decorated MXene Hybrids for Overall Water Splitting. <b>2018</b> , 8, 1801127		131
1364	Hybridization of Binary Non-Precious-Metal Nanoparticles with d-Ti <sub>3</sub> C <sub>2</sub> MXene for Catalyzing the Oxygen Reduction Reaction. <b>2018</b> , 5, 3307-3314		18
1363	Complexity of Intercalation in MXenes: Destabilization of Urea by Two-Dimensional Titanium Carbide. <b>2018</b> , 140, 10305-10314		58
1362	Hydrogen storage performances and reaction mechanism of non-stoichiometric compound Li <sub>1.3</sub> Na <sub>1.7</sub> AlH <sub>6</sub> doped with Ti <sub>3</sub> C <sub>2</sub> . <b>2018</b> , 513, 135-140		6

1361	Germanene Growth on Al(111): A Case Study of Interface Effect. <b>2018</b> , 122, 18669-18681	14
1360	Flexible Ti <sub>3</sub> C <sub>2</sub> Tx@Al electrodes with Ultrahigh Areal Capacitance: In Situ Regulation of Interlayer Conductivity and Spacing. <b>2018</b> , 28, 1803196	41
1359	Mixed phase titanium carbide (Ti-C-Tx): A strategy to design a significant electrocatalyst for oxygen electroreduction and storage application. <b>2018</b> , 458, 819-826	12
1358	Screening Surface Structure of MXenes by High-Throughput Computation and Vibrational Spectroscopic Confirmation. <b>2018</b> , 122, 18501-18509	73
1357	Tight-binding model for opto-electronic properties of penta-graphene nanostructures. <b>2018</b> , 8, 11070	16
1356	2D Superparamagnetic Tantalum Carbide Composite MXenes for Efficient Breast-Cancer Theranostics. <b>2018</b> , 8, 1648-1664	116
1355	Controlling the Dimensions of 2D MXenes for Ultrahigh-Rate Pseudocapacitive Energy Storage. <b>2018</b> , 10, 25949-25954	75
1354	Functional MXene Materials: Progress of Their Applications. <b>2018</b> , 13, 2742-2757	86
1353	A visible-light-sensitive siloxene-based composite material with enhanced photocatalytic activity. <b>2018</b> , 365, 32-38	1
1352	Recent advances in functional nanostructures as cancer photothermal therapy. <b>2018</b> , 13, 2897-2906	75
1351	An experimental and theoretical study of the hydrogen resistance of Ti <sub>3</sub> SiC <sub>2</sub> and Ti <sub>3</sub> AlC <sub>2</sub> . <b>2018</b> , 142, 295-304	4
1350	Two-Dimensional MXene (TiC)-Integrated Cellulose Hydrogels: Toward Smart Three-Dimensional Network Nanoplatfoms Exhibiting Light-Induced Swelling and Bimodal Photothermal/Chemotherapy Anticancer Activity. <b>2018</b> , 10, 27631-27643	217
1349	Recent advances in 2-D nanostructured metal nitrides, carbides, and phosphides electrodes for electrochemical supercapacitors A brief review. <b>2018</b> , 67, 12-27	78
1348	Binder-free bonding of modularized MXene thin films into thick film electrodes for on-chip micro-supercapacitors with enhanced areal performance metrics. <b>2018</b> , 6, 14876-14884	46
1347	The Graphenes Cousins From Dream to Reality. <b>2018</b> , 103-136	4
1346	Stability and electronic properties of sulfur terminated two-dimensional early transition metal carbides and nitrides (MXene). <b>2018</b> , 153, 303-308	27
1345	Coincident modulation of lattice and electron thermal transport performance in MXenes via surface functionalization. <b>2018</b> , 20, 19689-19697	13
1344	A Review of Carbon Nanomaterials' Synthesis via the Chemical Vapor Deposition (CVD) Method. <b>2018</b> , 11,	186

1343	Synthesis and Electrochemical Properties of Two-Dimensional RGO/Ti <sub>3</sub> C <sub>2</sub> MXene Nanocomposites. <b>2018</b> , 8,	58
1342	Palladium Supported on Titanium Carbide: A Highly Efficient, Durable, and Recyclable Bifunctional Catalyst for the Transformation of 4-Chlorophenol and 4-Nitrophenol. <b>2018</b> , 8,	14
1341	TiC MXene High Energy Density Cathode for Lithium-Air Battery. <b>2018</b> , 1, 1800059	11
1340	Mesoporous Hierarchical Structure of Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> /Graphene with High Electrochemical Performance in Lithium-Ion Batteries. <b>2018</b> , 6, 11360-11366	19
1339	Electronic structure of V <sub>2</sub> AlC. <b>2018</b> , 98,	2
1338	Two-Dimensional Materials for Antimicrobial Applications: Graphene Materials and Beyond. <b>2018</b> , 13, 3378-3410	66
1337	Origin of Chemically Ordered Atomic Laminates (i-MAX): Expanding the Elemental Space by a Theoretical/Experimental Approach. <b>2018</b> , 12, 7761-7770	49
1336	Printable Nanomaterials for the Fabrication of High-Performance Supercapacitors. <b>2018</b> , 8,	37
1335	Highly efficient photoelectrocatalytic reduction of CO <sub>2</sub> on the Ti <sub>3</sub> C <sub>2</sub> /g-C <sub>3</sub> N <sub>4</sub> heterojunction with rich Ti <sup>3+</sup> and pyri-N species. <b>2018</b> , 6, 15213-15220	63
1334	Adding a New Member to the MXene Family: Synthesis, Structure, and Electrocatalytic Activity for the Hydrogen Evolution Reaction of V <sub>4</sub> C <sub>3</sub> T <sub>x</sub> . <b>2018</b> , 1, 3908-3914	98
1333	Type-II Multiferroic HFVCF MXene Monolayer with High Transition Temperature. <b>2018</b> , 140, 9768-9773	105
1332	Transition-Metal Dihydride Monolayers: A New Family of Two-Dimensional Ferromagnetic Materials with Intrinsic Room-Temperature Half-Metallicity. <b>2018</b> , 9, 4260-4266	87
1331	A hydrothermal etching route to synthesis of 2D MXene (Ti <sub>3</sub> C <sub>2</sub> , Nb <sub>2</sub> C): Enhanced exfoliation and improved adsorption performance. <b>2018</b> , 44, 18886-18893	145
1330	Understanding Interlayer Coupling in TMD-hBN Heterostructure by Raman Spectroscopy. <b>2018</b> , 65, 4059-4067	18
1329	Hierarchically structured cellulose aerogels with interconnected MXene networks and their enhanced microwave absorption properties. <b>2018</b> , 6, 8679-8687	127
1328	Boosting electrocatalytic oxygen evolution by synergistically coupling layered double hydroxide with MXene. <b>2018</b> , 44, 181-190	304
1327	Enhanced lithium and electron diffusion of LiFePO <sub>4</sub> cathode with two-dimensional Ti <sub>3</sub> C <sub>2</sub> MXene nanosheets. <b>2018</b> , 53, 11078-11090	25
1326	Recent progress on confinement of polysulfides through physical and chemical methods. <b>2018</b> , 27, 1555-1565	89

1325	Influence of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXene) intercalation pseudocapacitance on electrochemical performance of Co-MOF binder-free electrode. <b>2018</b> , 44, 14425-14431	43
1324	TlS: a metal-shrouded two-dimensional semiconductor. <b>2018</b> , 20, 14778-14784	11
1323	Fabrication of high-performance MXene-based all-solid-state flexible microsupercapacitor based on a facile scratch method. <b>2018</b> , 29, 445401	32
1322	Transition Metal Carbide Complex Architectures for Energy-Related Applications. <b>2018</b> , 24, 16716-16736	21
1321	2D Nanospace Confined Synthesis of Pseudocapacitance-Dominated MoS <sub>2</sub> -in-Ti <sub>3</sub> C <sub>2</sub> Superstructure for Ultrafast and Stable Li/Na-Ion Batteries. <b>2018</b> , 28, 1804306	139
1320	Rationally designing S/TiCT as a cathode material with an interlayer for high-rate and long-cycle lithium-sulfur batteries. <b>2018</b> , 10, 16935-16942	33
1319	Comprehensive New Insights and Perspectives into Ti-Based Anodes for Next-Generation Alkaline Metal (Na <sup>+</sup> , K <sup>+</sup> ) Ion Batteries. <b>2018</b> , 8, 1801888	100
1318	Tailoring properties in 2D materials. <b>2018</b> ,	
1317	Transmission Electron Microscopy of Two-Dimensional MXene Sheets. <b>2018</b> , 24, 1608-1609	3
1316	Discovery of Two-Dimensional Quantum Spin Hall Effect in Triangular Transition-Metal Carbides. <b>2018</b> , 35, 087303	2
1315	Bistacked Titanium Carbide (MXene) Anodes for Hybrid Sodium-Ion Capacitors. <b>2018</b> , 3, 2094-2100	103
1314	Hexagonal TiB monolayer: a promising anode material offering high rate capability for Li-ion and Na-ion batteries. <b>2018</b> , 20, 22168-22178	49
1313	Self-Assembly CoreShell Graphene-Bridged Hollow MXenes Spheres 3D Foam with Ultrahigh Specific EM Absorption Performance. <b>2018</b> , 28, 1803938	366
1312	Ag <sub>3</sub> PO <sub>4</sub> /Ti <sub>3</sub> C <sub>2</sub> MXene interface materials as a Schottky catalyst with enhanced photocatalytic activities and anti-photocorrosion performance. <b>2018</b> , 239, 545-554	289
1311	High efficiency photocatalytic hydrogen production over ternary Cu/TiO <sub>2</sub> @Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> enabled by low-work-function 2D titanium carbide. <b>2018</b> , 53, 97-107	187
1310	Solvent-regulated preparation of well-intercalated TiCT MXene nanosheets and application for highly effective electromagnetic wave absorption. <b>2018</b> , 29, 355201	47
1309	Seawater electrolyte-mediated high volumetric MXene-based electrochemical symmetric supercapacitors. <b>2018</b> , 47, 8676-8682	27
1308	Effect of synthesis temperature on the phase structure, morphology and electrochemical performance of Ti <sub>3</sub> C <sub>2</sub> as an anode material for Li-ion batteries. <b>2018</b> , 44, 16214-16218	12

1307	2D MXene Nanofilms with Tunable Gas Transport Channels. <b>2018</b> , 28, 1801511	197
1306	MXene: An emerging material for sensing and biosensing. <b>2018</b> , 105, 424-435	268
1305	hybridization of an MXene/TiO/NiFeCo-layered double hydroxide composite for electrochemical and photoelectrochemical oxygen evolution.. <b>2018</b> , 8, 20576-20584	46
1304	A novel solid-solution MXene (Ti <sub>0.5</sub> V <sub>0.5</sub> ) <sub>3</sub> C <sub>2</sub> with high catalytic activity for hydrogen storage in MgH <sub>2</sub> . <b>2018</b> , 1, 114-120	32
1303	Preparation of 2D material dispersions and their applications. <b>2018</b> , 47, 6224-6266	291
1302	Exploring MXenes as Cathodes for Non-Aqueous Lithium-Oxygen Batteries: Design Rules for Selectively Nucleating Li O. <b>2018</b> , 11, 1911-1918	19
1301	Topochemical Deintercalation of Al from MoAlB: Stepwise Etching Pathway, Layered Intergrowth Structures, and Two-Dimensional MBene. <b>2018</b> , 140, 8833-8840	104
1300	Elastic properties of 2D TiCT MXene monolayers and bilayers. <b>2018</b> , 4, eaat0491	380
1299	Two-dimensional materials for gas sensors: from first discovery to future possibilities. <b>2018</b> , 6, 205-230	14
1298	Tuning Noncollinear Spin Structure and Anisotropy in Ferromagnetic Nitride MXenes. <b>2018</b> , 12, 6319-6325	73
1297	Environment-Sensitive Photoresponse of Spontaneously Partially Oxidized TiC MXene Thin Films. <b>2018</b> , 12, 6109-6116	132
1296	Towards enhanced energy density of graphene-based supercapacitors: Current status, approaches, and future directions. <b>2018</b> , 396, 182-206	79
1295	Metal-Organic Framework-Derived Nickel-Cobalt Sulfide on Ultrathin Mxene Nanosheets for Electrocatalytic Oxygen Evolution. <b>2018</b> , 10, 22311-22319	184
1294	In situ atomistic insight into the growth mechanisms of single layer 2D transition metal carbides. <b>2018</b> , 9, 2266	89
1293	In Situ Growth of Cobalt Nanoparticles Encapsulated Nitrogen-Doped Carbon Nanotubes among Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXene) Matrix for Oxygen Reduction and Evolution. <b>2018</b> , 5, 1800392	69
1292	Double transition metal MXenes with wide band gaps and novel magnetic properties. <b>2018</b> , 10, 11962-11968	51
1291	Ultrathin Metal-Organic Framework: An Emerging Broadband Nonlinear Optical Material for Ultrafast Photonics. <b>2018</b> , 6, 1800561	214
1290	Interface-Assisted Synthesis of 2D Materials: Trend and Challenges. <b>2018</b> , 118, 6189-6235	358



1289	Electronic structure, bonding characteristics, and mechanical properties in (WSc)AlC and (WY)AlC i-MAX phases from first-principles calculations. <b>2018</b> , 30, 305502		3
1288	Preparation and photocatalytic activity of TiO <sub>2</sub> -loaded Ti <sub>3</sub> C <sub>2</sub> with small interlayer spacing. <b>2018</b> , 124, 1		18
1287	Two-Dimensional Tetragonal Titanium Carbide: a High-Capacity and High-Rate Battery Material. <b>2018</b> , 122, 15118-15124		31
1286	A comparative study on the oxidation of two-dimensional Ti <sub>3</sub> C <sub>2</sub> MXene structures in different environments. <b>2018</b> , 6, 12733-12743		124
1285	2D titanium carbide (MXene) electrodes with lower-F surface for high performance lithium-ion batteries. <b>2019</b> , 31, 148-153		52
1284	Structures, Properties and Applications of 2D Materials. <b>2019</b> , 19-51		2
1283	2D material as anode for sodium ion batteries: Recent progress and perspectives. <b>2019</b> , 16, 323-343		148
1282	Engineering 2D Architectures toward High-Performance Micro-Supercapacitors. <i>Advanced Materials</i> , <b>2019</b> , 31, e1802793	24	143
1281	Facile preparation of BiOCl/Ti <sub>3</sub> C <sub>2</sub> hybrid photocatalyst with enhanced visible-light photocatalytic activity. <b>2019</b> , 12, 1850100		16
1280	Recent progress in functionalized layered double hydroxides and their application in efficient electrocatalytic water oxidation. <b>2019</b> , 32, 93-104		47
1279	MXene as a non-metal charge mediator in 2D layered CdS@Ti <sub>3</sub> C <sub>2</sub> @TiO <sub>2</sub> composites with superior Z-scheme visible light-driven photocatalytic activity. <b>2019</b> , 6, 3158-3169		55
1278	Covalent stabilization and functionalization of MXene via silylation reactions with improved surface properties. <b>2019</b> , 17, 100128		44
1277	Electrostatic Self-Assembly of TiCT MXene and Gold Nanorods as an Efficient Surface-Enhanced Raman Scattering Platform for Reliable and High-Sensitivity Determination of Organic Pollutants. <b>2019</b> , 4, 2303-2310		53
1276	Recent advances in exfoliation techniques of layered and non-layered materials for energy conversion and storage. <b>2019</b> , 7, 23512-23536		53
1275	Resistance switching characteristics and mechanisms of MXene/SiO <sub>2</sub> structure-based memristor. <b>2019</b> , 115, 063501		20
1274	Synthesis and microwave absorption of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene with diverse reactant concentration, reaction time, and reaction temperature. <b>2019</b> , 45, 23600-23610		15
1273	pH-Dependent Distribution of Functional Groups on Titanium-Based MXenes. <b>2019</b> , 13, 9171-9181		45
1272	Electrochemical Behavior of Ti C T MXene in Environmentally Friendly Methanesulfonic Acid Electrolyte. <b>2019</b> , 12, 4480-4486		10

1271	Effect of surface termination on the lattice thermal conductivity of monolayer Ti <sub>3</sub> C <sub>2</sub> T <sub>z</sub> MXenes. <b>2019</b> , 126, 065101	27
1270	TiC MXene as a novel substrate provides rapid differentiation and quantitation of glycan isomers with LDI-MS. <b>2019</b> , 55, 10619-10622	12
1269	2D GeP as a Novel Broadband Nonlinear Optical Material for Ultrafast Photonics. <b>2019</b> , 13, 1900123	53
1268	TiCT MXene nanosheet-confined Pt nanoparticles efficiently catalyze dye-sensitized photocatalytic hydrogen evolution reaction. <b>2019</b> , 55, 10631-10634	23
1267	Novel two-dimensional tetragonal vanadium carbides and nitrides as promising materials for Li-ion batteries. <b>2019</b> , 21, 19513-19520	14
1266	Lithium-ion battery fast charging: A review. <b>2019</b> , 1, 100011	37 <sup>1</sup>
1265	Ultra-thin titanium carbide (MXene) sheet membranes for high-efficient oil/water emulsions separation. <b>2019</b> , 592, 117361	54
1264	Accelerating hole extraction by inserting 2D Ti <sub>3</sub> C <sub>2</sub> -MXene interlayer to all inorganic perovskite solar cells with long-term stability. <b>2019</b> , 7, 20597-20603	77
1263	Electrically Conductive, Transparent Polymeric Nanocomposites Modified by 2D TiCT (MXene). <b>2019</b> , 11,	16
1262	Unleashing the potential of Ti <sub>2</sub> CT <sub>x</sub> MXene as a pulse modulator for mid-infrared fiber lasers. <b>2019</b> , 6, 045038	54
1261	Functionalization of 2D materials for enhancing OER/ORR catalytic activity in Li <sup>+</sup> oxygen batteries. <b>2019</b> , 2,	31
1260	Two-Dimensional Conjugated Aromatic Networks as High-Site-Density and Single-Atom Electrocatalysts for the Oxygen Reduction Reaction. <b>2019</b> , 131, 14866-14872	15
1259	Two-Dimensional Conjugated Aromatic Networks as High-Site-Density and Single-Atom Electrocatalysts for the Oxygen Reduction Reaction. <b>2019</b> , 58, 14724-14730	75
1258	High-performance flexible sensing devices based on polyaniline/MXene nanocomposites. <b>2019</b> , 1, 407-416	208
1257	Ultra-Wear-Resistant MXene-Based Composite Coating via in Situ Formed Nanostructured Tribofilm. <b>2019</b> , 11, 32569-32576	37
1256	MXene-Reduced Graphene Oxide Aerogel for Aqueous Zinc-Ion Hybrid Supercapacitor with Ultralong Cycle Life. <b>2019</b> , 5, 1900537	14 <sup>0</sup>
1255	Structural, elastic, thermal and lattice dynamic properties of new 321 MAX phases. <b>2019</b> , 170, 109144	18
1254	Rapid synthesis of MXenes at room temperature. <b>2019</b> , 35, 1904-1907	5

1253	Self-Propagating High-Temperature Synthesis in a TiAlC Powder System Using Different Carbon Precursors. <b>2019</b> , 55, 349-356	2
1252	An N-doped porous carbon/MXene composite as a sulfur host for lithium-sulfur batteries. <b>2019</b> , 6, 2894-2899	16
1251	Three-dimensional porous MXene/NiCo-LDH composite for high performance non-enzymatic glucose sensor. <b>2019</b> , 495, 143554	67
1250	Stable high-voltage aqueous pseudocapacitive energy storage device with slow self-discharge. <b>2019</b> , 64, 103961	49
1249	TiC MXene quantum dot-encapsulated liposomes for photothermal immunoassays using a portable near-infrared imaging camera on a smartphone. <b>2019</b> , 11, 15659-15667	104
1248	Theoretical insights into nitrogen fixation on Ti <sub>2</sub> C and Ti <sub>2</sub> CO <sub>2</sub> in a lithium-nitrogen battery. <b>2019</b> , 7, 19950-19960	10
1247	Enhanced low-temperature Li-ion storage in MXene titanium carbide by surface oxygen termination. <b>2019</b> , 6, 045025	35
1246	Butyllithium-Treated Ti <sub>3</sub> C <sub>2</sub> MXene with Excellent Pseudocapacitor Performance. <b>2019</b> , 13, 9449-9456	65
1245	Sulfur-functionalized vanadium carbide MXene (VCS) as a promising anchoring material for lithium-sulfur batteries. <b>2019</b> , 21, 18559-18568	56
1244	Functionalization with MXene (Ti <sub>3</sub> C <sub>2</sub> ) Enhances the Wettability and Shear Strength of Carbon Fiber-Epoxy Composites. <b>2019</b> , 2, 5553-5562	35
1243	Mid-infrared Er:CaF <sub>2</sub> /BrF <sub>2</sub> bulk laser Q-switched by MXene Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> absorber. <b>2019</b> , 12, 085506	22
1242	Computationally Driven Discovery of a Family of Layered LiNiB Polymorphs. <b>2019</b> , 131, 16002-16009	3
1241	Recent progress on synthesis, structure and electrocatalytic applications of MXenes. <b>2019</b> , 17, 100129	23
1240	Auto-programmed heteroarchitecturing: Self-assembling ordered mesoporous carbon between two-dimensional Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene layers. <b>2019</b> , 65, 103991	38
1239	2D Stacks of MXene Ti <sub>3</sub> C <sub>2</sub> and 1T-Phase WS <sub>2</sub> with Enhanced Capacitive Behavior. <b>2019</b> , 6, 3982-3986	16
1238	Preparation of Pt/(Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> )-(MWCNTs) <sup>1</sup> - electrocatalysts via a facile and scalable solvothermal strategy for high-efficiency methanol oxidation. <b>2019</b> , 585, 117181	10
1237	XPS of cold pressed multilayered and freestanding delaminated 2D thin films of Mo <sub>2</sub> TiC <sub>2</sub> T <sub>z</sub> and Mo <sub>2</sub> Ti <sub>2</sub> C <sub>3</sub> T <sub>z</sub> (MXenes). <b>2019</b> , 494, 1138-1147	28
1236	Formation of new MXene film using spinning coating method with DMSO solution and its application in advanced memristive device. <b>2019</b> , 45, 19467-19472	20

1235	Electrocatalytic/photocatalytic properties and aqueous media applications of 2D transition metal carbides (MXenes). <b>2019</b> , 23, 100760	23
1234	Dual Bond Enhanced Multidimensional Constructed Composite Silicon Anode for High-Performance Lithium Ion Batteries. <b>2019</b> , 13, 8854-8864	60
1233	Recent progress in the electrochemical ammonia synthesis under ambient conditions. <b>2019</b> , 1, 100011	105
1232	Beyond Graphene: Chemistry of Group 14 Graphene Analogues: Silicene, Germanene, and Stanene. <b>2019</b> , 13, 8566-8576	56
1231	Nafion-stabilized two-dimensional transition metal carbide (Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene) as a high-performance electrochemical sensor for neurotransmitter. <b>2019</b> , 79, 338-344	55
1230	Edge Capping of 2D-MXene Sheets with Polyanionic Salts To Mitigate Oxidation in Aqueous Colloidal Suspensions. <b>2019</b> , 131, 12785-12790	18
1229	Theoretical prediction on the stability, electronic structure, room and elevated temperature properties of a new MAB phase Mo <sub>2</sub> AlB <sub>2</sub> . <b>2019</b> , 35, 2926-2934	7
1228	Two-Dimensional TiCT MXene Membranes as Nanofluidic Osmotic Power Generators. <b>2019</b> , 13, 8917-8925	117
1227	Sandwich-Like Ultrathin TiS <sub>2</sub> Nanosheets Confined within N, S Codoped Porous Carbon as an Effective Polysulfide Promoter in Lithium-Sulfur Batteries. <b>2019</b> , 9, 1901872	119
1226	Highly fluorescent TiC MXene quantum dots for macrophage labeling and Cu ion sensing. <b>2019</b> , 11, 14123-14133	32
1225	Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXene)-Silicon Heterojunction for Efficient Photovoltaic Cells. <b>2019</b> , 9, 1901063	46
1224	TiC MXene as a new nanofiller for robust and conductive elastomer composites. <b>2019</b> , 11, 14712-14719	23
1223	Potential Applications of Heterostructures of TMDs with MXenes in Sodium-Ion and Na-O Batteries. <b>2019</b> , 19, 5577-5586	42
1222	Edge Capping of 2D-MXene Sheets with Polyanionic Salts To Mitigate Oxidation in Aqueous Colloidal Suspensions. <b>2019</b> , 58, 12655-12660	119
1221	Ti <sub>3</sub> C <sub>2</sub> nanosheets modified Zr-MOFs with Schottky junction for boosting photocatalytic HER performance. <b>2019</b> , 188, 750-759	23
1220	Systematic investigations of the electron, phonon and elastic properties of monolayer MC (M = V, Nb, Ta) by first-principles calculations. <b>2019</b> , 31, 405703	8
1219	Electromagnetic Functions of Patterned 2D Materials for Micro/Nano Devices Covering GHz, THz, and Optical Frequency. <b>2019</b> , 7, 1900689	64
1218	Interfacial design of sandwich-like CoFe@Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> composites as high efficient microwave absorption materials. <b>2019</b> , 494, 540-550	50

1217	Effect of Cationic Exchange on the Hydration and Swelling Behavior of Ti <sub>3</sub> C <sub>2</sub> T <sub>z</sub> MXenes. <b>2019</b> , 123, 20044-20050	50
1216	Bioinspired Interlocked Structure-Induced High Deformability for Two-Dimensional Titanium Carbide (MXene)/Natural Microcapsule-Based Flexible Pressure Sensors. <b>2019</b> , 13, 9139-9147	192
1215	Few-Layer Mxene Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (T=F, O, Or OH) for Robust Pulse Generation in a Compact Er-Doped Fiber Laser. <b>2019</b> , 5, 1233-1238	39
1214	TiC/CuO heterostructure based signal-off photoelectrochemical sensor for high sensitivity detection of glucose. <b>2019</b> , 142, 111535	44
1213	Conductive MXene Nanocomposite Organohydrogel for Flexible, Healable, Low-Temperature Tolerant Strain Sensors. <b>2019</b> , 29, 1904507	324
1212	Emerging Two-Dimensional Nanomaterials for Cancer Therapy. <b>2019</b> , 20, 2417-2433	15
1211	Two-dimensional MXene membrane for ethanol dehydration. <b>2019</b> , 590, 117300	44
1210	Synthesis of an Ag <sub>2</sub> WO <sub>4</sub> /Ti <sub>3</sub> C <sub>2</sub> Schottky composite by electrostatic traction and its photocatalytic activity. <b>2019</b> , 45, 22298-22307	47
1209	Intriguing electronic and optical properties of M <sub>2</sub> CX <sub>2</sub> (M = Mo, W; X = O, F) MXenes and their van der Waals heterostructures. <b>2019</b> , 731, 136614	2
1208	Ultra-light, high flexible and efficient CNTs/Ti <sub>3</sub> C <sub>2</sub> -sodium alginate foam for electromagnetic absorption application. <b>2019</b> , 35, 2859-2867	30
1207	Tin+1C <sub>n</sub> MXenes with fully saturated and thermally stable Cl terminations. <b>2019</b> , 1, 3680-3685	49
1206	Synthesis of (VSc)AlC i-MAX phase and VC MXene scrolls. <b>2019</b> , 11, 14720-14726	21
1205	Sodium-ion battery anodes: Status and future trends. <b>2019</b> , 1, 100012	116
1204	Flexible Graphene-, Graphene-Oxide-, and Carbon-Nanotube-Based Supercapacitors and Batteries. <b>2019</b> , 531, 1800507	19
1203	A Critical Review on Energy Conversion and Environmental Remediation of Photocatalysts with Remodeling Crystal Lattice, Surface, and Interface. <b>2019</b> , 13, 9811-9840	196
1202	Synergistic Effects between MXenes and Ni Chains in Flexible and Ultrathin Electromagnetic Interference Shielding Films. <b>2019</b> , 6, 1900961	37
1201	Computationally Driven Discovery of a Family of Layered LiNiB Polymorphs. <b>2019</b> , 58, 15855-15862	13
1200	Synthesis, Characterization, and Properties of Graphene Analogs of 2D Material. <b>2019</b> , 91-143	7

1199	Synergistic Electrocatalytic Nitrogen Reduction Enabled by Confinement of Nanosized Au Particles onto a Two-Dimensional TiC Substrate. <b>2019</b> , 11, 25758-25765	62
1198	Exfoliation of Ti <sub>2</sub> C and Ti <sub>3</sub> C <sub>2</sub> MXenes from bulk trigonal phases of titanium carbide: A theoretical prediction. <b>2019</b> , 299, 113657	13
1197	Rapid preparation, thermal stability and electromagnetic interference shielding properties of two-dimensional Ti <sub>3</sub> C <sub>2</sub> MXene. <b>2019</b> , 45, 19902-19909	46
1196	Ti <sub>3</sub> C <sub>2</sub> MXene nanosheet-based capacitance immunoassay with tyramine-enzyme repeats to detect prostate-specific antigen on interdigitated micro-comb electrode. <b>2019</b> , 319, 375-381	50
1195	Properties of two-dimensional Ti <sub>3</sub> C <sub>2</sub> MXene/thermoplastic polyurethane nanocomposites with effective reinforcement via melt blending. <b>2019</b> , 181, 107710	79
1194	Strand displacement dual amplification miRNAs strategy with FRET between NaYF <sub>4</sub> :Yb,Tm/Er upconversion nanoparticles and Ti <sub>3</sub> C <sub>2</sub> nanosheets. <b>2019</b> , 297, 126751	20
1193	A hierarchically porous and hydrophilic 3D nickel/iron/MXene electrode for accelerating oxygen and hydrogen evolution at high current densities. <b>2019</b> , 63, 103880	149
1192	Novel two-dimensional Ti <sub>3</sub> C <sub>2</sub> TX/Ni-spheres hybrids with enhanced microwave absorption properties. <b>2019</b> , 45, 22880-22888	37
1191	The rationale and emergence of electroconductive biomaterial scaffolds in cardiac tissue engineering. <b>2019</b> , 3, 041501	47
1190	Surface-Modified Metallic Ti <sub>3</sub> C <sub>2</sub> TX MXene as Electron Transport Layer for Planar Heterojunction Perovskite Solar Cells. <b>2019</b> , 29, 1905694	67
1189	MXene-Reinforced Cellulose Nanofibril Inks for 3D-Printed Smart Fibres and Textiles. <b>2019</b> , 29, 1905898	107
1188	Fast Gelation of Ti <sub>3</sub> C <sub>2</sub> TX MXene Initiated by Metal Ions. <i>Advanced Materials</i> , <b>2019</b> , 31, e1902432	24 193
1187	Vertically Aligned Janus MXene-Based Aerogels for Solar Desalination with High Efficiency and Salt Resistance. <b>2019</b> , 13, 13196-13207	138
1186	Ti <sub>3</sub> C <sub>2</sub> TX MXene-graphene composite films for wearable strain sensors featured with high sensitivity and large range of linear response. <b>2019</b> , 66, 104134	74
1185	Vapor Deposition Red Phosphorus to Prepare Nitrogen-Doped Ti <sub>3</sub> C <sub>2</sub> TX MXenes Composites for Lithium-Ion Batteries. <b>2019</b> , 10, 6446-6454	29
1184	Interrogating the impact of onion-like carbons on the supercapacitive properties of MXene (Ti <sub>2</sub> C <sub>2</sub> TX). <b>2019</b> , 126, 134301	15
1183	Van der Waals heterostructures of blue phosphorene and scandium-based MXenes monolayers. <b>2019</b> , 126, 143101	6
1182	Radiation Stability of Ti <sub>2</sub> InC (M <sub>2</sub> AX) Nanolaminates Under He Ions Irradiation [Evaluation Through STEM microscopy. <b>2019</b> , 25, 1624-1625	1

1181	Ti3C2Tx MXene and polyoxometalate nanohybrid embedded with polypyrrole: Ultra-sensitive platform for the detection of osteopontin. <b>2019</b> , 498, 143889	46
1180	CsPbBr Perovskite Nanocrystal Grown on MXene Nanosheets for Enhanced Photoelectric Detection and Photocatalytic CO Reduction. <b>2019</b> , 10, 6590-6597	155
1179	Sculpting Liquids with Two-Dimensional Materials: The Assembly of TiCT MXene Sheets at Liquid-Liquid Interfaces. <b>2019</b> , 13, 12385-12392	30
1178	Oxygen-terminated BiXenes and derived single atom catalysts for the hydrogen evolution reaction. <b>2019</b> , 378, 97-103	22
1177	Elucidating Ultrafast Molecular Permeation through Well-Defined 2D Nanochannels of Lamellar Membranes. <b>2019</b> , 131, 18695-18700	10
1176	Flexible 3D Porous MXene Foam for High-Performance Lithium-Ion Batteries. <b>2019</b> , 15, e1904293	96
1175	Manipulating photocatalytic pathway and activity of ternary Cu2O/(001)TiO2@Ti3C2Tx catalysts for H2 evolution: Effect of surface coverage. <b>2019</b> , 44, 29975-29985	29
1174	Flexible TiCT/PEDOT:PSS films with outstanding volumetric capacitance for asymmetric supercapacitors. <b>2019</b> , 48, 1747-1756	69
1173	A flexible pressure sensor based on an MXene textile network structure. <b>2019</b> , 7, 1022-1027	109
1172	Two-dimensional Au2B: Robust non-magnetic metallicity independent of the native defects, strain and functional groups. <b>2019</b> , 127, 47002	0
1171	Introduction to 2D Transition Metal Carbides and Nitrides (MXenes). <b>2019</b> , 3-12	26
1170	Electronic Properties and Applications of MXenes from Ab Initio Calculations Perspective. <b>2019</b> , 255-289	4
1169	Electronic and Mechanical Properties of MXenes Derived from Single-Flake Measurements. <b>2019</b> , 301-325	5
1168	Optical Properties of MXenes. <b>2019</b> , 327-346	7
1167	The Mn+1AXn Phases: The Precursors for MXenes. <b>2019</b> , 15-35	5
1166	MXene Materials as Electrodes for Lithium-Sulfur Batteries. <b>2019</b> , 381-398	2
1165	Non-MAX Phase Precursors for MXenes. <b>2019</b> , 53-68	5
1164	Top-Down MXene Synthesis (Selective Etching). <b>2019</b> , 69-87	6

1163	Effect of Synthesis Methods on the Structure and Defects of Two-Dimensional MXenes. <b>2019</b> , 111-123	1
1162	First-principles study on the mechanical properties of M <sub>2</sub> CT <sub>2</sub> (M = Ti, Zr, Hf; T = O, F, OH) MXenes. <b>2019</b> , 30, 1	2
1161	Inhibition of AlF <sub>3</sub> ·3H <sub>2</sub> O Impurity Formation in Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene Synthesis under a Unique CoF <sub>x</sub> /HCl Etching Environment. <b>2019</b> , 2, 8145-8152	17
1160	Two-dimensional MXene nanosheets (types TiCT and TiCT) as new ion-to-electron transducers in solid-contact calcium ion-selective electrodes. <b>2019</b> , 186, 750	18
1159	Selective Lithiation-Expansion-Microexplosion Synthesis of Two-Dimensional Fluoride-Free Mxene. <b>2019</b> , 1, 628-632	27
1158	Highly Stable, Transparent, and Conductive Electrode of Solution-Processed Silver Nanowire-Mxene for Flexible Alternating-Current Electroluminescent Devices. <b>2019</b> , 58, 21485-21492	21
1157	Band Structure Modifications in Beyond Graphene Materials. <b>2019</b> , 341-372	
1156	Reviewing MXenes for Plasmonic Applications: Beyond Graphene. <b>2019</b> ,	1
1155	Titanium Carbide MXene as NH <sub>3</sub> Sensor: Realistic First-Principles Study. <b>2019</b> , 123, 29794-29803	31
1154	Ab initio study of the effective Coulomb interactions and Stoner ferromagnetism in M <sub>2</sub> C and M <sub>2</sub> CO <sub>2</sub> MXenes (M=Sc,Ti,V,Cr,Fe,Zr,Nb,Mo,Hf,Ta). <b>2019</b> , 100,	8
1153	Ultrathin 2D Nanomaterials for Electromagnetic Interference Shielding. <b>2019</b> , 6, 1901454	45
1152	Rational Design of Flexible Two-Dimensional MXenes with Multiple Functionalities. <b>2019</b> , 119, 11980-12031	137
1151	Heating of TiCT MXene/polymer composites in response to Radio Frequency fields. <b>2019</b> , 9, 16489	23
1150	A new single-layer structure of MBene family: TiB. <b>2019</b> , 31, 505401	11
1149	MIL-100(Fe)/TiC MXene as a Schottky Catalyst with Enhanced Photocatalytic Oxidation for Nitrogen Fixation Activities. <b>2019</b> , 11, 44249-44262	57
1148	Cytotoxicity Assessment of Ti-Al-C Based MAX Phases and TiCT MXenes on Human Fibroblasts and Cervical Cancer Cells. <b>2019</b> , 5, 6557-6569	32
1147	Alkali Metal Arenides as a Universal Synthetic Tool for Layered 2D Germanene Modification. <b>2019</b> , 131, 16669-16674	
1146	2020 Roadmap on two-dimensional nanomaterials for environmental catalysis. <b>2019</b> , 30, 2065-2088	72



1145	Synthesis and Electronic Structure of a 3D Crystalline Stack of MXene-Like Sheets. <b>2019</b> , 31, 9788-9796	12
1144	Preparation of a Highly Sensitive and Stretchable Strain Sensor of MXene/Silver Nanocomposite-Based Yarn and Wearable Applications. <b>2019</b> , 11, 45930-45938	73
1143	Prospects of Nanotechnology and Design of Materials Based on Refractory Compounds. <b>2019</b> , 60, 583-589	4
1142	Photodynamic Therapy Based on Graphene and MXene in Cancer Theranostics. <b>2019</b> , 7, 295	56
1141	Beyond Gold: Spin-Coated Ti C -Based MXene Photodetectors. <i>Advanced Materials</i> , <b>2019</b> , 31, e1903271	24 73
1140	Alkali Metal Arenides as a Universal Synthetic Tool for Layered 2D Germanene Modification. <b>2019</b> , 58, 16517-16522	10
1139	Carbon Cloth-based Hybrid Materials as Flexible Electrochemical Supercapacitors. <b>2019</b> , 6, 5771-5786	73
1138	Ultrafine Pt Nanoparticle-Decorated 3D Hybrid Architectures Built from Reduced Graphene Oxide and MXene Nanosheets for Methanol Oxidation. <b>2019</b> , 31, 9277-9287	74
1137	First-Principles Calculations of TiB MBene Monolayers for Hydrogen Evolution. <b>2019</b> , 2, 7220-7229	17
1136	Effects of biaxial strain and functional groups on SiC/ti3C2 heterostructure: a first principle calculation. <b>2019</b> , 6, 125070	
1135	MXene-Bonded Flexible Hard Carbon Film as Anode for Stable Na/K-Ion Storage. <b>2019</b> , 29, 1906282	118
1134	Self-Assembly of MXene-Surfactants at Liquid-Liquid Interfaces: From Structured Liquids to 3D Aerogels. <b>2019</b> , 131, 18339-18344	8
1133	Self-Assembly of MXene-Surfactants at Liquid-Liquid Interfaces: From Structured Liquids to 3D Aerogels. <b>2019</b> , 58, 18171-18176	95
1132	Elucidating Ultrafast Molecular Permeation through Well-Defined 2D Nanochannels of Lamellar Membranes. <b>2019</b> , 58, 18524-18529	49
1131	The Contacts of the Monolayer Semiconductor C2N with 2D Metal Electrodes. <b>2019</b> , 2, 1800161	8
1130	Novel Synthesis of Red Phosphorus Nanodot/TiCT MXenes from Low-Cost TiSiC MAX Phases for Superior Lithium- and Sodium-Ion Batteries. <b>2019</b> , 11, 42086-42093	30
1129	Recent progress on the prediction of two-dimensional materials using CALYPSO. <b>2019</b> , 28, 107306	11
1128	A Wireless Parylene-Based Cardiovascular Pressure Sensor with Mxene Film. <b>2019</b> ,	1

1127	The Rise of MXenes. <b>2019</b> , 13, 8491-8494	597
1126	Solution-processable Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> nanosheets as an efficient hole transport layer for high-performance and stable polymer solar cells. <b>2019</b> , 7, 11549-11558	36
1125	Nanostructure of Cr <sub>2</sub> CO <sub>2</sub> MXene Supported Single Metal Atom as an Efficient Bifunctional Electrocatalyst for Overall Water Splitting. <b>2019</b> , 2, 6851-6859	41
1124	High-Tactile Sensitivity of Piezoresistive Sensors With a Micro-Crack Structure Induced by Thin Film Tension. <b>2019</b> , 40, 1519-1521	13
1123	The Synthesis, Structure, Morphology Characterizations and Evolution Mechanisms of Nanosized Titanium Carbides and Their Further Applications. <b>2019</b> , 9,	25
1122	Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene characterization produced from SHS-ground Ti <sub>3</sub> AlC <sub>2</sub> . <b>2019</b> , 183, 108143	20
1121	Unified description of the electronic structure of M <sub>2</sub> AC nanolamellar carbides. <b>2019</b> , 100,	1
1120	Large out-of-plane piezoelectricity of oxygen functionalized MXenes for ultrathin piezoelectric cantilevers and diaphragms. <b>2019</b> , 65, 104058	24
1119	Dehybridization effect in improved dehydrogenation of LiAlH <sub>4</sub> by doping with two-dimensional Ti <sub>3</sub> C <sub>2</sub> . <b>2019</b> , 8, 100054	15
1118	Friction-Induced Enhancements for Photocatalytic Degradation of MoS <sub>2</sub> @Ti <sub>3</sub> C <sub>2</sub> Nanohybrid. <b>2019</b> , 58, 18141-18148	19
1117	One-step synthesis of few-layer niobium carbide MXene as a promising anode material for high-rate lithium ion batteries. <b>2019</b> , 48, 14433-14439	26
1116	Ultrathin and Flexible CNTs/MXene/Cellulose Nanofibrils Composite Paper for Electromagnetic Interference Shielding. <b>2019</b> , 11, 72	147
1115	Novel light-driven and electro-driven polyethylene glycol/two-dimensional MXene form-stable phase change material with enhanced thermal conductivity and electrical conductivity for thermal energy storage. <b>2019</b> , 177, 107372	81
1114	A Novel Anode in High-Performance Lithium-Ion Battery Based on Advanced Nanomaterials and Nanofabrication Technology. <b>2019</b> ,	1
1113	Recent advances in MXene-based electrochemical sensors and biosensors. <b>2019</b> , 120, 115643	111
1112	Bifunctional N-CoSe <sub>2</sub> /3D-MXene as Highly Efficient and Durable Cathode for Rechargeable Zn/Air Battery. <b>2019</b> , 1, 432-439	49
1111	Self-Crosslinked MXene (TiCT) Membranes with Good Antiswelling Property for Monovalent Metal Ion Exclusion. <b>2019</b> , 13, 10535-10544	126
1110	A general way to fabricate transition metal dichalcogenide/oxide-sandwiched MXene nanosheets as flexible film anodes for high-performance lithium storage. <b>2019</b> , 3, 2577-2582	18

1109	Inkjet-printed MXene micro-scale devices for integrated broadband ultrafast photonics. <b>2019</b> , 3,	51
1108	MXene-engineered lithium-sulfur batteries. <b>2019</b> , 7, 22730-22743	96
1107	Single molybdenum atom anchored on 2D TiNO MXene as a promising electrocatalyst for N fixation. <b>2019</b> , 11, 18132-18141	36
1106	Superior Thermoelectric Performance of Ordered Double Transition Metal MXenes: CrTiCT (T = -OH or -F). <b>2019</b> , 10, 5721-5728	27
1105	Flexible Anti-Biofouling MXene/Cellulose Fibrous Membrane for Sustainable Solar-Driven Water Purification. <b>2019</b> , 11, 36589-36597	106
1104	2D MXenes as Co-catalysts in Photocatalysis: Synthetic Methods. <b>2019</b> , 11, 79	92
1103	A 2D transition metal carbide MXene-based SPR biosensor for ultrasensitive carcinoembryonic antigen detection. <b>2019</b> , 144, 111697	75
1102	Recent Advances in Graphene-like 2D Materials for Spintronics Applications. <b>2019</b> , 31, 8260-8285	60
1101	Water Transport and Thermomechanical Properties of TiCT MXene Epoxy Nanocomposites. <b>2019</b> , 11, 39143-39149	20
1100	Single Site Cobalt Substitution in 2D Molybdenum Carbide (MXene) Enhances Catalytic Activity in the Hydrogen Evolution Reaction. <b>2019</b> , 141, 17809-17816	144
1099	Emerging 2D material-based nanocarrier for cancer therapy beyond graphene. <b>2019</b> , 400, 213041	54
1098	Current state of the art on tailoring the MXene composition, structure, and surface chemistry. <b>2019</b> , 23, 100774	48
1097	Electrochemical Actuators Based on Two-Dimensional TiCT (MXene). <b>2019</b> , 19, 7443-7448	53
1096	Catalytic Effect on CO Electroreduction by Hydroxyl-Terminated Two-Dimensional MXenes. <b>2019</b> , 11, 36571-36579	52
1095	Plasma-modified TiCT/CdS hybrids with oxygen-containing groups for high-efficiency photocatalytic hydrogen production. <b>2019</b> , 11, 18797-18805	91
1094	A stretchable high performance all-in-one fiber supercapacitor. <b>2019</b> , 440, 227150	25
1093	Boosting Performance of Na-S Batteries Using Sulfur-Doped TiCT MXene Nanosheets with a Strong Affinity to Sodium Polysulfides. <b>2019</b> , 13, 11500-11509	134
1092	MXene-Based Co, N-Codoped Porous Carbon Nanosheets Regulating Polysulfides for High-Performance Lithium-Sulfur Batteries. <b>2019</b> , 11, 38654-38662	35

1091	Synthesis of MAX phases Nb <sub>2</sub> CuC and Ti <sub>2</sub> (Al <sub>0.1</sub> Cu <sub>0.9</sub> )N by A-site replacement reaction in molten salts. <b>2019</b> , 7, 510-516	27
1090	Prediction of 2D Li <sub>2</sub> X (X=Se, Te) monolayer semiconductors by first principles calculations. <b>2019</b> , 383, 125992	6
1089	Theoretical Analysis, Synthesis, and Characterization of 2D W <sub>1.33</sub> C (MXene) with Ordered Vacancies. <b>2019</b> , 2, 6209-6219	19
1088	Colloidal Gelation in Liquid Metals Enables Functional Nanocomposites of 2D Metal Carbides (MXenes) and Lightweight Metals. <b>2019</b> , 13, 12415-12424	31
1087	New application of MXene in polymer composites toward remarkable anti-dripping performance for flame retardancy. <b>2019</b> , 127, 105649	35
1086	Introduction to MXenes: synthesis and characteristics. <b>2019</b> , 14, 100191	38
1085	The Cr impurity effect on the optical properties of the Ti <sub>2</sub> N graphene-like materials: a DFT study. <b>2019</b> , 9, 289-298	1
1084	Large-scale production of simultaneously exfoliated and Functionalized Mxenes as promising flame retardant for polyurethane. <b>2019</b> , 179, 107486	62
1083	In-situ synthesis of MXene/ZnCo <sub>2</sub> O <sub>4</sub> nanocomposite with enhanced catalytic activity on thermal decomposition of ammonium perchlorate. <b>2019</b> , 279, 120947	10
1082	Three-Dimensional Porous Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene/Graphene Hybrid Films for Glucose Biosensing. <b>2019</b> , 2, 6537-6545	57
1081	Near-infrared light-responsive hydrogels peroxide-decorated MXene-initiated polymerization. <b>2019</b> , 10, 10765-10771	37
1080	Carbon-Coated SnO <sub>2</sub> /Ti <sub>3</sub> C <sub>2</sub> Composites with Enhanced Lithium Storage Performance. <b>2019</b> , 2019, 1-10	
1079	High-Performance Humidity Sensor Based on Urchin-Like Composite of TiC MXene-Derived TiO Nanowires. <b>2019</b> , 11, 38116-38125	79
1078	Eosin Y-sensitized partially oxidized Ti <sub>3</sub> C <sub>2</sub> MXene for photocatalytic hydrogen evolution. <b>2019</b> , 9, 310-315	53
1077	Hybrid material passivation approach to stabilize the silicon nanowires in aqueous electrolyte for high-energy efficient supercapacitor. <b>2019</b> , 362, 609-618	32
1076	Freestanding nitrogen-doped d-Ti <sub>3</sub> C <sub>2</sub> /reduced graphene oxide hybrid films for high performance supercapacitors. <b>2019</b> , 300, 349-356	39
1075	VC and VMnC nanosheets with robust mechanical and thermal properties as promising materials for Li-ion batteries. <b>2019</b> , 21, 1606-1613	6
1074	Catalytic decomposition of hydrous hydrazine for hydrogen production. <b>2019</b> , 3, 343-365	40

1073	Heterostructures of NiCoAl layered double hydroxide assembled on V4C3 MXene for high-energy hybrid supercapacitors. <b>2019</b> , 7, 2291-2300	93
1072	CrTiC-based double MXenes: novel 2D bipolar antiferromagnetic semiconductor with gate-controllable spin orientation toward antiferromagnetic spintronics. <b>2018</b> , 11, 356-364	77
1071	Configurable multi-state non-volatile memory behaviors in TiC nanosheets. <b>2019</b> , 11, 7102-7110	45
1070	Review of supercapacitors: Materials and devices. <b>2019</b> , 21, 801-825	587
1069	Highly sensitive, reliable and flexible piezoresistive pressure sensors featuring polyurethane sponge coated with MXene sheets. <b>2019</b> , 542, 54-62	134
1068	Boosting the Yield of MXene 2D Sheets via a Facile Hydrothermal-Assisted Intercalation. <b>2019</b> , 11, 8443-8452	95
1067	Two-Dimensional Hydroxyl-Functionalized and Carbon-Deficient Scandium Carbide, ScC OH, a Direct Band Gap Semiconductor. <b>2019</b> , 13, 1195-1203	24
1066	Magnesium-Ion Storage Capability of MXenes. <b>2019</b> , 2, 1572-1578	53
1065	Control of MXenes' electronic properties through termination and intercalation. <b>2019</b> , 10, 522	380
1064	Combined Theoretical and Experimental Studies of Sodium Battery Materials. <b>2019</b> , 19, 792	8
1063	Atomic Sulfur Covalently Engineered Interlayers of Ti3C2 MXene for Ultra-Fast Sodium-Ion Storage by Enhanced Pseudocapacitance. <b>2019</b> , 29, 1808107	138
1062	2D Early Transition Metal Carbides (MXenes) for Catalysis. <b>2019</b> , 15, e1804736	134
1061	Electronic and optical characterization of 2D TiC and NbC (MXene) thin films. <b>2019</b> , 31, 165301	46
1060	A facile approach for coating Ti3C2Tx on cotton fabric for electromagnetic wave shielding. <b>2019</b> , 26, 2833-2847	38
1059	Engineered Exosome-Mediated Near-Infrared-II Region VC Quantum Dot Delivery for Nucleus-Target Low-Temperature Photothermal Therapy. <b>2019</b> , 13, 1499-1510	147
1058	Oxygen-Functionalized Ultrathin Ti C T MXene for Enhanced Electrocatalytic Hydrogen Evolution. <b>2019</b> , 12, 1368-1373	104
1057	Titanium carbide MXene: Synthesis, electrical and optical properties and their applications in sensors and energy storage devices. <b>2019</b> , 9, 184798041882447	25
1056	Recent advances in MXenes: From fundamentals to applications. <b>2019</b> , 23, 164-178	140

1055	Ultrathin Ti <sub>3</sub> C <sub>2</sub> nanosheets based off-on fluorescent nanoprobe for rapid and sensitive detection of HPV infection. <b>2019</b> , 286, 222-229	58
1054	Role of Long-Range Dispersion Forces in Modeling of MXenes as Battery Electrode Materials. <b>2019</b> , 123, 4064-4071	5
1053	Thermal stability of two-dimensional titanium carbides Ti <sub>n+1</sub> C <sub>n</sub> (MXenes) from classical molecular dynamics simulations. <b>2019</b> , 9, 203-208	9
1052	The Influence of Oxygen Concentration during MAX Phases (Ti <sub>3</sub> AlC <sub>3</sub> ) Preparation on the Al <sub>2</sub> O <sub>3</sub> Microparticles Content and Specific Surface Area of Multilayered MXenes (Ti <sub>3</sub> C <sub>2</sub> ). <b>2019</b> , 12,	24
1051	Electrochemical performance of two-dimensional Ti <sub>3</sub> C <sub>2</sub> -Mn <sub>3</sub> O <sub>4</sub> nanocomposites and carbonized iron cations for hybrid supercapacitor electrodes. <b>2019</b> , 301, 487-499	38
1050	High Sensitivity Surface Plasmon Resonance Sensor Based on Two-Dimensional MXene and Transition Metal Dichalcogenide: A Theoretical Study. <b>2019</b> , 9,	65
1049	2D carbide MXene Ti <sub>2</sub> CTx as a novel high-performance electromagnetic interference shielding material. <b>2019</b> , 146, 210-217	92
1048	Two-dimensional materials for advanced Li-S batteries. <b>2019</b> , 22, 284-310	69
1047	SnO <sub>2</sub> /Ti <sub>3</sub> C <sub>2</sub> MXene electron transport layers for perovskite solar cells. <b>2019</b> , 7, 5635-5642	111
1046	Microwave-assisted synthesis of three-dimensional MXene derived metal oxide/carbon nanotube/iron hybrids for enhanced lithium-ions storage. <b>2019</b> , 835, 205-211	13
1045	MXene-supported CoO quantum dots for superior lithium storage and oxygen evolution activities. <b>2019</b> , 55, 1237-1240	69
1044	Preparation of MoS <sub>2</sub> /Ti <sub>3</sub> C <sub>2</sub> Tx composite as anode material with enhanced sodium/lithium storage performance. <b>2019</b> , 6, 117-125	34
1043	Duplex printing of all-in-one integrated electronic devices for temperature monitoring. <b>2019</b> , 7, 972-978	27
1042	A 3D flower-like VO <sub>2</sub> /MXene hybrid architecture with superior anode performance for sodium ion batteries. <b>2019</b> , 7, 1315-1322	63
1041	Half-metal state of a TiC monolayer by asymmetric surface decoration. <b>2019</b> , 21, 3318-3326	14
1040	A new paradigm of ultrathin 2D nanomaterial adsorbents in aqueous media: graphene and GO, MoS <sub>2</sub> , MXenes, and 2D MOFs. <b>2019</b> , 7, 16598-16621	57
1039	Hydrochromic full-color MXene quantum dots through hydrogen bonding toward ultrahigh-efficiency white light-emitting diodes. <b>2019</b> , 16, 90-101	50
1038	2D-enabled membranes: materials and beyond. <b>2019</b> , 1,	18

1037	Nonlinear Few-Layer MXene-Assisted All-Optical Wavelength Conversion at Telecommunication Band. <b>2019</b> , 7, 1801777	64
1036	Highly Stretchable and Self-Healable MXene/Polyvinyl Alcohol Hydrogel Electrode for Wearable Capacitive Electronic Skin. <b>2019</b> , 5, 1900285	156
1035	Niobium carbide/reduced graphene oxide hybrid porous aerogel as high capacity and long-life anode material for Li-ion batteries. <b>2019</b> , 43, 4995-5003	26
1034	Engineering Two-Dimensional Materials and Their Heterostructures as High-Performance Electrocatalysts. <b>2019</b> , 2, 373-394	47
1033	A flexible TiCT (MXene)/paper membrane for efficient oil/water separation.. <b>2019</b> , 9, 16296-16304	31
1032	A Robust, Freestanding MXene-Sulfur Conductive Paper for Long-Lifetime LiB Batteries. <b>2019</b> , 29, 1901907	131
1031	Revealing the Pseudo-Intercalation Charge Storage Mechanism of MXenes in Acidic Electrolyte. <b>2019</b> , 29, 1902953	101
1030	Steady microwave absorption behavior of two-dimensional metal carbide MXene and Polyaniline composite in X-band. <b>2019</b> , 488, 165364	37
1029	Three-dimensional carambola-like MXene/polypyrrole composite produced by one-step co-electrodeposition method for electrochemical energy storage. <b>2019</b> , 318, 820-827	43
1028	Ti3C2 MXene nanosheets toward high-performance corrosion inhibitor for epoxy coating. <b>2019</b> , 135, 156-167	76
1027	Organ-like Ti3C2 Mxenes/polyaniline composites by chemical grafting as high-performance supercapacitors. <b>2019</b> , 847, 113203	19
1026	ZnFe2O4 nanoparticles decorated Ti3C2Tx nanosheet as anode materials for enhanced lithium storage. <b>2019</b> , 253, 162-165	7
1025	MXenes for Plasmonic Photodetection. <i>Advanced Materials</i> , <b>2019</b> , 31, e1807658	24 90
1024	Promising TiCT MXene/Ni Chain Hybrid with Excellent Electromagnetic Wave Absorption and Shielding Capacity. <b>2019</b> , 11, 25399-25409	183
1023	Plasmonic TiCT MXene Enables Highly Efficient Photothermal Conversion for Healable and Transparent Wearable Device. <b>2019</b> , 13, 8124-8134	132
1022	Topochemical synthesis of phase-pure MoAlB through staging mechanism. <b>2019</b> , 55, 9295-9298	12
1021	Electrode Materials for High-Performance Sodium-Ion Batteries. <b>2019</b> , 12,	27
1020	Synthesis of novel nanomaterials and their application in efficient removal of radionuclides. <b>2019</b> , 62, 933-967	186

1019	Theoretical Prediction of Catalytic Activity of Ti <sub>2</sub> C MXene as Cathode for LiD <sub>2</sub> Batteries. <b>2019</b> , 123, 17466-17471	25
1018	Plasmonic MXene-based nanocomposites exhibiting photothermal therapeutic effects with lower acute toxicity than pure MXene. <b>2019</b> , 14, 4529-4539	30
1017	Synthesis, structure, properties and applications of MXenes: Current status and perspectives. <b>2019</b> , 45, 18167-18188	177
1016	Horizontal Growth of Lithium on Parallely Aligned MXene Layers towards Dendrite-Free Metallic Lithium Anodes. <i>Advanced Materials</i> , <b>2019</b> , 31, e1901820	24 112
1015	Enhanced Thermal Conductivity of Epoxy Composites Filled with 2D Transition Metal Carbides (MXenes) with Ultralow Loading. <b>2019</b> , 9, 9135	50
1014	Electronic structures, bonding natures and defect processes in Sn-based 211 MAX phases. <b>2019</b> , 168, 203-212	10
1013	Theoretical Screening of Single Transition Metal Atoms Embedded in MXene Defects as Superior Electrocatalyst of Nitrogen Reduction Reaction. <b>2019</b> , 3, 1900337	124
1012	TiC Sheets with an Adjustable Surface and Feature Sizes to Regulate the Chemical Stability. <b>2019</b> , 58, 9397-9403	15
1011	Designed construction of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> @PPY composites with enhanced microwave absorption performance. <b>2019</b> , 802, 445-457	27
1010	Antioxidants Unlock Shelf-Stable Ti <sub>3</sub> C <sub>2</sub> T (MXene) Nanosheet Dispersions. <b>2019</b> , 1, 513-526	210
1009	Origin of theoretical pseudocapacitance of two-dimensional supercapacitor electrodes Ti <sub>3</sub> C <sub>2</sub> T <sub>2</sub> (T = bare, O, S). <b>2019</b> , 7, 16231-16238	15
1008	Identification of High-Performance Single-Atom MXenes Catalysts for Low-Temperature CO Oxidation. <b>2019</b> , 2, 1900006	15
1007	Two-Dimensional Vanadium Carbide MXene for Gas Sensors with Ultrahigh Sensitivity Toward Nonpolar Gases. <b>2019</b> ,	135
1006	Atom-by-atom fabrication with electron beams. <b>2019</b> , 4, 497-507	42
1005	Monolayer triphosphates MP (M = Sn, Ge) with excellent basal catalytic activity for hydrogen evolution reaction. <b>2019</b> , 11, 12210-12219	56
1004	Saturable Absorption in 2D Nanomaterials and Related Photonic Devices. <b>2019</b> , 13, 1800282	67
1003	Influence of sintering environment on the spark plasma sintering of Maxthal 312 (nominally-Ti <sub>3</sub> SiC <sub>2</sub> ) and the role of powder particle size on densification. <b>2019</b> , 801, 208-219	9
1002	Layer-by-layer self-assembly of pillared two-dimensional multilayers. <b>2019</b> , 10, 2558	98



1001	Exploring the catalytic activity of MXenes Mn+1CnO2 for hydrogen evolution. <b>2019</b> , 54, 11378-11389	7
1000	In Situ XANES/XRD Study of the Structural Stability of Two-Dimensional Molybdenum Carbide Mo2CTx: Implications for the Catalytic Activity in the WaterGas Shift Reaction. <b>2019</b> , 31, 4505-4513	48
999	2D MXenes as Perspective Immobilization Platforms for Design of Electrochemical Nanobiosensors. <b>2019</b> , 31, 1833-1844	21
998	Atomic Repartition in MXenes by Electron Probes. <b>2019</b> , 31, 4385-4391	11
997	TiC MXene Modified with Ceramic Oxide and Noble Metal Nanoparticles: Synthesis, Morphostructural Properties, and High Photocatalytic Activity. <b>2019</b> , 58, 7602-7614	43
996	Etching and Exfoliation Properties of Cr2AlC into Cr2CO2 and the Electrocatalytic Performances of 2D Cr2CO2 MXene. <b>2019</b> , 123, 15629-15636	18
995	MXenes: An Introduction of Their Synthesis, Select Properties, and Applications. <b>2019</b> , 1, 656-669	164
994	Deep insights into the exfoliation properties of MAX to MXenes and the hydrogen evolution performances of 2D MXenes. <b>2019</b> , 7, 15862-15870	31
993	Multilayer structured AgNW/WPU-MXene fiber strain sensors with ultrahigh sensitivity and a wide operating range for wearable monitoring and healthcare. <b>2019</b> , 7, 15913-15923	97
992	Fluorine-free Ti3C2Tx as anode materials for Li-ion batteries. <b>2019</b> , 104, 106472	21
991	Superior Kinetic and Cyclic Performance of a 2D Titanium Carbide Incorporated 2LiH + MgB2 Composite toward Highly Reversible Hydrogen Storage. <b>2019</b> , 2, 4853-4864	19
990	Water treatment and environmental remediation applications of two-dimensional metal carbides (MXenes). <b>2019</b> , 30, 80-102	203
989	Dense Charge Accumulation in MXene with a Hydrate-Melt Electrolyte. <b>2019</b> , 31, 5190-5196	29
988	Perfect planar tetra-coordinated MC monolayer: superior anode material for Li-ion battery. <b>2019</b> , 21, 15187-15194	9
987	Multi-Step Topochemical Pathway to Metastable MoAlB and Related Two-Dimensional Nanosheet Heterostructures. <b>2019</b> , 141, 10852-10861	43
986	Two-dimensional Ti3C2Tx@S as cathode for room temperature sodium-sulfur batteries. <b>2019</b> , 25, 5373-5382	19
985	MnO2 nanorods/MXene/CC composite electrode for flexible supercapacitors with enhanced electrochemical performance. <b>2019</b> , 802, 259-268	58
984	Faradaic reactions in capacitive deionization for desalination and ion separation. <b>2019</b> , 7, 15999-16027	85

983	Shape-Adaptable 2D Titanium Carbide (MXene) Heater. <b>2019</b> , 13, 6835-6844	99
982	Fluorine-free Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (T = O, OH) nanosheets (~50–100 nm) for nitrogen fixation under ambient conditions. <b>2019</b> , 7, 14462-14465	50
981	O-Vacancy-line defective Ti <sub>2</sub> CO <sub>2</sub> nanoribbons: novel magnetism, tunable carrier mobility, and magnetic device behaviors. <b>2019</b> , 7, 7745-7759	44
980	Thermal stress-induced all-optical modulation in MXene-coated polarization maintaining fiber. <b>2019</b> , 16, 065107	8
979	Synthesis of sandwich-like structured Sn/SnO <sub>x</sub> @MXene composite through in-situ growth for highly reversible lithium storage. <b>2019</b> , 62, 401-409	154
978	Discovery of hexagonal ternary phase TiInB and its evolution to layered boride TiB. <b>2019</b> , 10, 2284	72
977	Printed supercapacitors: materials, printing and applications. <b>2019</b> , 48, 3229-3264	222
976	Stabilization of 2D graphene, functionalized graphene, and TiCO (MXene) in super-critical CO <sub>2</sub> : a molecular dynamics study. <b>2019</b> , 21, 12968-12976	9
975	Nanoscale Parallel Circuitry Based on Interpenetrating Conductive Assembly for Flexible and High-Power Zinc Ion Battery. <b>2019</b> , 29, 1901336	92
974	Surface Modified MXene-Based Nanocomposites for Electrochemical Energy Conversion and Storage. <b>2019</b> , 15, e1901503	98
973	MXene/Co <sub>3</sub> O <sub>4</sub> composite material: Stable synthesis and its enhanced broadband microwave absorption. <b>2019</b> , 488, 921-930	78
972	Ordered double-M elements MXenes TiMC: Large in-plane stiffness and ferromagnetism. <b>2019</b> , 486, 165280	9
971	Concentric Advancing Front Corrugations and Multiple Ordered Growth of 2D Mo <sub>2</sub> C Crystals. <b>2019</b> , 19, 3097-3102	6
970	Heterostructure engineering of Co-doped MoS <sub>2</sub> coupled with MoCT MXene for enhanced hydrogen evolution in alkaline media. <b>2019</b> , 11, 10992-11000	67
969	Intercalation of Layered Materials from Bulk to 2D. <i>Advanced Materials</i> , <b>2019</b> , 31, e1808213	24 64
968	A New Memristor with 2D Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene Flakes as an Artificial Bio-Synapse. <b>2019</b> , 15, e1900107	90
967	Synthesis and lithium ion storage performance of two-dimensional V <sub>4</sub> C <sub>3</sub> MXene. <b>2019</b> , 373, 203-212	56
966	Nylon-6/TiCT MXene Nanocomposites Synthesized by in Situ Ring Opening Polymerization of ε-Caprolactam and Their Water Transport Properties. <b>2019</b> , 11, 20425-20436	30

965	Interface engineering in the BNNS@Ti <sub>3</sub> C <sub>2</sub> intercalation structure for enhanced electrocatalytic hydrogen evolution. <b>2019</b> , 43, 8613-8619	10
964	A highly flexible and multifunctional strain sensor based on a network-structured MXene/polyurethane mat with ultra-high sensitivity and a broad sensing range. <b>2019</b> , 11, 9949-9957	74
963	Preparation and mechanical performances of carbon fiber reinforced epoxy composites by Mxene nanosheets coating. <b>2019</b> , 30, 10516-10523	8
962	MXene Boosted CoNi-ZIF-67 as Highly Efficient Electrocatalysts for Oxygen Evolution. <b>2019</b> , 9,	42
961	Pseudocapacitive Storage in Nanolayered Ti <sub>2</sub> N <sub>Tx</sub> MXene Using Mg-Ion Electrolyte. <b>2019</b> , 2, 2785-2795	53
960	High Lithium-Ion Storage Performance of Ti <sub>3</sub> SiC <sub>2</sub> MAX by Oxygen Doping. <b>2019</b> , 4, 5319-5321	3
959	Plasmonic Light Illumination Creates a Channel To Achieve Fast Degradation of TiCT Nanosheets. <b>2019</b> , 58, 7285-7294	17
958	Novel MAB phases and insights into their exfoliation into 2D MBenes. <b>2019</b> , 11, 11305-11314	64
957	A simple method for the synthesis of nanosized Ti <sub>3</sub> AlC <sub>2</sub> powder in NaCl/KCl molten salt. <b>2019</b> , 7, 361-367	14
956	Effect of Ti <sub>3</sub> AlC <sub>2</sub> MAX Phase on Structure and Properties of Resultant Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene. <b>2019</b> , 2, 3368-3376	92
955	Monolayer Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> as an Effective Co-catalyst for Enhanced Photocatalytic Hydrogen Production over TiO <sub>2</sub> . <b>2019</b> , 2, 4640-4651	113
954	Computational Discovery and Design of MXenes for Energy Applications: Status, Successes, and Opportunities. <b>2019</b> , 11, 24885-24905	65
953	La- and Mn-Codoped Bismuth Ferrite/TiC MXene Composites for Efficient Photocatalytic Degradation of Congo Red Dye. <b>2019</b> , 4, 8661-8668	57
952	MXene Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> for phase change composite with superior photothermal storage capability. <b>2019</b> , 7, 14319-14327	110
951	Ti-fraction-induced electronic and magnetic transformations in titanium oxide films. <b>2019</b> , 150, 154704	2
950	Strain-engineered robust and Schottky-barrier-free contact in 2D metal/semiconductor heterostructure. <b>2019</b> , 1, 015010	5
949	A critical review of current progress in 3D kidney biomanufacturing: advances, challenges, and recommendations. <b>2019</b> , 5,	18
948	MXene Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> : A Promising Photothermal Conversion Material and Application in All-Optical Modulation and All-Optical Information Loading. <b>2019</b> , 7, 1900060	75

947	Characterization of an AX Compound Derived from Ti <sub>2</sub> SC MAX Phase. <b>2019</b> , 2019, 2312-2317	1
946	Insights into the thermal and chemical stability of multilayered VCT MXene. <b>2019</b> , 11, 10716-10726	65
945	MXene-Contacted Silicon Solar Cells with 11.5% Efficiency. <b>2019</b> , 9, 1900180	117
944	Self-assembled three-dimensional Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> nanosheets network on carbon cloth as flexible electrode for supercapacitors. <b>2019</b> , 485, 1-7	19
943	MoS-Based Photodetectors Powered by Asymmetric Contact Structure with Large Work Function Difference. <b>2019</b> , 11, 34	26
942	Understanding Interlayer Deprotonation of Hydrogen Titanium Oxide for High-Power Electrochemical Energy Storage. <b>2019</b> , 2, 3633-3641	10
941	Crumpled Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXene) nanosheet encapsulated LiMn <sub>2</sub> O <sub>4</sub> for high performance lithium-ion batteries. <b>2019</b> , 309, 362-370	39
940	Growth and stabilization of two-dimensional multiferroics MnI <sub>2</sub> . <b>2019</b> , 6, 085046	2
939	Interface-coupling of CoFe-LDH on MXene as high-performance oxygen evolution catalyst. <b>2019</b> , 12, 453-462	77
938	Exfoliation of Titanium Aluminum Carbide (211 MAX Phase) to Form Nanofibers and Two-Dimensional Nanosheets and Their Application in Aqueous-Phase Cadmium Sequestration. <b>2019</b> , 11, 19156-19166	32
937	Strain-tunable electronic structures and optical properties of semiconducting MXenes. <b>2019</b> , 30, 345205	18
936	A novel high permittivity percolative composite with modified MXene. <b>2019</b> , 174, 86-95	28
935	Synthesis of Cr <sub>2</sub> AlC from Elemental Powders with Modified Pressureless Spark Plasma Sintering. <b>2019</b> , 34, 287-292	7
934	Fabrication on the annealed Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene/Epoxy nanocomposites for electromagnetic interference shielding application. <b>2019</b> , 171, 111-118	201
933	Self-evolved hydrogen peroxide boosts photothermal-promoted tumor-specific nanocatalytic therapy. <b>2019</b> , 7, 3599-3609	33
932	Status review on the MEMS-based flexible supercapacitors. <b>2019</b> , 29, 093001	4
931	Alkali-induced 3D crinkled porous Ti <sub>3</sub> C <sub>2</sub> MXene architectures coupled with NiCoP bimetallic phosphide nanoparticles as anodes for high-performance sodium-ion batteries. <b>2019</b> , 12, 2422-2432	171
930	Planar NiC <sub>3</sub> as a reversible anode material with high storage capacity for lithium-ion and sodium-ion batteries. <b>2019</b> , 7, 13356-13363	23

929	A novel label-free strategy for the ultrasensitive miRNA-182 detection based on MoS/TiC nano hybrids. <b>2019</b> , 137, 45-51	48
928	Dual effects of the carbon fibers/Ti3C2Tx interlayer on retarding shuttle of polysulfides for stable Lithium-Sulfur batteries. <b>2019</b> , 312, 149-156	37
927	FeNC/MXene hybrid nanosheet as an efficient electrocatalyst for oxygen reduction reaction.. <b>2019</b> , 9, 13424-13430	41
926	Improvement of Gas and Humidity Sensing Properties of Organ-like MXene by Alkaline Treatment. <b>2019</b> , 4, 1261-1269	107
925	MoS2/Ti2CT2 (T = F, O) Heterostructures as Promising Flexible Anodes for Lithium/Sodium Ion Batteries. <b>2019</b> , 123, 11493-11499	34
924	Spontaneous MXene monolayer assembly at the liquid-air interface. <b>2019</b> , 11, 9980-9986	14
923	Graphene wrapped MXene via plasma exfoliation for all-solid-state flexible supercapacitors. <b>2019</b> , 20, 299-306	50
922	StrainSpintronics: Modulating Electronic and Magnetic Properties of Hf2MnC2O2 MXene by Uniaxial Strain. <b>2019</b> , 123, 12451-12459	19
921	Multiscale Simulation of Morphology Evolution of Supported Pt Nanoparticles via Interfacial Control. <b>2019</b> , 35, 6393-6402	4
920	High Dielectric Constant and Low Dielectric Loss via Poly(vinyl alcohol)/TiCT MXene Nanocomposites. <b>2019</b> , 11, 18599-18608	78
919	Sol-gel based synthesis and enhanced processability of MAX phase Cr2GaC. <b>2019</b> , 7, 6034-6040	14
918	Few-layer MXene Ti3C2Tx (T = F, O, or OH) saturable absorber for visible bulk laser. <b>2019</b> , 9, 1795	45
917	Optimizing Dispersion, Exfoliation, Synthesis, and Device Fabrication of Inorganic Nanomaterials Using Hansen Solubility Parameters. <b>2019</b> , 20, 1069-1097	11
916	Ti3C2 MXene quantum dots/TiO2 inverse opal heterojunction electrode platform for superior photoelectrochemical biosensing. <b>2019</b> , 289, 131-137	52
915	Size-selected anion photoelectron spectroscopy and density functional theory study of MnC (n = 3-10): Odd-even alternation and linear-cyclic structure competition. <b>2019</b> , 150, 074304	4
914	Hierarchical Ni2P/Cr2CTx (MXene) composites with oxidized surface groups as efficient bifunctional electrocatalysts for overall water splitting. <b>2019</b> , 7, 9324-9334	27
913	Electrocatalytic and Optoelectronic Characteristics of the Two-Dimensional Titanium Nitride TiNT MXene. <b>2019</b> , 11, 11812-11823	50
912	Excellent air and water stability of two-dimensional black phosphorene/MXene heterostructure. <b>2019</b> , 6, 065504	9

911	Atomically Layered and Ordered Rare-Earth i-MAX Phases: A New Class of Magnetic Quaternary Compounds. <b>2019</b> , 31, 2476-2485	53
910	Single-Molecule Sensing Using Nanopores in Two-Dimensional Transition Metal Carbide (MXene) Membranes. <b>2019</b> , 13, 3042-3053	85
909	Modulating the Schottky barriers in MoS <sub>2</sub> /MXenes heterostructures via surface functionalization and electric field. <b>2019</b> , 480, 199-204	31
908	Tuning the Electrical Conductivity of Ti <sub>2</sub> CO <sub>2</sub> MXene by Varying the Layer Thickness and Applying Strains. <b>2019</b> , 123, 6802-6811	25
907	Electrochromic Effect in Titanium Carbide MXene Thin Films Produced by Dip-Coating. <b>2019</b> , 29, 1809223	80
906	Rational Design of Holey 2D Nonlayered Transition Metal Carbide/Nitride Heterostructure Nanosheets for Highly Efficient Water Oxidation. <b>2019</b> , 9, 1803768	143
905	Effects of two-dimension MXene Ti <sub>3</sub> C <sub>2</sub> on hydrogen storage performances of MgH <sub>2</sub> -LiAlH <sub>4</sub> composite. <b>2019</b> , 522, 178-187	23
904	Prediction of Synthesis of 2D Metal Carbides and Nitrides (MXenes) and Their Precursors with Positive and Unlabeled Machine Learning. <b>2019</b> , 13, 3031-3041	95
903	Fast electrochemical kinetics and strong polysulfide adsorption by a highly oriented MoS <sub>2</sub> nanosheet@N-doped carbon interlayer for lithium-sulfur batteries. <b>2019</b> , 7, 7897-7906	68
902	Truncated octahedral bipyramidal TiO <sub>2</sub> /MXene Ti <sub>3</sub> C <sub>2</sub> hybrids with enhanced photocatalytic H <sub>2</sub> production activity. <b>2019</b> , 1, 1812-1818	38
901	One-step in-situ preparation of N-doped TiO <sub>2</sub> @C derived from Ti <sub>3</sub> C <sub>2</sub> MXene for enhanced visible-light driven photodegradation. <b>2019</b> , 251, 154-161	164
900	Novel solvothermal preparation and enhanced microwave absorption properties of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene modified by in situ coated Fe <sub>3</sub> O <sub>4</sub> nanoparticles. <b>2019</b> , 484, 383-391	73
899	Fe <sub>2</sub> O <sub>3</sub> nanorods embedded with two-dimensional {0 0 1} facets exposed TiO <sub>2</sub> flakes derived from Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene for enhanced photoelectrochemical water oxidation. <b>2019</b> , 370, 314-321	18
898	Exploring the microscopic mechanism of pseudocapacitance with electronic structures in monolayer 1T-MoS <sub>2</sub> electrodes for supercapacitors. <b>2019</b> , 3, 1310-1316	3
897	Unraveling the multiscale damping properties of two-dimensional layered MXene. <b>2019</b> , 8, 84-95	3
896	Nanolayered Ti <sub>3</sub> C <sub>2</sub> and SrTiO <sub>3</sub> Composites for Photocatalytic Reduction and Removal of Uranium(VI). <b>2019</b> , 2, 2283-2294	69
895	White Photoluminescent TiC MXene Quantum Dots with Two-Photon Fluorescence. <b>2019</b> , 6, 1801470	92
894	Tuning the photoluminescence of large Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene flakes. <b>2019</b> , 45, 11468-11474	11

893	Controlled Growth of an MoS <sub>2</sub> -Graphene Hybrid Film as an Electrode in Self-Powered Two-Sided MoS <sub>2</sub> -Graphene/Sb <sub>2</sub> Se <sub>3</sub> /TiO <sub>2</sub> Photodetectors. <b>2019</b> , 19,	19
892	Production and Patterning of Liquid Phase-Exfoliated 2D Sheets for Applications in Optoelectronics. <b>2019</b> , 29, 1901126	45
891	Binder free self-standing high performance supercapacitive electrode based on graphene/titanium carbide composite aerogel. <b>2019</b> , 481, 892-899	23
890	Overview of the synthesis of MXenes and other ultrathin 2D transition metal carbides and nitrides. <b>2019</b> , 23, 149-163	178
889	Mxenes Derived Laminated and Magnetic Composites with Excellent Microwave Absorbing Performance. <b>2019</b> , 9, 3957	32
888	Electrostatic self-assembly of 2D delaminated MXene (Ti <sub>3</sub> C <sub>2</sub> ) onto Ni foam with superior electrochemical performance for supercapacitor. <b>2019</b> , 305, 164-174	71
887	Recent advances in micro-supercapacitors. <b>2019</b> , 11, 5807-5821	60
886	MXetronics: Electronic and photonic applications of MXenes. <b>2019</b> , 60, 179-197	128
885	Tuning Thermal Transport Through Atomically Thin Ti <sub>3</sub> C <sub>2</sub> T <sub>z</sub> MXene by Current Annealing in Vacuum. <b>2019</b> , 29, 1805693	17
884	Simple and Cost-Effective Approach To Dramatically Enhance the Durability and Capability of a Layered MnO <sub>2</sub> Based Electrode for Pseudocapacitors: A Practical Electrochemical Test and Mechanistic Revealing. <b>2019</b> , 2, 2743-2750	11
883	Atomic Layer Tailoring Titanium Carbide MXene To Tune Transport and Polarization for Utilization of Electromagnetic Energy beyond Solar and Chemical Energy. <b>2019</b> , 11, 12535-12543	115
882	A facile method for synthesizing CuS decorated Ti <sub>3</sub> C <sub>2</sub> MXene with enhanced performance for asymmetric supercapacitors. <b>2019</b> , 7, 8984-8992	150
881	MXene-Based Composites: Synthesis and Applications in Rechargeable Batteries and Supercapacitors. <b>2019</b> , 6, 1802004	124
880	Intercalation and delamination behavior of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> and MnO <sub>2</sub> /Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> /RGO flexible fibers with high volumetric capacitance. <b>2019</b> , 7, 12582-12592	26
879	Photosensitizer-Anchored 2D MOF Nanosheets as Highly Stable and Accessible Catalysts toward Artemisinin Production. <b>2019</b> , 6, 1802059	60
878	Impact of surface oxidation on the structural, electronic transport, and optical properties of two-dimensional titanium nitride (Ti <sub>3</sub> N <sub>2</sub> ) MXene. <b>2019</b> , 20, e00382	12
877	Novel two-dimensional molybdenum carbides as high capacity anodes for lithium/sodium-ion batteries. <b>2019</b> , 7, 12145-12153	56
876	0D/2D AgInS <sub>2</sub> /MXene Z-scheme heterojunction nanosheets for improved ammonia photosynthesis of N <sub>2</sub> . <b>2019</b> , 61, 27-35	103

875	Two-dimensional Ti <sub>2</sub> CTx MXene membranes with integrated and ordered nanochannels for efficient solvent dehydration. <b>2019</b> , 7, 12095-12104	61
874	Versatile GaInO <sub>3</sub> -sheet with strain-tunable electronic structure, excellent mechanical flexibility, and an ideal gap for photovoltaics. <b>2019</b> , 28, 016105	3
873	Macroporous three-dimensional MXene architectures for highly efficient solar steam generation. <b>2019</b> , 7, 10446-10455	138
872	Low-temperature growth of epitaxial Ti <sub>2</sub> AlC MAX phase thin films by low-rate layer-by-layer PVD. <b>2019</b> , 7, 244-250	15
871	Synthesis of Ti <sub>3</sub> C <sub>2</sub> /TiO <sub>2</sub> heterostructure by microwave heating with high electrochemical performance. <b>2019</b> , 6, 065056	6
870	Two-dimensional V <sub>4</sub> C <sub>3</sub> MXene as high performance electrode materials for supercapacitors. <b>2019</b> , 307, 414-421	55
869	Nitrogen-doped Nb <sub>2</sub> CTx MXene as anode materials for lithium ion batteries. <b>2019</b> , 793, 505-511	41
868	2D MXene nanosheets enable small-sulfur electrodes to be flexible for lithium-sulfur batteries. <b>2019</b> , 11, 8442-8448	83
867	MXenes and ultrasonication. <b>2019</b> , 7, 10843-10857	101
866	MXenes with tunable work functions and their application as electron- and hole-transport materials in non-fullerene organic solar cells. <b>2019</b> , 7, 11160-11169	80
865	Preparation and characterization of Ti <sub>3</sub> C <sub>2</sub> Tx with SERS properties. <b>2019</b> , 62, 1202-1209	12
864	Ultrathin TiCT (MXene) Nanosheet-Wrapped NiSe Octahedral Crystal for Enhanced Supercapacitor Performance and Synergetic Electrocatalytic Water Splitting. <b>2019</b> , 11, 31	78
863	Theory-guided materials design: two-dimensional MXenes in electro- and photocatalysis. <b>2019</b> , 4, 809-827	132
862	Free-standing MXene film modified by amorphous FeOOH quantum dots for high-performance asymmetric supercapacitor. <b>2019</b> , 308, 1-8	37
861	Polymer-MXene composite films formed by MXene-facilitated electrochemical polymerization for flexible solid-state microsupercapacitors. <b>2019</b> , 60, 734-742	72
860	High-Temperature Behavior and Surface Chemistry of Carbide MXenes Studied by Thermal Analysis. <b>2019</b> , 31, 3324-3332	162
859	Surface Termination Dependent Work Function and Electronic Properties of Ti <sub>3</sub> C <sub>2</sub> Tx MXene. <b>2019</b> , 31, 6590-6597	169
858	A safe and fast-charging lithium-ion battery anode using MXene supported Li <sub>3</sub> VO <sub>4</sub> . <b>2019</b> , 7, 11250-11256	65



857	The potential application of 2D Ti <sub>2</sub> CT <sub>2</sub> (T = C, O and S) monolayer MXenes as anodes for Na-ion batteries: A theoretical study. <b>2019</b> , 163, 267-277	22
856	Interface decoration of exfoliated MXene ultra-thin nanosheets for fire and smoke suppressions of thermoplastic polyurethane elastomer. <b>2019</b> , 374, 110-119	182
855	On the Chemical Diversity of the MAX Phases. <b>2019</b> , 1, 210-223	227
854	Preparation of Self-Assembled Composite Films Constructed by Chemically-Modified MXene and Dyes with Surface-Enhanced Raman Scattering Characterization. <b>2019</b> , 9,	62
853	Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene core-shell spheres for ultrahigh removal of mercuric ions. <b>2019</b> , 368, 400-408	80
852	Temperature-dependent optical and electrical properties of bulk Ti <sub>2</sub> AlC and two-dimensional MXenes from first-principles. <b>2019</b> , 560, 146-154	4
851	Negative dielectric constant of water confined in nanosheets. <b>2019</b> , 10, 850	68
850	Experimental progress on layered topological semimetals. <b>2019</b> , 6, 032001	16
849	Recent Advances in 2D Inorganic Nanomaterials for SERS Sensing. <i>Advanced Materials</i> , <b>2019</b> , 31, e1803432	79
848	Energy-Converting Nanomedicine. <b>2019</b> , 15, e1805339	57
847	Promoting Role of MXene Nanosheets in Biomedical Sciences: Therapeutic and Biosensing Innovations. <b>2019</b> , 8, e1801137	141
846	Hydrous RuO <sub>2</sub> -Decorated MXene Coordinating with Silver Nanowire Inks Enabling Fully Printed Micro-Supercapacitors with Extraordinary Volumetric Performance. <b>2019</b> , 9, 1803987	128
845	Stoichiometry and surface structure dependence of hydrogen evolution reaction activity and stability of MoxC MXenes. <b>2019</b> , 371, 325-332	33
844	A Series of MAX Phases with MA-Triangular-Prism Bilayers and Elastic Properties. <b>2019</b> , 58, 4576-4580	16
843	Accelerated Data-Driven Accurate Positioning of the Band Edges of MXenes. <b>2019</b> , 10, 780-785	23
842	Disorder in MAX phases at the atomic scale. <b>2019</b> , 10, 622	13
841	Asymmetric MXene/monolayer transition metal dichalcogenide heterostructures for functional applications. <b>2019</b> , 5,	13
840	Unveiling the Critical Role of Surface Oxidation of Electroresponsive Behaviors in Two-Dimensional Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXenes. <b>2019</b> , 123, 5479-5487	11

839	Oxidation stability of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene nanosheets in solvents and composite films. <b>2019</b> , 3,	162
838	Laser-Cutting Fabrication of Mxene-Based Flexible Micro-Supercapacitors with High Areal Capacitance. <b>2019</b> , 5, 658-665	26
837	Surface chemical-functionalization of ultrathin two-dimensional nanomaterials for electrocatalysis. <b>2019</b> , 12, 250-268	32
836	Prediction of MXene based 2D tunable band gap semiconductors: GW quasiparticle calculations. <b>2019</b> , 11, 3993-4000	36
835	A Series of MAX Phases with MA-Triangular-Prism Bilayers and Elastic Properties. <b>2019</b> , 131, 4624-4628	1
834	Study on the magnetic properties of differently functionalized multilayered Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXenes and Ti-Al-C carbides. <b>2019</b> , 479, 216-224	43
833	Efficient thorium(IV) removal by two-dimensional Ti <sub>2</sub> C <sub>2</sub> T <sub>x</sub> MXene from aqueous solution. <b>2019</b> , 366, 192-199	91
832	2D Triphosphides: SbP <sub>3</sub> and GaP <sub>3</sub> monolayer as promising photocatalysts for water splitting. <b>2019</b> , 44, 5948-5954	33
831	Mapping Hot Spots at Heterogeneities of Few-Layer TiC MXene Sheets. <b>2019</b> , 13, 3301-3309	16
830	Preparation and Dye Degradation Performances of Self-Assembled MXene-CoO Nanocomposites Synthesized via Solvothermal Approach. <b>2019</b> , 4, 3946-3953	39
829	Tailoring TiCT nanosheets to tune local conductive network as an environmentally friendly material for highly efficient electromagnetic interference shielding. <b>2019</b> , 11, 6080-6088	112
828	Low-temperature preferential oxidation of CO over Ag monolayer decorated MoC (MXene) for purifying H <sub>2</sub> . <b>2019</b> , 31, 215201	6
827	Controlled synthesis of alkalized Ti <sub>3</sub> C <sub>2</sub> MXene-supported FeOOH nanoparticles as anodes for lithium-ion batteries. <b>2019</b> , 25, 3069-3077	7
826	Recent advances in shuttle effect inhibition for lithium sulfur batteries. <b>2019</b> , 23, 707-732	123
825	Flexible and ultrathin electrospun regenerate cellulose nanofibers and d-Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXene) composite film for electromagnetic interference shielding. <b>2019</b> , 788, 1246-1255	70
824	Element Replacement Approach by Reaction with Lewis Acidic Molten Salts to Synthesize Nanolaminated MAX Phases and MXenes. <b>2019</b> , 141, 4730-4737	355
823	Two-dimensional MXene-reinforced robust surface superhydrophobicity with self-cleaning and photothermal-actuating binary effects. <b>2019</b> , 6, 1057-1065	86
822	Interface Schottky barrier in HfNT/MSSe (T = F, O, OH; M = Mo, W) heterostructures. <b>2019</b> , 21, 5394-5401	11

821	Investigation of two-dimensional hf-based MXenes as the anode materials for li/na-ion batteries: A DFT study. <b>2019</b> , 40, 1352-1359	16
820	Promoted electro-responsive performances in an interface-confined oxidized niobium carbide MXene. <b>2019</b> , 366, 321-329	41
819	Coupling PtNi Ultrathin Nanowires with MXenes for Boosting Electrocatalytic Hydrogen Evolution in Both Acidic and Alkaline Solutions. <b>2019</b> , 15, e1805474	63
818	Catalytic effect of Ti2C MXene on the dehydrogenation of MgH2. <b>2019</b> , 44, 6787-6794	23
817	High capacity silicon anodes enabled by MXene viscous aqueous ink. <b>2019</b> , 10, 849	174
816	Penta-MX2 (M = Ni, Pd and Pt; X = P and As) monolayers: direct band-gap semiconductors with high carrier mobility. <b>2019</b> , 7, 3569-3575	21
815	2D/2D heterojunction of TiC/g-CN nanosheets for enhanced photocatalytic hydrogen evolution. <b>2019</b> , 11, 8138-8149	197
814	Modelling high-performing batteries with Mxenes: The case of S-functionalized two-dimensional nitride Mxene electrode. <b>2019</b> , 58, 877-885	62
813	Fluorination of MXene by Elemental F as Electrode Material for Lithium-Ion Batteries. <b>2019</b> , 12, 1316-1324	17
812	Fluoride-free synthesis and microstructure evolution of novel two-dimensional Ti3C2(OH)2 nanoribbons as high-performance anode materials for lithium-ion batteries. <b>2019</b> , 45, 8395-8405	34
811	Defect chemistry in 2D materials for electrocatalysis. <b>2019</b> , 12, 215-238	62
810	Cocatalysts for Selective Photoreduction of CO into Solar Fuels. <b>2019</b> , 119, 3962-4179	965
809	Strain Sensors with a High Sensitivity and a Wide Sensing Range Based on a Ti3C2Tx (MXene) Nanoparticle/Nanosheet Hybrid Network. <b>2019</b> , 29, 1807882	110
808	Macroporous 3D MXene architecture for solar-driven interfacial water evaporation. <b>2019</b> , 09, 1950047	7
807	Electrodeposition of a Ni@TiO2/Ti3C2Tx Coating with in situ Grown Nanoparticles TiO2 on Ti3C2Tx Sheets. <b>2019</b> , 9, 750	3
806	Reliability Improvement of Resistance Switching Devices by Insertion of a Novel 2D Material MXene. <b>2019</b> ,	0
805	Multifunctional 2D CuSe monolayer nanodevice. <b>2019</b> , 31, 355301	6
804	Theoretical and Experimental Insights into the Mechanism for Gas Separation through Nanochannels in 2D Laminar MXene Membranes. <b>2019</b> , 7, 751	9

803	Interfacial Dissociation of Contact-Ion-Pair on MXene Electrodes in Concentrated Aqueous Electrolytes. <b>2019</b> , 166, A3739-A3744	14
802	Multilayered stable 2D nano-sheets of TiNT MXene: synthesis, characterization, and anticancer activity. <b>2019</b> , 17, 114	34
801	Breathable and Wearable MXene-Decorated Air-Laid Paper With Superior Folding Endurance and Electromagnetic Interference-Shielding Performances. <b>2019</b> , 6,	8
800	Mechanically strong and electrically conductive multilayer MXene nanocomposites. <b>2019</b> , 11, 20295-20300	52
799	Ultrathin MXene/aramid nanofiber composite paper with excellent mechanical properties for efficient electromagnetic interference shielding. <b>2019</b> , 11, 23382-23391	105
798	1T-MoS <sub>2</sub> nanopatch/Ti <sub>3</sub> C <sub>2</sub> MXene/TiO <sub>2</sub> nanosheet hybrids for efficient photocatalytic hydrogen evolution. <b>2019</b> , 3, 2673-2680	42
797	Carbon-metal compound composite electrodes for capacitive deionization: synthesis, development and applications. <b>2019</b> , 7, 26693-26743	39
796	Alternative electrodes for HTMs and noble-metal-free perovskite solar cells: 2D MXenes electrodes.. <b>2019</b> , 9, 34152-34157	20
795	Titanium Compounds, Inorganic. <b>2019</b> , 1-76	0
794	Thickness biased capture of CO on carbide MXenes. <b>2019</b> , 21, 23136-23142	31
793	Monolayer MBenes: prediction of anode materials for high-performance lithium/sodium ion batteries. <b>2019</b> , 11, 20307-20314	30
792	Recent advances in two-dimensional materials and their nanocomposites in sustainable energy conversion applications. <b>2019</b> , 11, 21622-21678	109
791	Ambient oxidation of TiC MXene initialized by atomic defects. <b>2019</b> , 11, 23330-23337	55
790	2D and 3D nanostructuring strategies for thermoelectric materials. <b>2019</b> , 11, 19684-19699	32
789	Few-layered Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXenes coupled with Fe <sub>2</sub> O <sub>3</sub> nanorod arrays grown on carbon cloth as anodes for flexible asymmetric supercapacitors. <b>2019</b> , 7, 22631-22641	49
788	Emerging two-dimensional noncarbon nanomaterials for flexible lithium-ion batteries: opportunities and challenges. <b>2019</b> , 7, 25227-25246	30
787	Fabrication of a Novel Antifouling Polysulfone Membrane with in Situ Embedment of Mxene Nanosheets. <b>2019</b> , 16,	29
786	Novel Sturable Absorber Based on 2D Nanomaterial, MXene Solution. <b>2019</b> ,	

785	High-Strength, Self-Healable, Temperature-Sensitive, MXene-Containing Composite Hydrogel as a Smart Compression Sensor. <b>2019</b> , 11, 47350-47357	90
784	Nonpolar Organic Dispersion of 2D TiCT MXene Flakes Simultaneous Interfacial Chemical Grafting and Phase Transfer Method. <b>2019</b> , 13, 13818-13828	63
783	Constructing Conductive Bridge Arrays between TiCT MXene Nanosheets for High-Performance Lithium-Ion Batteries and Highly Efficient Hydrogen Evolution. <b>2019</b> , 58, 16524-16536	14
782	Conducting and Lithiophilic MXene/Graphene Framework for High-Capacity, Dendrite-Free Lithium-Metal Anodes. <b>2019</b> , 13, 14308-14318	97
781	In Situ Fabricating Oxygen Vacancy-Rich TiO Nanoparticles via Utilizing Thermodynamically Metastable Ti Atoms on TiCTx MXene Nanosheet Surface To Boost Electrocatalytic Activity for High-Performance Li-O Batteries. <b>2019</b> , 11, 46696-46704	47
780	TiC-MXene/Bismuth Ferrite Nanohybrids for Efficient Degradation of Organic Dyes and Colorless Pollutants. <b>2019</b> , 4, 20530-20539	56
779	Introduction and Characterization of Phosphorus Nanomaterials. <b>2019</b> , 27-45	2
778	A dual signal-on biosensor based on dual-gated locked mesoporous silica nanoparticles for the detection of Aflatoxin B1. <b>2023</b> , 253, 124027	0
777	Theoretical insight into the electronic, optical, and photocatalytic properties and quantum capacitance of Sc <sub>2</sub> CT <sub>2</sub> (T = F, P, Cl, Se, Br, O, Si, S, OH) MXenes. <b>2023</b> , 207, 111615	0
776	Paraffin/polyvinyl alcohol/MXene flexible phase change composite films for thermal management applications. <b>2023</b> , 453, 139727	0
775	Hydrogen trapping potential of a few novel molecular clusters and ions. <b>2023</b> , 297-312	0
774	Theory, properties and engineering of 2D magnetic materials. <b>2023</b> , 132, 101036	1
773	Aging of 2D MXene nanoparticles in air: An XPS and TEM study. <b>2023</b> , 610, 155351	0
772	Recently emerging trends in MXene hybrid conductive polymer energy storage nanoarchitectures. <b>2022</b> , 61, 861-887	0
771	Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> Quantum Dots/ Polyvinyl alcohol Films as Enhanced Long-term Stable Saturable Absorber Device for Ultrafast Photonics.	0
770	Enhanced pseudocapacitive energy storage and thermal stability of Sn <sup>2+</sup> ion-intercalated molybdenum titanium carbide (Mo <sub>2</sub> TiC <sub>2</sub> ) MXene. <b>2022</b> , 12, 31923-31934	0
769	Development of nanotechnology-mediated precision radiotherapy for anti-metastasis and radioprotection.	1
768	Ultrahigh fluid sorption capacity of superhydrophobic and tough cryogels of cross-linked cellulose nanofibers, cellulose nanocrystals, and Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene nanosheets.	0

- 767 Recent Advances in the MXenes for Photocatalytic and Hydrogen Production Applications. **2022**, 2219-2260 ○
- 766 Emerging functional materials for microfluidic biosensors. **2023**, 195-231 ○
- 765 Towards hospital-on-chip supported by 2D MXenes-based 5th generation intelligent biosensors. **2023**, 220, 114847 4
- 764 In situ growth of metal-organic layer on ultrathin Ti<sub>3</sub>C<sub>2</sub>T MXene nanosheet boosting fast electron/ion transport for electrochemiluminescence enhancement. **2023**, 220, 114886 ○
- 763 Two-dimensional heterostructures for photocatalytic CO<sub>2</sub> reduction. **2023**, 216, 114699 ○
- 762 Humidity sensing based strategy for in situ probing and manipulating electrified interfacial water adsorption dynamics. **2023**, 454, 140219 ○
- 761 Bio-inspired self-healing MXene/polyurethane coating with superior active/passive anticorrosion performance for Mg alloy. **2023**, 454, 140187 1
- 760 Boosting photocatalytic activity of C-F-TiO<sub>2</sub> nanosheets derived from in-situ pyrolysis of MXene. **2023**, 611, 155630 ○
- 759 High-strength MXene sheets through interlayer hydrogen bonding for self-healing flexible pressure sensor. **2023**, 453, 139823 5
- 758 Highly-dispersed nano-TiB<sub>2</sub> derived from the two-dimensional Ti<sub>3</sub>CN MXene for tailoring the kinetics and reversibility of the Li-Mg-B-H hydrogen storage material. **2023**, 610, 155581 3
- 757 INVESTIGATION OF THE FEATURES OF THE SURFACE STRUCTURE OF TWODIMENSIONAL LAYERED MATERIALS Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> (T<sub>3</sub>CF) BY INFRARED SPECTROSCOPY AND RAMAN SPECTROSCOPY METHODS. **2022**, 89, 477-484 ○
- 756 Recent Advances in Capacitive Deionization: Research Progress and Application Prospects. **2022**, 14, 14429 1
- 755 Highly sensitive graphene-based ammonia sensor enhanced by electrophoretic deposition of MXene. **2022**, ○
- 754 Supramolecular engineered ultrathin MXene towards fire safe polylactic acid composites. **2022**, 101405 ○
- 753 Selectivity for intercalated ions in MXene toward a high-performance capacitive electrode. ○
- 752 Light-induced tumor theranostics based on chemical-exfoliated borophene. **2022**, 11, ○
- 751 Electrically conductive and highly compressible anisotropic MXene-wood sponges for multifunctional and integrated wearable devices. **2022**, ○
- 750 Dual-Signal Electrochemical Biosensor for Neutrophil Gelatinase-Associated Lipocalin Based on MXene-Polyaniline and Cu-MOF/Single-Walled Carbon Nanohorn Nanostructures. ○

- 749 Plasmonic Optical Fiber Gratings Based on Few-Layer Ta<sub>2</sub>C MXenes for Refractive Index Sensing. ○
- 748 Highly enhanced thermal conductivity from Boron nitride nanosheets and MXene phonon resonance in 3D PMMA spheres composites. **2022**, 100269 ○
- 747 Influence of surface termination groups on electrochemical charge storage of MXene electrodes. ○
- 746 MXene-Based Ceramic Nanocomposites Enabled by Pressure-Assisted Sintering. ○
- 745 Universal Ligands for Dispersion of Two-Dimensional MXene in Organic Solvents. 1
- 744 2D Transition Metal Carbides (MXenes) for Applications in Electrocatalysis. **2022**, 165-198 ○
- 743 MOF-derived bimetallic NiMo-based sulfide electrocatalysts for efficient hydrogen evolution reaction in alkaline media. **2022**, 167974 ○
- 742 Bifunctional oxygen electrocatalysts for rechargeable zinc-air battery based on MXene and beyond. **2023**, 18, ○
- 741 Few-Layered Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene Synthesized via Water-free Etching toward High-Performance Supercapacitors. **2022**, ○
- 740 Two-Dimensional Functionalized Germananes: Synthesis and Applications. 2207196 1
- 739 Ultrahigh Capacity and Rapid Selective Recycling of Gold Ions by Organic Intercalated and Exfoliated Few-Layer Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> Nanosheets. ○
- 738 Ti<sub>3</sub>C<sub>2</sub> MXene/gold nanorods-based hybrid nanoparticles with photodynamic antibacterial activities. **2022**, 57, 19957-19971 ○
- 737 Electronic Nature Transition and Magnetism Creation in Vacancy-Defected Ti<sub>2</sub>CO<sub>2</sub> MXene under Biaxial Strain: A DFTB + U Study. ○
- 736 Two-dimensional transition metal carbides and nitrides (MXenes) based biosensing and molecular imaging. **2022**, 1
- 735 A Multifunctional Flexible Electronic Skin for Dynamic Thermal Radiation Regulation and Electromagnetic Interference Shielding. 1
- 734 Enhanced electrochemical properties of d-Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> anode by h-BN addition for lithium-ion rechargeable battery. ○
- 733 Two-dimensional titanium carbide (Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub>) MXene produced by ternary cations intercalation via structural control with angstrom-level precision. **2022**, 105562 ○
- 732 Two-Dimensional Half-Metallic and Semiconducting Lanthanide-Based MXenes. **2022**, 7, 40929-40940 ○

- 731 In-liquid plasma discharge for one-step synthesis of MXene embedded TiO<sub>2</sub> thin film on Ti foil as lithium-ion battery anode. **2022**, 121, 191602 ○
- 730 Zr<sub>2</sub>SeB and Hf<sub>2</sub>SeB: Two new MAB phase compounds with the Cr<sub>2</sub>AlC-type MAX phase (211 phase) crystal structures. **2022**, 11, 1764-1776 ○
- 729 MXene-Based Composites as Nanozymes in Biomedicine: A Perspective. **2022**, 14, ○
- 728 Surface-Functionalized Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene as a Kind of Efficient Lubricating Additive for Supramolecular Gel. ○
- 727 Emerging MXene-Based Memristors for In-Memory, Neuromorphic Computing, and Logic Operation. 2208320 1
- 726 Passively Q-switched single crystal fiber pulsed laser at 1.05  $\mu$ m with Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> as saturable absorber. ○
- 725 Sweat cortisol determination utilizing MXene and multi-walled carbon nanotube nanocomposite functionalized immunosensor. **2022**, 108172 ○
- 724 Piezo-triboelectric hybridized nanogenerator embedding MXene based bifunctional conductive filler in polymer matrix for boosting electrical power. **2022**, 108018 2
- 723 3D conductive material strategies for modulating and monitoring cells. **2022**, 101041 ○
- 722 Hierarchical Asymmetric Complementary Bionic Structure for Highly Sensitive Pressure Sensor. 2200820 ○
- 721 Investigation and understanding of the mechanical properties of MXene by high-throughput computations and interpretable machine learning. **2022**, 101921 ○
- 720 On the Use of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene as a Negative Electrode Material for Lithium-Ion Batteries. **2022**, 7, 41696-41710 ○
- 719 Emerging applications of MXenes for photodetection: Recent advances and future challenges. **2022**, ○
- 718 Redox-responsive MXene-SS-PEG nanomaterials for delivery of doxorubicin. **2022**, 110227 ○
- 717 Identifying the surface properties of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene through transmission electron microscopy. **2022**, 3, 101151 ○
- 716 2D layered MXene/TiO<sub>2</sub> nano-heterostructures for photocatalytic H<sub>2</sub> generation. ○
- 715 2D MXenes for controlled releases of therapeutic proteins. ○
- 714 MXene fibers for electronic textiles: Progress and perspectives. **2022**, 107996 ○



713	Constructing 2D/2D heterojunction of MnO <sub>2</sub> nanolamellas grown on MXene nanosheets for boosted supercapacitor performance. <b>2022</b> , 56, 106105	0
712	Construction of ternary Ag/Ti <sub>3</sub> C <sub>2</sub> /TiO <sub>2</sub> photocatalysts for rhodamine B degradation under visible light radiation. <b>2022</b> , 134, 113201	0
711	Insights into electronic and magnetic properties of MXenes: From a fundamental perspective. <b>2022</b> , 34, e00516	0
710	MXenes as heterogeneous Fenton-like catalysts for removal of organic pollutants: A review. <b>2022</b> , 10, 108954	3
709	Enhanced electronic and thermoelectric properties of Zr <sub>2</sub> CO <sub>2</sub> /GaS van der Waals heterostructure: A First-principles study. <b>2022</b> , 35, 102453	0
708	Progress, challenges, and opportunities of two-dimensional layered materials based electrochemical sensors and biosensors. <b>2022</b> , 26, 101235	0
707	Engineering Functional Natural Polymer Based Nanocomposite Hydrogels for Wound Healing.	1
706	MXenes: trends, growth, and future directions.	1
705	In-situ synthesized gold nanoparticles modified Mo <sub>2</sub> C MXene for surface enhanced Raman scattering.	0
704	Diverse structural constructions of graphene-based composites for supercapacitors and metal-ion batteries. <b>2022</b> , 100453	0
703	Facile synthesis of MXene/Polyvinyl alcohol hybrid material for robust flexible memristor. <b>2022</b> , 123731	0
702	MXene-based chemical gas sensors: Recent developments and challenges. <b>2022</b> , 109557	0
701	Next-Generation Anodes for Secondary Li-Ion Batteries. <b>2023</b> , 127-185	0
700	Comparative performance analysis of HTLs in MXene-assisted perovskite solar cells. <b>2023</b> , 529, 129104	1
699	0D/2D CuFe <sub>2</sub> O <sub>4</sub> /MXene Z-scheme heterojunction for improved photocatalytic selective oxidation reaction. <b>2023</b> , 611, 155670	0
698	Material Choice and Structure Design of Flexible Battery Electrode. 2204875	0
697	Ti <sub>3</sub> C <sub>2</sub> MXene Promoted Fe <sup>3+</sup> /H <sub>2</sub> O <sub>2</sub> Fenton Oxidation: Comparison of Mechanisms under Dark and Visible Light Conditions. <b>2022</b> , 130450	0
696	Demonstration of a dual-wavelength Q-switched Tm:YAG laser with V <sub>2</sub> C <sub>3</sub> -based saturable absorber. <b>2022</b> , 170278	0

- 695 Interfacial Charge Modulation: An Efficient Strategy for Stable Blue Quantum-Dot Light-Emitting Diodes. 2201802 ○
- 694 Recent advances in 2D metal carbides and nitrides (MXenes): synthesis and biological application. ○
- 693 New horizons of MBenes: highly active catalysts for the CO oxidation reaction. ○
- 692 Broadband Wide-Angle VELOCITY Selector (BWAVES) neutron spectrometer designed for the SNS Second Target Station. 2022, 272, 02003 ○
- 691 High-throughput analysis of tetragonal transition metal Xenes. 2022, 24, 29406-29412 1
- 690 Highly selective NH<sub>3</sub> gas sensor based on Co(OH)<sub>2</sub>/Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> nanocomposites operating at room temperature. 2022, 12, 33056-33063 ○
- 689 Recent development in two-dimensional material-based advanced photoanodes for high-performance dye-sensitized solar cells. 2023, 249, 606-623 ○
- 688 A review related to MXene preparation and its sensor arrays of electronic skins. ○
- 687 Current progresses in two-dimensional MXene-based framework: prospects from superficial synthesis to energy conversion and storage applications. 2023, 27, 101238 ○
- 686 The application road of silicon-based anode in lithium-ion batteries: From liquid electrolyte to solid-state electrolyte. 2023, 55, 244-263 4
- 685 A review on the synthesis of MXenes and their lubrication performance and mechanisms. 2023, 179, 108170 ○
- 684 MXene-incorporated 1D/2D nano-carbons for electromagnetic shielding: A review. 2023, 203, 542-560 ○
- 683 MXene-based aptasensor for the detection of aflatoxin in food and agricultural products. 2023, 316, 120695 1
- 682 Mo<sub>4</sub>/3B<sub>2</sub>T<sub>2</sub>-based saturable absorber for generating conventional and bound-state solitons in erbium-doped fibre laser. 2023, 75, 103159 ○
- 681 Cyclocrosslinked polyphosphazene modified MXene as aqueous supercapacitor. 2023, 439, 141574 ○
- 680 An efficient photocatalytic system composed of Ti<sub>3</sub>C<sub>2</sub> quantum dots incorporated in TiO<sub>2</sub> nanosheets and CuWO<sub>4</sub> nanoparticles: fabrication and its photocatalytic activity for H<sub>2</sub> production. ○
- 679 Heteroatom preintercalated Cl-terminated Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene wrapped with mesoporous Fe<sub>2</sub>O<sub>3</sub> nanospheres for improved sodium ion storage. 1
- 678 Ni<sub>3</sub>S<sub>2</sub> thin-layer nanosheets coupled with Co<sub>9</sub>S<sub>8</sub> nanoparticles anchored on 3D cross-linking composite structure CNT@MXene for high-performance asymmetric supercapacitor. 2023, 439, 141694 ○

- 677 Optimized electron/ion transport by constructing radially oriented channels in MXene hybrid fiber electrodes for high-performance supercapacitors at low temperatures. 1
- 676 One-step fragmentation of a 2D MXene across the fine 1D MnO<sub>2</sub> surface and its supercapacitance. **2022**, 25, 72-85 0
- 675 Multifunctional MXene sediment-based composite film for electromagnetic interference shielding and joule heating. **2023**, 37, 101432 0
- 674 Theoretical prediction of superconductivity in two-dimensional MXenes of molybdenum carbides. **2022**, 25, 580-589 0
- 673 High-yield fabrication of electromechanical devices based on suspended Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene monolayers. 0
- 672 Nanocrystalline TiO<sub>2</sub>/Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene composites with a tunable work function prepared using atmospheric pressure oxygen plasma. 0
- 671 Raman Spectra of 2D Titanium Carbide MXene from Machine-Learning Force Field Molecular Dynamics. 0
- 670 A loofah-based photothermal biomass material with high salt-resistance for efficient solar water evaporation. **2023**, 37, 101430 0
- 669 Ultrathin Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene-based electrochemical transistor for highly sensitive determination of nitrite. **2023**, 928, 117012 0
- 668 High-performance asymmetric supercapacitor based on nickel-MOF anchored MXene//NPC/rGO. **2023**, 928, 117036 0
- 667 Rhenium anchored Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> (MXene) nanosheets for electrocatalytic hydrogen production. 0
- 666 Cobalt containing bimetallic ZIFs and their derivatives as OER electrocatalysts: A critical review. **2023**, 477, 214925 0
- 665 Construction of polyphosphazene-functionalized Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> with high efficient flame retardancy for epoxy and its synergetic mechanisms. **2023**, 456, 141049 0
- 664 Electrochemical deposition of Prussian blue on Nb<sub>2</sub>CT MXene modified carbon cloth for the non-enzymatic electrochemical detection of hydrogen peroxide. **2023**, 185, 108301 0
- 663 Strain effect on the defect formation and diffusion in Ti<sub>2</sub>AlC and Ti<sub>3</sub>AlC<sub>2</sub>: A first-principles study. **2023**, 218, 111946 0
- 662 Carbonized MXene-polyvinylpyrrolidone as an adsorbent for solid-phase microextraction of polycyclic aromatic hydrocarbons from tea beverages prior to GC analysis. **2023**, 185, 108313 0
- 661 Materials design and preparation for high energy density and high power density electrochemical supercapacitors. **2023**, 152, 100713 0
- 660 Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene@carbon dots hybrid microflowers as a binder-free electrode material toward high capacity capacitive deionization. **2023**, 548, 116267 0

- 659 A review of recent progress in 2D MXenes: Synthesis, properties, and applications. **2023**, 132, 109634 ○
- 658 Perspectives for electromagnetic radiation protection with MXenes. **2023**, 204, 17-25 1
- 657 A review on the recent advances in composite membranes for CO<sub>2</sub> capture processes. **2023**, 307, 122752 ○
- 656 Two-dimensional nanomaterials: A critical review of recent progress, properties, applications, and future directions. **2023**, 165, 107362 1
- 655 Screening of single transition metal substitution in two-dimensional Mo<sub>2</sub>CT MXene electrocatalyst with ultrahigh activity for oxygen reduction reaction. **2023**, 36, 102585 1
- 654 High pressure mediated physical properties of Hf<sub>2</sub>AB (A = Pb, Bi) via DFT calculations. **2023**, 34, 105147 1
- 653 MXene as emerging material for photocatalytic degradation of environmental pollutants. **2023**, 477, 214965 2
- 652 Next generation 2D materials for anodes in battery applications. **2023**, 556, 232256 ○
- 651 Single Zn atom catalyst on Ti<sub>2</sub>CN<sub>2</sub> MXenes for efficient CO oxidation. **2023**, 147, 115595 ○
- 650 Synthesis and characterization MXene-Ferrite nanocomposites and its application for dyeing and shielding. **2023**, 148, 110319 ○
- 649 Electron and ion transport behavior of Vanadium based MXene induced by pressure for Lithium ion intercalated electrodes. **2023**, 633, 207-217 1
- 648 Squaraine dye/Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene organic-inorganic hybrids for photocatalytic hydrogen evolution. **2023**, 633, 218-225 ○
- 647 A mid-infrared passively Q-switching Er:YSGG pulse laser based on MXene saturable absorber. **2023**, 273, 170413 ○
- 646 MXene based activated carbon novel nano-sandwich for efficient CO<sub>2</sub> adsorption in fixed-bed column. **2023**, 68, 102353 ○
- 645 Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene nanosheets enhance the tolerance of *Torreya grandis* to Pb stress. **2023**, 445, 130647 ○
- 644 Interface engineering of Ti<sub>3</sub>C<sub>2</sub> nanosheets for fabricating thermoplastic polyurethane composites with excellent flame-retardant and smoke suppressive properties. **2023**, 658, 130733 ○
- 643 A portable smartphone-compatible ratiometric electrochemical sensor with ultrahigh sensitivity for anticancer drug mitoxantrone sensing. **2023**, 378, 133103 ○
- 642 BiOI@CeO<sub>2</sub>@Ti<sub>3</sub>C<sub>2</sub> MXene composite S-scheme photocatalyst with excellent bacteriostatic properties. **2023**, 633, 836-850 ○

641	Photothermocatalytic sterilization performance and mechanism of pure Nb <sub>2</sub> CT MXenes nanosheets under infrared light irradiation. <b>2023</b> , 613, 155990	0
640	Application of MXene-based materials in Fenton-like systems for organic wastewater treatment: A review. <b>2023</b> , 862, 160539	1
639	A rational design of titanium-based heterostructures as electrocatalyst for boosted conversion kinetics of polysulfides in Li-S batteries. <b>2023</b> , 633, 432-440	0
638	Effect of reverse irradiation angle on the photo-thermal conversion performance of MXene nanofluid-based direct absorption solar collector. <b>2023</b> , 251, 112164	1
637	Atomic catalyst supported on oxygen defective MXenes for synergetic electrocatalytic nitrate reduction to ammonia: A first principles study. <b>2023</b> , 614, 156077	0
636	Recent advances in two-dimensional ultrathin Bi-based photocatalysts. <b>2023</b> , 133, 101047	0
635	SnS nanosheets firmly bound in alkali-treated wrinkled MXene framework with enhanced lithium-ion storage. <b>2023</b> , 633, 737-745	0
634	Investigating the Local Structure of Ti Based MXene Materials by Temperature Dependent X-Ray Absorption Spectroscopy.	0
633	Potent antibacterial activity of MXene-functionalized graphene nanocomposites. <b>2022</b> , 12, 33142-33155	1
632	2D Materials for Photovoltaics. <b>2022</b> , 1-51	0
631	Insights into the Recent Advances in Nanomaterial Based Electrochemical Sensors for Pesticides in Food. <b>2022</b> , 50, 03005	0
630	Harvesting osmotic energy from proton gradients enabled by two-dimensional Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene membranes. <b>2022</b> , 2, 100046	0
629	Synthesis and characterization of an ultra-thin BiOCl/MXene heterostructure for the detection of NO <sub>2</sub> at room temperature with enhanced moisture resistance. <b>2022</b> , 10, 25714-25724	0
628	MXenes and MXene-supported nanocomposites: a novel materials for aqueous environmental remediation. <b>2022</b> , 12, 34766-34789	0
627	Recent advancements in electromagnetic interference shielding of polymer and mxene nanocomposites. <b>2023</b> , 62, 19-53	2
626	Novel Laser Patterned MXene Based Anodes For High Capacity Fast Charging Li-Ion Batteries. <b>2022</b> ,	0
625	Multifunctional, breathable MXene-PU mesh electronic skin for wearable intelligent 12-lead ECG monitoring system. <b>2022</b> , 140690	1
624	Multiscale Computational Approaches toward the Understanding of Materials. 2200628	1

- 623 Dual (pH- and ROS-) Responsive Antibacterial MXene-Based Nanocarrier for Drug Delivery. **2022**, 23, 14925 0
- 622 HRP-catalyzed grafting of MXene@PGA to silk fibers for visualization of dual-driven heating smart textile. **2022**, 0
- 621 Spectroscopic characterization of chain-to-ring structural evolution in platinum carbide clusters. **2022**, 0
- 620 PtNi Nanoparticles on V<sub>2</sub>C MXene as Hydrazine Dehydrogenation Catalysts. **2022**, 5, 18357-18364 0
- 619 Reconfiguring the Electronic Structure of Heteroatom Doped Carbon Supported Bimetallic Oxide@Metal Sulfide Core/Shell Heterostructure via In Situ Nb Incorporation toward Extrinsic Pseudocapacitor. 2205491 0
- 618 Bismuth-Based BiOBr<sub>x</sub>I<sub>1-x</sub>/Ti<sub>3</sub>C<sub>2</sub> MXene Schottky Nanocomposites for Hg<sup>2+</sup> Photoelectrochemical Sensors. **2022**, 5, 18168-18177 0
- 617 Strategies toward High-Loading Lithium/Sulfur Batteries. 116-150 2
- 616 Tuning the Surface Chemistry of MXene to Improve Energy Storage: Example of Nitrification by Salt Melt. 2202709 2
- 615 Applications of MXenes in human-like sensors and actuators. 2
- 614 Ti<sub>3</sub>C<sub>2</sub>-MXene Partially Derived Hierarchical 1D/2D TiO<sub>2</sub>/Ti<sub>3</sub>C<sub>2</sub> Heterostructure Electrode for High-Performance Capacitive Deionization. 2204041 1
- 613 Theoretical investigation of the MXene precursors MoxV<sub>4-x</sub>AlC<sub>3</sub> (0 ≤ x ≤ 4). 0
- 612 Intercalation and Encapsulation of In Situ Grown Black Phosphorus within Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene Sheets for Energy Storage. **2022**, 5, 17526-17537 0
- 611 Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene Nanosheets as Lubricant Additives to Lower Friction under High Loads, Sliding Ratios, and Elevated Temperatures. 0
- 610 Maximizing Ion Dynamics and Electrochemical Performance of Ionic Liquid-Acetonitrile Electrolyte in Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene. 0
- 609 Ultrastrong MXene films via the synergy of intercalating small flakes and interfacial bridging. **2022**, 13, 0
- 608 Flexible Torsional Photoactuators Based on MXene/Carbon Nanotube/Paraffin Wax Films. 0
- 607 MXene-Based Ink Design for Printed Applications. **2022**, 12, 4346 0
- 606 MXenes for Sulfur-Based Batteries. 2202860 0

605	NiO/Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene nanocomposites sensor for ammonia gas detection at room temperature. <b>2022,</b>	0
604	Structurally Modified MXenes-Based Catalysts for Application in Hydrogen Evolution Reaction: A Review. <b>2022,</b> 12, 1576	0
603	Hollow Spheres of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> with a Nanometer-Thick Wall for High-Performance Microwave Absorption. <b>2022,</b> 5, 18488-18499	0
602	Infection Management of Virus-Diagnosing Biosensors Based on MXenes: An Overview.	0
601	Effect of Ti <sub>2</sub> CT <sub>x</sub> MXene Oxidation on Its Gas-Sensitive Properties. <b>2023,</b> 11, 13	3
600	Three-dimensional AgNps@Mxene@PEDOT:PSS composite hybrid foam as a piezoresistive pressure sensor with ultra-broad working range. <b>2022,</b> 57, 21960-21979	1
599	Interface Engineering of Fe <sub>3</sub> Se <sub>4</sub> /FeSe Heterostructures Encapsulated in MXene for Boosting LiPS Conversion and Inhibiting Shuttle Effect. <b>2022,</b> 141139	0
598	Electrically driven active VO <sub>2</sub> /MXene metasurface for the terahertz modulation. <b>2022,</b> 121, 241902	0
597	Interlayer Modulation of Layered Transition Metal Compounds for Energy Storage. <b>2022,</b> 14, 54369-54388	1
596	Toward Smart Sensing by MXene. 2206126	2
595	Three-Dimensional MAX-Ti <sub>3</sub> AlC <sub>2</sub> Nanomaterials for Dual-Selective and Highly Efficient Enrichment of Phosphorylated and Glycosylated Peptides.	0
594	Rhus vernificera laccase immobilization on Ti <sub>2</sub> N MXene as a potential biocatalyst in environmental remediation.	0
593	Progress in engineering interlayer space modulated MXenes to architect next-generation airborne pollutant sensors. <b>2022,</b> 133225	0
592	Facile self-assembly of sandwich-like MXene layered multiscale structure nanocomposite. <b>2023,</b> 10, 015014	0
591	Nanomaterials and nanomaterials-based drug delivery to promote cutaneous wound healing. <b>2022,</b> 114670	1
590	Recent Advances of the Key Parameters of 3d block Transition Metal Single and Dual Atoms Catalysts: From Their Synthesis to Their Practical Applications. <b>2022,</b> 100288	0
589	Layer-stacking of chalcogenide-terminated MXenes Ti <sub>2</sub> CT <sub>2</sub> (T = O, S, Se, Te) and their applications in metal-ion batteries. <b>2023,</b> 34, 105704	0
588	Fundamentals and Scientific Challenges in Structural Design of Cathode Materials for Zinc-Ion Hybrid Supercapacitors. 2202303	0

- 587 Bioinspired Macrocyclic Molecule Supported Two-Dimensional Lamellar Membrane with Robust Interlayer Structure for High-Efficiency Nanofiltration. 2206516 0
- 586 Highly Enhanced Photocatalytic Hydrogen Production Performance of Heterostructured Ti<sub>3</sub>C<sub>2</sub>/TiO<sub>2</sub>/rGO Composites. **2022**, 38, 15579-15591 0
- 585 Double-layer stretching broadens the absorption range of the solar spectrum in XSi<sub>2</sub>N<sub>4</sub>. **2022**, 414583 0
- 584 Molecular Mechanism and Microkinetic Analysis of the Reverse Water Gas Shift Reaction Heterogeneously Catalyzed by the Mo<sub>2</sub>C MXene. **2022**, 12, 15658-15667 0
- 583 Synergistic adsorption of U(VI) from seawater by MXene and amidoxime mixed matrix membrane with high efficiency. **2022**, 123024 0
- 582 Chemical Preintercalation Synthesis of Versatile Electrode Materials for Electrochemical Energy Storage. 1
- 581 High-Performance Ppb Level NO<sub>2</sub> Gas Sensor Based on Colloidal SnO<sub>2</sub> Quantum Wires/Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene Composite. **2022**, 12, 4464 0
- 580 Fabrication of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub>-based superhydrophobic composite coating for reinforcement corrosion resistance of AZ31B Mg alloy. 0
- 579 Thickness-Independent Capacitive Performance of Holey Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> Film Prepared through a Mild Oxidation Strategy. 2205947 2
- 578 Universal Capacitance Boost Smart Surface Nanoengineering by Zwitterionic Molecules for 2D MXene Supercapacitor. 2201329 1
- 577 Advanced perspectives on MXene composite nanomaterials: types synthetic methods, thermal energy utilization and 3D-printed techniques. **2022**, 105824 0
- 576 Recent advances in transition metal nitrides for hydrogen electrocatalysis in alkaline media: From catalyst design to application. 10, 0
- 575 Microwave Absorbing Materials for Stealth Application: A Holistic Overview. 0
- 574 Recent progress in two-dimensional nanomaterials of graphene and MXenes for thermal camouflage. **2022**, 0
- 573 Searching for High-Performance Two-Dimensional Channel Materials from First-Principles Calculations. **2022**, 126, 21149-21154 0
- 572 Perspectives of 2D MXene Tribology. 2207757 2
- 571 Supercritical etching method for the large-scale manufacturing of MXenes. **2022**, 108147 0
- 570 Highly Performant Electromagnetic Absorption at the X Band Based on Co@NCS/Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> Composites. **2022**, 14, 56213-56225 1



- 569 Effect of MXene Nanosheet Dispersed Phases on the Fabrication of Polyamide Nanofiltration Membranes. ○
- 568 Are Janus MoSSe/Ti<sub>3</sub>C<sub>2</sub>-MXene heterostructures excellent anode materials for Na-ion batteries? A computational insight combined experiment. **2022**, 156196 ○
- 567 Nickel Supported on Multilayer Vanadium Carbide for Dry Reforming of Methane. **2022**, 7, ○
- 566 High-sensitive ppb-level ammonia QCM sensor based on sulfur doped Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene. **2022**, 114138 ○
- 565 Fabrication and cytotoxicity evaluation of polyethyleneimine conjugated fluorescent MXene nanosheets as cancer theranostics agent. ○
- 564 Manipulation of Charge-Transfer Kinetics via Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> (T = D) Quantum Dot and N-Doped Carbon Dot Coloaded on CdS for Photocatalytic Hydrogen Production. 587-600 1
- 563 Effective Method for the Determination of the Unit Cell Parameters of New MXenes. **2022**, 15, 8798 ○
- 562 MXene-Based Nanomaterials for Biomedical Applications: Healthier Substitute Materials for the Future. 2200123 1
- 561 Two-Dimensional MXenes for Energy Storage: Computational and Experimental Approaches. **2022**, 7, ○
- 560 Polymer Crystallization Regulation in Liquid Phase Enables Wearable Full-Featured Thermoplastic-Based Smart Janus Film. **2022**, 141163 ○
- 559 Lightweight MXene-Based Hybrid Aerogels with Ultrabroadband Terahertz Absorption and Anisotropic Strain Sensitivity. ○
- 558 Rational construction of S-scheme BN/MXene/ZnIn<sub>2</sub>S<sub>4</sub> heterojunction with interface engineering for efficient photocatalytic hydrogen production and chlorophenols degradation. **2022**, 123004 1
- 557 The highly sensitive ethanol sensor based on nanocomposites of ZnO in situ grown on 2D Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> nanosheet. **2023**, 34, 105707 1
- 556 Applications of advanced MXene-based composite membranes for sustainable water desalination. **2022**, 137643 ○
- 555 Two-Dimensional Non-Carbon Materials-Based Electrochemical Printed Sensors: An Updated Review. **2022**, 22, 9358 1
- 554 Synergistic Construction of Efficient Heterostructure Electrocatalysis for High-Performance Lithium-Sulfur Batteries. **2022**, 5, 15392-15400 ○
- 553 Efficient Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene/TiO<sub>2</sub> Hybrid Photoanodes for Dye-Sensitized Solar Cells. **2022**, 5, 15928-15938 ○
- 552 Excitonic Effects in the Optical Properties of Scandium and Hafnium MXene Semiconductors from First-Principles Calculations. 2200469 ○

551	Electrically Tunable MXene Nanomechanical Resonators Vibrating at Very High Frequencies.	1
550	ROS- and pH-Responsive Polydopamine Functionalized Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene-Based Nanoparticles as Drug Delivery Nanocarriers with High Antibacterial Activity. <b>2022</b> , 12, 4392	1
549	Novel MXene sensors based on fast healing vitrimers. <b>2022</b> , 29, 101683	0
548	2D MXenes for Fire Retardancy and Fire-Warning Applications: Promises and Prospects. 2212124	3
547	An unprecedented hybrid polyoxometalate based on niobium oligomers: A notable application as redox supercapacitor electrode. <b>2022</b> , 140511	0
546	Spin direction tunable topological transition in two-dimensional frustrate antiferromagnetic triangular lattice T-FeO <sub>2</sub> monolayer. <b>2022</b> , 121, 232405	0
545	2D MXene Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> nanosheets in the development of a mechanically enhanced and efficient antibacterial dental resin composite. 10,	1
544	Vertical Arrangement of Ti <sub>2</sub> CT <sub>x</sub> MXene Nanosheets on Carbon Fibers for High-Performance and Flexible Zn-Ion Supercapacitors.	0
543	A Rising 2D Star: Novel MBenes with Excellent Performance in Energy Conversion and Storage. <b>2023</b> , 15,	0
542	Advances and Challenges in Tuning the Reversibility & Cyclability of Room Temperature Sodium-Sulfur and Potassium-Sulfur Batteries with Catalytic Materials. <b>2022</b> , 101228	0
541	Structural and electronic properties of two-dimensional titanium carbo-oxides. <b>2023</b> , 10, 015019	0
540	Recent Progress of MXene-Based Materials as Anodes in Sodium-Ion Batteries.	0
539	Ammonia Modified MXene/Aniline Copolymers Electrochemical Sensors for Ultrasensitive Sensing Glutathione. <b>2022</b> , 9,	0
538	Bioactive MXene Promoting Angiogenesis and Skeletal Muscle Regeneration through Regulating M2 Polarization and Oxidation Stress. 2201862	1
537	Interface Engineering at Sc <sub>2</sub> C MXene and Germanium Iodine Perovskite Interface: First-Principles Insights. <b>2022</b> , 13, 11801-11810	0
536	Enhanced bioelectrochemical performance by NiCoAl-LDH/MXene hybrid as cathode catalyst for microbial fuel cell. <b>2022</b> ,	0
535	Dehydroxylation-assisted self-crosslinking of MXene-based pervaporation membranes for treating high-salinity water. <b>2022</b> ,	0
534	l-Citrulline-Modified Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene Nanosheets Embedded in Polyacrylamide/Sodium Alginate Hydrogels for Electromagnetic Interference Shielding. <b>2022</b> , 5, 18664-18669	0

533	Design and synthesis of TiO <sub>2</sub> /Ti <sub>3</sub> C <sub>2</sub> composites for highly efficient photocatalytic removal of acetaminophen: The relationships between synthesis parameters, physicochemical properties, and photocatalytic activity. <b>2022</b> ,	0
532	Degradation of bisphenol A in an oxidation system constructed from Mo <sub>2</sub> C MXene and peroxymonosulfate. <b>2022</b> , 5,	0
531	A BF 3 -Doped MXene Dual-Layer Interphase for a Reliable Lithium-Metal Anode. 2210111	0
530	Recent Progress in Computational Design of Single-Atom/Cluster Catalysts for Electrochemical and Solar-Driven N <sub>2</sub> Fixation. <b>2022</b> , 12, 15541-15575	2
529	Nanostructures of silicon anodes in Li-ion batteries. <b>2022</b> , 2399, 012015	0
528	Controllable Synthesis of 2D Materials by Electrochemical Exfoliation for Energy Storage and Conversion Application. 2206702	0
527	In situ construction of heterostructure NiSe <sub>2</sub> /NiO nanoarrays with rich oxygen vacancy on MXene for efficient oxygen evolution. <b>2023</b> ,	0
526	Engineered Two-Dimensional Nanostructures as SERS Substrates for Biomolecule Sensing: A Review. <b>2023</b> , 13, 102	1
525	Electrochemical Micro-Immunosensor of Cubic AuPt Dendritic Nanocrystals/Ti <sub>3</sub> C <sub>2</sub> -MXenes for Exosomes Detection. <b>2023</b> , 14, 138	0
524	Biomass porous carbon/polyethylene glycol shape-stable phase change composites for multi-source driven thermal energy conversion and storage. <b>2023</b> , 6,	0
523	Preparation of Cu <sub>2</sub> O photocatalyst with Ti <sub>3</sub> C <sub>2</sub> MXene as precursor by molten salt method and its hydrogen production performance. <b>2023</b> , 58, 302-316	0
522	Nanolaminated Ternary Transition Metal Carbide (MAX Phase)-Derived Core/Shell Structure Electrocatalysts for Hydrogen Evolution and Oxygen Evolution Reactions in Alkaline Electrolytes. 481-488	0
521	Fiber-optic lead ion sensor based on MXene film integrated Michelson interference structure.	0
520	An MXene-doped PVA/PVP hydrogel-based strain sensor applicable in liquid environment. <b>2023</b> , 32, 025010	0
519	Four-armed host-defense peptidomimetics-augmented vanadium carbide MXene-based microneedle array for efficient photo-excited bacteria-killing. <b>2023</b> , 456, 141121	1
518	First-principles Density Functional Theory Elucidation of the Hydrogen Evolution Reaction on TM-promoted TiC <sub>2</sub> (TM=Fe, Co, Ni, Cu, Ru, Rh, Pd, Ag, Os, Ir, Pt, and Au).	0
517	Subsurface Oxygen Reduction Reaction Activity on Ti <sub>2</sub> N MXene Revealed by In-situ Raman Spectroelectrochemistry.	0
516	In situ growth of gold nanoparticles onto polydopamine-modified MXene to quickly and efficiently degrade dyes. <b>2023</b> , 58, 1026-1043	0

- 515 High-Performance Ultraviolet Photodetectors Enabled by van der Waals Schottky Junction Based on TiO<sub>2</sub> Nanorod Arrays/Au-Modulated Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene. 2211610 0
- 514 Recent Advances for the Synthesis and Applications of Two-dimensional Ternary Layered Materials. 1
- 513 Maximizing Electron Channels Enabled by MXene Aerogel for High-Performance Self-Healable Flexible Electronic Skin. 0
- 512 Review and Perspective on Transition Metal Electrocatalysts Toward Carbon-Neutral Energy. 0
- 511 Vibrational properties of TiVC-based Mxenes by first-principles calculation and experiments. **2023**, 105396 0
- 510 Bidirectionally aligned MXene hybrid aerogels assembled with MXene nanosheets and microgels for supercapacitors. 0
- 509 Ion-Selective Separation Using MXene-Based Membranes: A Review. 341-356 0
- 508 Recovery of oxidized two-dimensional MXenes through high frequency nanoscale electromechanical vibration. **2023**, 14, 0
- 507 Porous 2D Ti<sub>3</sub>C<sub>2</sub> MXene nanosheets sandwiched between imine-based covalent organic frameworks (COFs) for excellent corrosion protective coatings. **2023**, 456, 141001 1
- 506 Constructing Exfoliated, Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene-Dispersed, LaCoO<sub>3</sub> and pC<sub>3</sub>N<sub>4</sub>-Based Nanocomposites with In Situ Grown Titania through Etching/Oxidation for Stimulating Solar H<sub>2</sub> Production. 0
- 505 Enhanced Electromagnetic Shielding and Thermal Management Properties in MXene/Aramid Nanofiber Films Fabricated by Intermittent Filtration. 0
- 504 Nanometer-Thin Stacks of MXenes (Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> and Ta<sub>4</sub>C<sub>3</sub>T<sub>x</sub>) for Applications as Nonlinear Photonic Devices. 0
- 503 MXene-Based Separators for Redox-enhanced Electric Capacitors with Reduced Self-discharge: the Effect of MXene Ageing. 0
- 502 MXenes Functionalized with Macrocyclic Hosts: From Molecular Design to Applications. 1
- 501 A comparative overview of MXenes and metal oxides as cocatalysts in clean energy production through photocatalysis. 0
- 500 Synergistically Boosting the Anchoring Effect and Catalytic Activity of MXenes as Bifunctional Electrocatalysts for Sodium-Sulfur Batteries by Single-Atom Catalysts Engineering. 0
- 499 Preparation of 2D Materials and Their Application in Oil/Water Separation. **2023**, 8, 35 0
- 498 Electrophoretic deposition of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene nanosheets onto high modulus carbon fiber enhances their composites interfacial properties. **2023**, 105429 1

- 497 Polyindole-Stabilized Nanocellulose-Wrapped Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> (MXene) Nanocomposite for Asymmetric Supercapacitor Devices. ○
- 496 SnS<sub>2</sub>/Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> hybrids for conductometric triethylamine detection at room temperature. **2023**, 133360 ○
- 495 Nature-Inspired Interconnected Macro/Meso/Micro-Porous MXene Electrode. 2211199 ○
- 494 Selective Etching of Ti<sub>3</sub>AlC<sub>2</sub> MAX Phases Using Quaternary Ammonium Fluorides Directly Yields Ti<sub>3</sub>C<sub>2</sub>T<sub>z</sub> MXene Nanosheets: Implications for Energy Storage. ○
- 493 Constructing MXene hydrogels and aerogels for rechargeable supercapacitors and batteries. 1
- 492 Benchmarking fundamental gap of Sc<sub>2</sub>C(OH)<sub>2</sub> MXene by many-body methods. ○
- 491 Recent Escalations in MXenes: From Fundamental to Applications. **2023**, 205-239 ○
- 490 Progress on 2D/2D heterostructured hybrid materials for efficient electrocatalysis. ○
- 489 Two-Dimensional Be<sub>2</sub>C with Hepta-Coordinated Carbons: A Highly Stable Direct-Band-Gap Semiconductor Predicted by First-Principles Calculations. ○
- 488 Ultrafast materials synthesis and manufacturing techniques for emerging energy and environmental applications. ○
- 487 Flexible Two-Dimensional MXene-Based Antennas. ○
- 486 Fully Sprayed Metal Oxide Transistors Utilizing Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene Contacts. ○
- 485 Functionalized Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> Nanosheets Based Biosensor for Point-of-Care Detection of SARS-CoV-2 Antigen. ○
- 484 MXenes Antibacterial Properties and Applications: A Review and Perspective. 2206716 1
- 483 Recent advances in and perspectives on pseudocapacitive materials for Supercapacitors: A review. **2023**, 557, 232558 ○
- 482 Self-healing anti-corrosion coatings based on micron-nano containers with different structural morphologies. **2023**, 175, 107381 ○
- 481 High wet-strength, durable composite film with nacre-like structure for moisture-driven actuators. **2023**, 457, 141353 ○
- 480 TiO<sub>2</sub>@Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> heterostructure as an environmentally stable saturable absorber for ultrafast photonics. **2023**, 136, 113417 ○

- 479 Nitrogen-doped Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene prepared by thermal decomposition of ammonium salts and its application in flexible quasi-solid-state supercapacitor. **2023**, 458, 141338 0
- 478 Recent advances in membrane-based materials for desalination and gas separation. **2023**, 387, 135845 1
- 477 Emerging MXene/cellulose composites: Design strategies and diverse applications. **2023**, 458, 141402 0
- 476 Flexible quasi-3D zinc ion microcapacitor based on V<sub>2</sub>O<sub>5</sub>-PANI cathode and MXene anode. **2023**, 457, 141339 0
- 475 Ti<sub>2</sub>CT MXene aerogel based ultra-stable Zn||Nb supercapacitor. **2023**, 38, 101493 2
- 474 Structural, optical, electronic, elastic properties and population inversion of novel 2D carbides and nitrides MXene: A DFT study. **2023**, 289, 116230 0
- 473 Polysulfide-inhibiting, thermotolerant and nonflammable separators enabled by DNA co-assembled CNT/MXene networks for stable high-safety Li||S batteries. **2023**, 251, 110465 1
- 472 Fe<sub>2</sub>O<sub>3</sub>/Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> derived TiO<sub>2</sub> hierarchical heterostructure for the detection of low-concentration H<sub>2</sub>S at room temperature. **2023**, 938, 168662 0
- 471 The rendering from the periodic system of elements on the stability, elastic, and electronic properties of M<sub>2</sub>AC phases. **2023**, 27, 101676 0
- 470 Improved permselectivity and mechanical properties of sulfonated poly dimethyl phenylene oxide cation exchange membrane using MXene nanosheets. **2023**, 549, 116329 0
- 469 Fabrication, microstructure and properties of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene nanosheets reinforced Cu composites. **2023**, 23, 503-514 0
- 468 Tribology of polymer-based nanocomposites reinforced with 2D materials. **2023**, 34, 105397 0
- 467 Improved electrical properties in three phase poly (vinylidene fluoride) nanocomposites with hybrid fillers of titanium dioxide and MXene. **2023**, 34, 105334 0
- 466 Tailoring the crumpled structures of a polyamide membrane with a heterostructural MXene-TiO<sub>2</sub> interlayer for high water permeability. **2023**, 549, 116352 0
- 465 Emerging 2D MXene -based adsorbents for hazardous pollutants removal. **2023**, 549, 116314 0
- 464 Local surface plasmon resonance promotion of photogenerated electrons to hot electrons for enhancing photothermal CO<sub>2</sub> hydrogenation over Ni(OH)<sub>2</sub>/Ti<sub>3</sub>C<sub>2</sub> catalysts. **2023**, 661, 130907 0
- 463 Highly permeable and stable hyperbranched polyethyleneimine crosslinked AgNP@Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene membranes for nanofiltration. **2023**, 670, 121376 0
- 462 MXenes-based nanomaterials for biosensing and biomedicine. **2023**, 479, 215002 1

- 461 A novel electrochemical biosensor based on signal amplification of Au HFGNs/PnBA-MXene nanocomposite for the detection of miRNA-122 as a biomarker of breast cancer. **2023**, 255, 124247 ○
- 460 Influence of N-doped concentration on the electronic properties and quantum capacitance of Hf<sub>2</sub>CO<sub>2</sub> MXene. **2023**, 210, 111826 ○
- 459 APTES-modified graphene oxide loaded with cerium dibutylphosphate as two-dimensional nanocomposites for enhancing corrosion protection properties. **2023**, 213, 110966 ○
- 458 In-situ grown metal-organic framework derived CoS-MXene pseudocapacitive asymmetric supercapacitors. **2023**, 60, 106537 ○
- 457 Functionalized Mo<sub>2</sub>BX<sub>2</sub> (X = H, OH, O) MBenes as a promising sensor, capturer and storage material for environmentally toxic gases: A case. **2023**, 615, 156299 ○
- 456 Ti<sub>3</sub>C<sub>2</sub> MXene supporting platinum nanoparticles as rapid electrons transfer channel and active sites for boosted photocatalytic water splitting over g-C<sub>3</sub>N<sub>4</sub>. **2023**, 636, 21-32 ○
- 455 Surface -O terminated urchin-like TiO<sub>2</sub>/Ti<sub>3</sub>C<sub>2</sub>O (MXene) as high performance photocatalyst: Interfacial engineering and mechanism insight. **2023**, 615, 156343 ○
- 454 A CRISPR-Cas12a powered electrochemical sensor based on gold nanoparticles and MXene composite for enhanced nucleic acid detection. **2023**, 380, 133342 ○
- 453 Synergism and anion-cation dual chemical substitution in heterostructure sprouted on MXene enable high-efficiency and stable overall water splitting. **2023**, 147, 207-216 ○
- 452 Thermoelectric properties of two-dimensional double transition metal MXenes: ScYCT<sub>2</sub> (T=F, OH). **2023**, 176, 111210 ○
- 451 In Situ Synthesis of MXene with Tunable Morphology by Electrochemical Etching of MAX Phase Prepared in Molten Salt. 2203805 ○
- 450 Silicon Nanospheres Supported on Conductive MXene Nanosheets as Anodes for Lithium-Ion Batteries. **2023**, 6, 160-169 ○
- 449 Flexible temperature sensors based on two-dimensional materials for wearable devices. ○
- 448 Hierarchical V<sub>4</sub>C<sub>3</sub>TX@NiO-reduced graphene oxide heterostructure hydrogel and defective reduced graphene oxide hydrogel as free-standing anode and cathode for high-performance asymmetric supercapacitor. ○
- 447 High-temperature ferromagnetism and strong  $\pi$ -conjugation feature in two-dimensional manganese tetranitride. ○
- 446 Synergistic etching and intercalation enables ultrathin Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> and Nb<sub>2</sub>C<sub>2</sub>T<sub>x</sub> MXene nanosheets. ○
- 445 Enhanced Catalytic Effect of Ti<sub>2</sub>C<sub>2</sub>T<sub>x</sub>-MXene on Thermal Decomposition Behavior of Ammonium Perchlorate. **2023**, 16, 344 ○
- 444 Enhanced Intrinsic Anomalous Valley Hall Effect Induced by Spin-Orbit Coupling in MXene Monolayer M<sub>3</sub>N<sub>2</sub>O<sub>2</sub> (M = Y, La). **2023**, 14, 132-138 ○

- 443 Zwitterion-Grafted 2D MXene (Ti<sub>3</sub>C<sub>2</sub>TX) Nanocomposite Membranes with Improved Water Permeability and Self-Cleaning Properties. **2023**, 6, 607-621 ○
- 442 Latest advances and comparative analysis of MXenes as anode and cathode electrodes in secondary batteries. **2023**, 133, 030901 ○
- 441 Rational Design of Electrode Materials for Advanced Supercapacitors: From Lab Research to Commercialization. 2213095 ○
- 440 Thermal and electrical transport conductivities of novel ordered double two-dimensional MXenes via density functional theory. ○
- 439 Nanocarbons (graphene, etc.), MXenes for energy storage applications. **2023**, 275-320 ○
- 438 Two-dimensional MXenes and their applications. **2023**, 18, ○
- 437 Third-Order Optical Nonlinearities of 2D Materials at Telecommunications Wavelengths. **2023**, 14, 307 ○
- 436 Biomimetic MXene membranes with negatively thermo-responsive switchable 2D nanochannels for graded molecular sieving. **2023**, ○
- 435 Nb<sub>2</sub>C MXenes with surface chalcogenation and halogenation as high capacity electrode materials for lithium-ion batteries. ○
- 434 Applications of MXene-Based Single-Atom Catalysts. 2200354 ○
- 433 Lamellar Membrane for Organic Solvent Nanofiltration. **2023**, 65-102 ○
- 432 Advanced materials for smart devices. **2023**, 457-485 ○
- 431 The synergistic effect of Ti and Nb in TiNbC leads to enhanced anode performance for Na-ion batteries - first-principles calculations. **2023**, 98, 025710 ○
- 430 Green and scalable electrochemical routes for cost-effective mass production of MXenes for supercapacitor electrodes. ○
- 429 Small-size Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene nanosheets coated with metal-polyphenol nanodots for enhanced cancer photothermal therapy and anti-inflammation. **2023**, ○
- 428 Two-dimensional nanomaterial MXenes for efficient gas separation: a review. ○
- 427 Performance and application of Si/Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> (MXene) composites in lithium ion battery. **2023**, 5, 014020 ○
- 426 Hydrofluoric Acid-Free Synthesis of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene Nanostructures for Energy Applications. **2023**, 6, 1985-1995 ○



- 425 Two-dimensional-Ti<sub>3</sub>C<sub>2</sub> magnetic nanocomposite for targeted cancer chemotherapy. 11, 0
- 424 Developments in two-dimensional material-based nanoinks for electronics. **2023**, 277-302 0
- 423 All-Inkjet-Printed Ti<sub>3</sub>C<sub>2</sub> MXene Capacitor for Textile Energy Storage. **2023**, 13, 230 0
- 422 System design of large-area vertical photothermoelectric detectors based on carbon nanotube forests with MXene electrodes. 0
- 421 MXene-Based Nanomaterials for Multifunctional Applications. **2023**, 16, 1138 1
- 420 Theoretical study of single-nonmetal-modified V<sub>2</sub>CO<sub>2</sub> MXene as an efficient electrocatalyst for overall water splitting. **2023**, 0
- 419 Highly Flexible Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene/Waterborne Polyurethane Membranes for High-Efficiency Terahertz Modulation with Low Insertion Loss. **2023**, 15, 7592-7601 0
- 418 Two-dimensional sandwich-like heterostructures of amorphous VO<sub>x</sub>/MXene as freestanding cathode materials with superior electrochemical performance for aqueous zinc-ion batteries. **2023**, 34, 0
- 417 Robust and Elastic Bioinspired MXene-Coated Foams with Enhanced Energy Storage and Conversion Capabilities. 2201611 0
- 416 Cathode materials for lithium-sulfur battery: a review. 1
- 415 High-Voltage MXene-Based Supercapacitors: Present Status and Future Perspectives. 2201609 0
- 414 AgPd nanocages sandwiched between a MXene nanosheet and PDA layer for photothermally improved catalytic activity and antibacterial properties. 0
- 413 Nanofluids for CO<sub>2</sub> capture. **2023**, 89-135 0
- 412 Interfacial Solid-State Mediator-Based Z-Scheme Heterojunction TiO<sub>2</sub>@Ti<sub>3</sub>C<sub>2</sub>/MgIn<sub>2</sub>S<sub>4</sub> Microflower for Efficient Photocatalytic Pharmaceutical Micropollutant Degradation and Hydrogen Generation: Stability, Kinetics, and Mechanistic Insights. 0
- 411 Construction of Co-decorated 3D nitrogen doped-carbon nanotube/Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub>-MXene as efficient hydrogen evolution electrocatalyst. **2023**, 0
- 410 Recent Advances and Challenges Toward Application of Fibers and Textiles in Integrated Photovoltaic Energy Storage Devices. **2023**, 15, 1
- 409 Ti<sub>3</sub>C<sub>2</sub> nanosheets disrupt spermatogenesis in male mice via alterations in proliferation and apoptosis of spermatogonia mediated by the ATM/p53 signaling pathway. 0
- 408 Constructing Flexible Film Electrode with Porous Layered Structure by MXene/SWCNTs/PANI Ternary Composite for Efficient Low-Grade Thermal Energy Harvest. 2209806 0

- 407 Applications of MXene-based memristors in neuromorphic intelligence applications. 1-19 ○
- 406 3D printing of 2D nano-inks for multifarious applications. **2023**, 91-124 ○
- 405 Application of 2D MXene in Organic Electrode Materials for Rechargeable Batteries: Recent Progress and Perspectives. 2210184 ○
- 404 Fundamentals of supercapacitors. **2023**, 83-100 ○
- 403 Visibly transparent supercapacitors. ○
- 402 Visual Electrochemiluminescence Biosensor Chip Based on Distance Readout for Deoxynivalenol Detection. **2023**, 95, 2942-2948 ○
- 401 Defect Dipole-Induced HfO<sub>2</sub>-Coated Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene/Nickel Ferrite Nanocomposites for Enhanced Microwave Absorption. **2023**, 6, 1839-1848 ○
- 400 Recent Advances in the Synthesis of MXene Quantum Dots. ○
- 399 One 3D aerogel wearable pressure sensor with ultrahigh sensitivity, wide working range, low detection limit for voice recognition and physiological signal monitoring. ○
- 398 Anion Storage of MXenes. 2201440 1
- 397 MXenes for energy applications. **2023**, 475-502 ○
- 396 MXene-Functionalized Ferroelectric Nanocomposite Membranes with Modulating Surface Potential Enhance Bone Regeneration. ○
- 395 Ga<sub>2</sub>O<sub>3</sub>/MXene Nanowire Networks with Enhanced Responsivity for Deep-UV Photodetection. **2023**, 6, 2048-2062 1
- 394 Versatile Electronic Textile Enabled by a Mixed-Dimensional Assembly Strategy. 2208134 ○
- 393 Structural Stability and Electronic Transport Properties of Nb<sub>2</sub>C-MXenes under High Pressure. 2201071 ○
- 392 An Inverted Layer-by-Layer Process to Enable Ultrasoft MXene-Ag Nanowire Hybrid Electrode for Organic Photovoltaics. ○
- 391 Role of Oxygen in the Ti<sub>3</sub>AlC<sub>2</sub> MAX Phase in the Oxide Formation and Conductivity of Ti<sub>3</sub>C<sub>2</sub>-Based MXene Nanosheets. ○
- 390 Super-elastic and mechanically durable MXene-based nanocomposite aerogels enabled by interfacial engineering with dual crosslinking strategy. ○

- 389 From surface loading to precise confinement of polyoxometalates for electrochemical energy storage. **2023**, 108194 ○
- 388 A sensitive electrochemical sensor based on 3D porous melamine-doped rGO/MXene composite aerogel for the detection of heavy metal ions in the environment. **2023**, 256, 124294 ○
- 387 Influence of C-vacancy-line defect on electronic and optical properties and quantum capacitance of Ti<sub>2</sub>CO<sub>2</sub> MXene: A first-principles study. **2023**, 176, 111254 ○
- 386 Quantum capacitance modulation of MXenes by metal atoms adsorption. **2023**, 618, 156586 ○
- 385 Advanced growth of 2D MXene for electrochemical sensors. **2023**, 222, 115279 ○
- 384 Ta<sub>2</sub>C MXene: Nonlinear optical properties and application in femtosecond fiber laser. **2023**, 161, 109178 ○
- 383 Effects of surface compositions and interlayer distance on electrochemical performance of Mo<sub>2</sub>CTx MXene as anode of Li-ion batteries. **2023**, 176, 111238 1
- 382 Recent trends in MXene-based material for biomedical applications. **2023**, 222, 115337 ○
- 381 Surface-functionalized three-dimensional MXene supports to boost the hydrogen evolution activity of Pt catalysts in alkaline media. **2023**, 11, 5328-5336 ○
- 380 Unveiling the key intermediates in electrocatalytic synthesis of urea with CO<sub>2</sub> and N<sub>2</sub> coupling reactions on double transition-metal MXenes. **2023**, 11, 6428-6439 ○
- 379 S- and Cl-functionalized Nb<sub>2</sub>C MXenes as novel anode materials for sodium-ion batteries: a first-principles study. **2023**, 47, 6412-6419 ○
- 378 CNT/MXene Ultralight Membranes: Fabrication, Surface Nano/Microstructure, 2D/3D Stacking Architecture, Ion-Transport Mechanism, and Potential Application as Interlayer for Li/D<sub>2</sub> Batteries. ○
- 377 Preparation and formation mechanism of few-layer black phosphorene through liquid pulsed discharge. **2023**, 11, 3652-3660 ○
- 376 Nanosensors for detection of volatile organic compounds. **2023**, 273-296 ○
- 375 Advances in the understanding of the structure-performance relationships of 2D material catalysts based on electron microscopy. ○
- 374 Recent advances in the synthesis and electrocatalytic application of MXene materials. **2023**, 59, 3968-3999 ○
- 373 MXene-based composites against antibiotic-resistant bacteria: current trends and future perspectives. **2023**, 13, 9665-9677 ○
- 372 Recent Progress in Emerging Novel MXenes Based Materials and their Fascinating Sensing Applications. 2206147 ○

- 371 Reverse saturable absorption in Ti<sub>3</sub>C<sub>2</sub> MXene nanosheets for dissipative soliton resonance mode-locking operation in Er-doped fiber laser. **2023**, 136, 113463 ○
- 370 Enabling the transition to ductile MAX phases and the exfoliation to MXenes via tuning the A element. **2023**, 106, 3765-3776 ○
- 369 Ferroelectric Materials and Their Applications in Activation of Small Molecules. **2023**, 8, 6164-6174 ○
- 368 MXene Derivatives for Energy Storage and Conversions. 2201559 ○
- 367 A Single Electronic Tattoo for Multisensory Integration. 2201566 ○
- 366 Label-free electrochemical aptasensor based on gold nanoparticles/titanium carbide MXene for lead detection with its reduction peak as index signal. **2023**, 6, ○
- 365 Rational design of the cathode catalysts for high performance lithium-sulfur batteries. **2023**, 4, 011308 ○
- 364 Harnessing protein sensing ability of electrochemical biosensors via a controlled peptide receptor-electrode interface. **2023**, 21, ○
- 363 Cleaning the environment with MXenes. **2023**, 48, 271-282 ○
- 362 Unraveling the Electrochemical Mechanism in Tin Oxide/MXene Nanocomposites as Highly Reversible Negative Electrodes for Lithium-Ion Batteries. 2202484 ○
- 361 Pseudocapacitance of Cl-Terminated MXene Nanosheets for Efficient Chloride-Ion Hybrid Capacitors. **2023**, 37, 5607-5612 ○
- 360 Surface termination dependent optical characteristics of MXene nanoflakes. **2023**, 29, 101447 ○
- 359 Ionic Flexible Mechanical Sensors: Mechanisms, Structural Engineering, Applications, and Challenges. ○
- 358 Heterostructures of MoO<sub>3</sub> nanobelts assembled on delaminated V<sub>4</sub>C<sub>3</sub>T MXene nanosheets for supercapacitors with excellent room/high temperature performance. **2023**, 446, 142070 ○
- 357 2023 roadmap for potassium-ion batteries. **2023**, 5, 021502 ○
- 356 MXenes [Versatile 2D materials for identification of biomarkers and contaminants in large scale environments [A review. **2023**, 115900 ○
- 355 MoSn<sub>2</sub>Se<sub>4</sub>-decorated MXene/Functionalized RGO nanohybrid for ultrastable Supercapacitor and Oxygen Evolution Catalyst. **2023**, 100337 ○
- 354 Sandwich-Structured Quasi-Solid Polymer Electrolyte Enables High-Capacity, Long-Cycling, and Dendrite-Free Lithium Metal Battery at Room Temperature. ○

- 353 Application of Two-Dimensional MXene materials in sensors. **2023**, 228, 111867 ○
- 352 Rational design of flower-like MnO<sub>2</sub>/Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> composite electrode for high performance supercapacitors. **2023**, 34, 255602 ○
- 351 Efficient Pervaporation for Ethanol Dehydration: Ultrasonic Spraying Preparation of Polyvinyl Alcohol (PVA)/Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> Nanosheet Mixed Matrix Membranes. **2023**, 13, 430 ○
- 350 Dual modification of EVA by long chain phosphaphenanthrene grafted MXene and black phosphorene nanosheets for simultaneously enhanced thermal stability and flame retardancy. **2023**, 664, 131198 ○
- 349 Preparation of Mo<sub>2</sub>CT MXene as co-catalyst for H<sub>2</sub> production by etching of pure/mixed HBr solution. **2023**, 109922 ○
- 348 A theoretical study of 0D Ti<sub>2</sub>CO<sub>2</sub>/2D g-C<sub>3</sub>N<sub>4</sub> Schottky-junction for photocatalytic hydrogen evolution. **2023**, 616, 156562 ○
- 347 Design of PDMS/SiO<sub>2</sub>@MXene composites with floatable interlayer structure for the electromagnetic shielding behavior improvement. **2023**, 461, 141853 ○
- 346 Additively manufactured MAX- and MXene-composite scaffolds for bone regeneration- recent advances and future perspectives. **2023**, 225, 113282 ○
- 345 Recent progress of MXene-based membranes for high-performance and efficient gas separation. **2023**, 135, 109883 ○
- 344 First-principles study of electronic and optical properties of NH<sub>3</sub>-adsorbed Sc<sub>2</sub>CO<sub>2</sub> monolayer and its application in gas sensors. **2023**, 24, 173-184 ○
- 343 Photoelectrocatalytic CO<sub>2</sub> reduction with ternary nanocomposite of MXene (Ti<sub>3</sub>C<sub>2</sub>)-Cu<sub>2</sub>O-Fe<sub>3</sub>O<sub>4</sub>: Comprehensive utilization of electrolyte and light-wavelength. **2023**, 464, 142716 ○
- 342 Tuning the pore size distribution of Ti<sub>3</sub>C<sub>2</sub>T porous film for high capacity supercapacitor electrode. **2023**, 936, 117358 ○
- 341 A holistic review of MXenes for solar device applications: Synthesis, characterization, properties and stability. **2023**, 39, 100493 ○
- 340 Recent advances in MXene-based membrane for solar-driven interfacial evaporation desalination. **2023**, 464, 142508 ○
- 339 Preparation of high electromagnetic interference shielding and humidity responsivity composite film through modified Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene cross-linking with sodium alginate. **2023**, 236, 123939 ○
- 338 MXenes: from past to future perspectives. **2023**, 463, 142351 ○
- 337 Ti<sub>3</sub>C<sub>2</sub>-MXene ionogel with long-term stability and high sensitivity for wearable piezoresistive sensors. **2023**, 665, 131202 ○
- 336 Thinking green with 2-D and 3-D MXenes: Environment friendly synthesis and industrial scale applications and global impact. **2023**, 178, 113238 ○

- 335 Two-dimensional materials for boosting the performance of perovskite solar cells: Fundamentals, materials and devices. **2023**, 153, 100727 ○
- 334 Phase Inversion-Based foam hydrogels for highly efficient Solar-Powered interfacial desalination. **2023**, 464, 142409 ○
- 333 Bilayer metal-organic frameworks/MXene/nanocellulose paper with electromagnetic double loss for absorption-dominated electromagnetic interference shielding. **2023**, 464, 142517 ○
- 332 MXene/carbon composites for electrochemical energy storage and conversion. **2023**, 22, 100350 ○
- 331 Recent advances of cathode materials for zinc-ion hybrid capacitors. **2023**, 109, 108290 ○
- 330 MXene by regulating etching conditions enhanced UV resistance of SBS modified asphalt: Evaluating asphalt photo-oxidation and SBS degradation. **2023**, 377, 131006 ○
- 329 Effects of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene on structure, morphology, fluorescence and temperature sensitive properties of Eu<sup>3+</sup> doped 8YSZ powder. **2023**, 258, 119815 ○
- 328 Composite nanoarchitectonics with TiO<sub>2</sub> nanocrystals and superior thin Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> nanosheets towards efficient NO removal. **2023**, 227, 115793 ○
- 327 MXenes for perovskite solar cells: Progress and prospects. **2023**, 81, 443-461 ○
- 326 Graphite-ring-stacked carbon nanotubes synthesized during the rescue of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene for dual-peak electromagnetic wave absorption. **2023**, 945, 169342 ○
- 325 Fabrication of highly efficient Rh-doped cobalt-bickel-layered double hydroxide/MXene-based electrocatalyst with rich oxygen vacancies for hydrogen evolution. **2023**, 640, 338-347 ○
- 324 Multi-weather full-body triboelectric garments for personalized moisture management and water energy acquisition. **2023**, 110, 108359 ○
- 323 Advances in MXenes synthesis and MXenes derived electrocatalysts for oxygen electrode in metal-air batteries: A review. **2023**, 292, 116400 ○
- 322 Ion transport phenomena in electrode materials. **2023**, 4, 021302 ○
- 321 The effect of electrode thickness and electrode/electrolyte interface on the capacitive deionization behavior of the Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene electrodes. **2023**, 947, 169701 ○
- 320 Recent advances and key opportunities on in-plane micro-supercapacitors: From functional microdevices to smart integrated microsystems. **2023**, 81, 410-431 ○
- 319 Comprehensive performance evaluation of Ti<sub>3</sub>C<sub>2</sub> MXene/TiN composite nanofluids for photo thermal conversion. **2023**, 228, 120486 ○
- 318 Application of titanium carbide/nitride (MXene)-based NPs in adsorption of radionuclides and heavy metal ions for wastewater remediation: A review. **2023**, 7, 100326 ○

- 3<sup>17</sup> Fabrication of a SAPNI/I-Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> 3D structure hybrid for the enhancement of higher barrier and self-passivation coatings. **2023**, 946, 169371 ○
- 3<sup>16</sup> Multi-ion competition mechanism within MXene interlayer and Li ion intercalated electrode function. **2023**, 623, 157043 ○
- 3<sup>15</sup> Photocatalytic oxygen evolution and antibacterial biomimetic repair membrane for diabetes wound repair via HIF1- $\beta$  pathway. **2023**, 20, 100616 ○
- 3<sup>14</sup> Involvement of metal organic frameworks in wearable electrochemical sensor for efficient performance. **2023**, 38, e00200 ○
- 3<sup>13</sup> Visible light response in 2D QBi (Q=Si, Ge and Sn) monolayer semiconductors: A DFT based study. **2023**, 35, 105886 ○
- 3<sup>12</sup> Synthesis of 2D/2D structural Ti<sub>3</sub>C<sub>2</sub> MXene/g-C<sub>3</sub>N<sub>4</sub> via the Schottky junction with metal oxides: Photocatalytic CO<sub>2</sub> reduction with a cationic scavenger. **2023**, 32, 101814 ○
- 3<sup>11</sup> Manipulation of contact type in MoS<sub>2</sub>/Ti<sub>3</sub>C<sub>2</sub> heterostructures via the functionalization of chalcogens and halogens. **2023**, 38, 102855 ○
- 3<sup>10</sup> Rational design of bimetallic MXene solid solution with High-Performance electrocatalytic N<sub>2</sub> reduction. **2023**, 640, 67-77 ○
- 3<sup>09</sup> Carboxymethylcellulose (CMC)/glutaraldehyde (GA)-modified Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> membrane and its efficient ion sieving performance. **2023**, 675, 121541 ○
- 3<sup>08</sup> Exploring the potential of MXene nanoslit for water desalination through molecular dynamics simulations. **2023**, 556, 116560 ○
- 3<sup>07</sup> A high performance flexible cotton-based supercapacitor prepared by in-situ polyaniline and MXene coating. **2023**, 62, 106803 ○
- 3<sup>06</sup> Nanocomposite having hierarchical architecture of MXene-WO<sub>3</sub> nanorod@rGO sponge and porous carbon for cathode and anode materials for high-performance flexible all-solid-state asymmetric supercapacitor device. **2023**, 623, 157042 ○
- 3<sup>05</sup> Biaxial strain tunable electronic properties, photocatalytic properties and quantum capacitance of Sc<sub>2</sub>CO<sub>2</sub> MXenes. **2023**, 212, 112016 ○
- 3<sup>04</sup> Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub>-based composite coating on AZ31B Mg alloy surface for improved anti-corrosion/wear-reducing properties. **2023**, 35, 105664 ○
- 3<sup>03</sup> Two-dimensional MXene with multidimensional carbonaceous matrix: A platform for general-purpose functional materials. **2023**, 135, 101105 ○
- 3<sup>02</sup> In-situ growth of Cs<sub>2</sub>AgBiBr<sub>6</sub> perovskite nanocrystals on Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene nanosheets for enhanced photocatalytic activity. **2023**, 621, 156877 ○
- 3<sup>01</sup> Two-dimensional titanium nitride as a highly active electrocatalyst for ammonia production via NO electroreduction. **2023**, 35, 105715 ○
- 3<sup>00</sup> Enzyme activity termination by titanium carbide nanosheet and its application for the detection of deoxyribonuclease I. **2023**, 259, 124533 ○

- 299 Dual char-forming strategy driven MXene-based fire-proofing epoxy resin coupled with good toughness. **2023**, 640, 434-444 ○
- 298 Functionalized Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene with layer-dependent band gap for flexible NIR photodetectors. **2023**, 10, 021402 ○
- 297 Molecular simulation study of 2D MXene membranes for organic solvent nanofiltration. **2023**, 677, 121623 ○
- 296 Grain-interior planar defects induced by heteroatom monolayer. **2023**, 2, 100130 ○
- 295 Application of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> in a C band Er-doped fiber laser. **2023**, 163, 109455 ○
- 294 Interfacial hydrogen bonding-involved electrocatalytic ammonia synthesis on OH-terminated MXene. **2023**, 328, 122473 ○
- 293 Advances in the synthesis and applications of 2D MXene-metal nanomaterials. **2023**, 38, 102873 ○
- 292 A state-of-art review on 2D material-boosted metal oxide nanoparticle electrodes: Supercapacitor applications. **2023**, 65, 107335 ○
- 291 Insights into the impact of interlayer spacing on MXene-based electrodes for supercapacitors: A review. **2023**, 65, 107341 ○
- 290 Metal-free g-C<sub>3</sub>N<sub>5</sub> photocatalyst coupling MXenes Ti<sub>3</sub>C<sub>2</sub> for tetracycline degradation: Insight for electron transfer mechanism, degradation mechanism and photothermal effect. **2023**, 951, 169864 ○
- 289 Aptamer modified Ti<sub>3</sub>C<sub>2</sub> nanosheets application in smart targeted photothermal therapy for cancer. **2023**, 14, ○
- 288 Theoretical study of thermodynamic and magnetic properties of transition metal carbide and nitride MAX phases. **2023**, 7, ○
- 287 Prominently improved CO<sub>2</sub>/N<sub>2</sub> separation efficiency by ultrathin-ionic-liquid-covered MXene membrane. **2023**, 311, 123296 ○
- 286 Time-of-flight photoconductivity investigation of high charge carrier mobility in Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXenes thin-film. **2023**, 135, 109879 ○
- 285 A chemically tailored capacitive deionization system for the enhanced removal of cesium from process water. **2023**, 316, 123818 ○
- 284 Ultra-sensitive specific detection of nucleic acids in pathogenic infections by Ta<sub>2</sub>C-MXene sensitization-based ultrafine plasmon spectroscopy combs. **2023**, 387, 133785 ○
- 283 Electronic metal support interaction directed electron-deficient nanoparticulate Ru on Ti<sub>3</sub>C<sub>2</sub> MXene-derived TiO<sub>2</sub> nanoflowers for robust benzene semi-hydrogenation. **2023**, 624, 157159 ○
- 282 Low-cost synthesis of non-noble Ni-based MXene (Ni<sub>3</sub>C) nanosheets decorated nickel foam as a bifunctional electrocatalyst for alkaline-acid urea-nitrate fuel cell. **2023**, 302, 127719 ○



- 281 Advancements in MXene-polymer composites for high-performance supercapacitor applications. **2023**, 63, 106942 ○
- 280 Development and applications of electrospun nanofiber-based triboelectric nanogenerators. **2023**, 112, 108444 ○
- 279 A label-free ultrasensitive microRNA-21 electrochemical biosensor based on MXene (Ti3C2)-reduced graphene oxide-Au nanocomposites. **2023**, 190, 108656 ○
- 278 Spin transport property of Cr2C based nanoscale devices: A first principle study. **2023**, 45, 106228 ○
- 277 Recent advances of two-dimensional material additives in hybrid perovskite solar cells. **2023**, 34, 172001 ○
- 276 A novel nonvolatile memory device based on oxidized Ti3C2Tx MXene for neurocomputing application. **2023**, 205, 365-372 ○
- 275 Flexible MXene/aramid nanofiber nanocomposite film with high thermal conductivity and flame retardancy. **2023**, 186, 111847 1
- 274 Patterned MXene-enabled switchable health monitoring and electromagnetic protection for architecture. **2023**, 31, 100988 1
- 273 Vertical porous Ti3CNTx/rGO hybrid aerogels with enhanced capacitive performance. **2023**, 459, 141528 ○
- 272 Efficient electrocatalytic CO2 reduction on Ti3C2O2 surfaces: The effect of single-atom TM anchoring on product selectivity. **2023**, 616, 156492 1
- 271 Recycling and second life of MXene electrodes for lithium-ion batteries and sodium-ion batteries. **2023**, 60, 106625 ○
- 270 Fabricating Aptamer-functionalized Ti3C2 therapeutic nanoplatform for targeted chemo-photothermal therapy of cancer. **2023**, 226, 111656 1
- 269 Theoretical study of M2CO2 MXenes stability and adsorption properties for heavy metals ions removal from water. **2023**, 220, 112042 1
- 268 Dual-functional electrostatic self-assembly nanoparticles enable suppressed defects and improved charge transport in perovskite optoelectronic devices. **2023**, 459, 141559 ○
- 267 Probing photoexcited free carrier dynamics of two-dimensional MXene, Nb2C, using ultrafast terahertz spectroscopy. **2023**, ○
- 266 Cooperative effect of strain and electric field on Schottky barriers in van der Waals heterostructure of graphene and hydrogenated phosphorus carbide. **2023**, 148, 115665 ○
- 265 Elastic-plastic deformation and organization analysis for Al 7075 friction stir welding joints based on MXene/SWCNT sensor. **2023**, 352, 114203 ○
- 264 Pt/Ti3C2Tx nanozyme-amplified colorimetric lateral flow biosensor for dual-readout detection of HIV-DNA. **2023**, 381, 133444 ○

- 263 Deep ultraviolet optical limiting materials: 2D Ti<sub>3</sub>C<sub>2</sub> and Ti<sub>3</sub>AlC<sub>2</sub> nanosheets. **2023**, 11, 2355-2363 ○
- 262 Hybrid pseudocapacitive sodium titanate/rGO and MXene/rGO nanocomposite electrodes in capacitive deionization. **2023**, 551, 116435 ○
- 261 Atomically selective oxidation of (Ti,V) MXene to construct TiO<sub>2</sub>@TiVCT heterojunction for high-performance Li-ion batteries. **2023**, 617, 156575 ○
- 260 Neural modulation with photothermally active nanomaterials. **2023**, 1, 193-207 1
- 259 2D Transition Metal Carbides (MXenes) for Third Order Nonlinear Optics: Status and Prospects. 2200733 ○
- 258 Predicting chemical exfoliation: fundamental insights into the synthesis of MXenes. **2023**, 7, ○
- 257 Ab-initio study of the optical properties of 2D Y<sub>n+1</sub>C<sub>n</sub> (n = 1, 2, and 3) MXenes and bulk of YC. **2023**, 1222, 114053 ○
- 256 Performance study of g-C<sub>3</sub>N<sub>4</sub>/carbon black/BiOBr@Ti<sub>3</sub>C<sub>2</sub>/MoS<sub>2</sub> photocatalytic fuel cell for the synergistic degradation of different types of pollutants. ○
- 255 MXene-based nanocomposite for electrocatalytic reduction of CO<sub>2</sub>: Experimental and theoretical results. **2023**, 38, 100481 ○
- 254 Ultra-sensitive, Multi-directional Flexible Strain Sensors Based on an MXene Film with Periodic Wrinkles. **2023**, 15, 8345-8354 ○
- 253 MXene polymeric nanoarchitectures mechanical, deformation, and failure mechanism: A review. **2023**, 62, 443-466 ○
- 252 Battery Cycle Stability in Additive-free MAX(Ti<sub>3</sub>AlC<sub>2</sub>) Li-ion Battery Anode. **2023**, 61, 84-90 ○
- 251 Scalable synthesis of 2D Ti<sub>2</sub>CT<sub>x</sub> MXene and molybdenum disulfide composites with excellent microwave absorbing performance. ○
- 250 Anti-corrosion, self-healing and environmental-friendly Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub>/MgAl-LDH @epoxy composite organic coating for Mg alloy protection. **2023**, 58, 3283-3306 ○
- 249 First-principles prediction of configurational order-disorder phase transition in Mo<sub>2</sub>(Ti<sub>1-x</sub>V<sub>x</sub>)C<sub>2</sub> MXene alloys. **2023**, 2431, 012041 ○
- 248 Surface and Interface Regulation of MXenes: Methods and Properties. 2201530 ○
- 247 MXene: fundamentals to applications in electrochemical energy storage. **2023**, 18, ○
- 246 Promoting 2D Material Photodetectors by Optical Antennas beyond Noble Metals. 2200079 ○

- 245 Facile synthesis of V<sub>2</sub>CT<sub>x</sub>@RGO composite aerogel via hydrothermal reaction and its dye adsorption performance. **2023**, 34, ○
- 244 Fabrication and characterization of MXene/carbon composite-based nanofibers (MXene/CNFs) membrane: An efficient adsorbent material for removal of Pb<sup>+2</sup> and As<sup>+3</sup> ions from water. **2023**, 191, 462-471 ○
- 243 Core-shell mechanism of etching V<sub>2</sub>AlC MAX phase to V<sub>2</sub>CT<sub>z</sub> MXenes. **2023**, 38, 1527-1542 ○
- 242 Electrochemical characterization of Ti<sub>3</sub>C<sub>2</sub>T MXene prepared via a molten salt etching route in an acetonitrile-based electrolyte. **2023**, 148, 107453 ○
- 241 Strain Engineering of Sc<sub>2</sub>CB<sub>r2</sub> MXene Monolayer by First Principle Approach. **2023**, ○
- 240 A novel Sn/SnO<sub>x</sub> Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> nanosheet for adsorptive strontium removal in aqueous solution. **2023**, 577, 154323 ○
- 239 Densely Packed Fiber Electrodes Composed of Liquid Crystalline MXenes for High-Areal-Density Supercapacitors. **2023**, 11, ○
- 238 Finding stable multi-component materials by combining cluster expansion and crystal structure predictions. **2023**, 9, ○
- 237 Electrocatalysts for Hydrogen Evolution Reaction. **2023**, 115-146 ○
- 236 Status and prospects of MXene-based nanoelectronic devices. **2023**, 6, 800-837 ○
- 235 W<sub>2</sub>N-MXene composite anode catalyst for efficient microbial fuel cells using domestic wastewater. **2023**, 461, 141821 ○
- 234 Theoretical study of phonon and electron transport in low band gap Janus MXene monolayer Mo<sub>2</sub>WC<sub>2</sub> for thermoelectric application. **2023**, 122, 063902 ○
- 233 In-situ-foaming synthesis of cheese-like Fe<sub>3</sub>S<sub>4</sub>/Ti<sub>3</sub>C<sub>2</sub>T electrode material with both high energy and power density for Al/Zn-ion supercapacitors. **2023**, 23, 3547-3556 ○
- 232 Freeing Fluoride Termination of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> via Electrochemical Etching for High-Performance Capacitive Deionization. ○
- 231 Emerging trends towards MXene-based electrolytes for electrochemical applications. **2023**, 290, 116355 ○
- 230 Reasonable Design of MXene-Supported Dual-Atom Catalysts with High Catalytic Activity for Hydrogen Evolution and Oxygen Evolution Reaction: A First-Principles Investigation. **2023**, 16, 1457 ○
- 229 Boosting photocatalytic performance of Cd<sub>x</sub>Zn<sub>1-x</sub>S for H<sub>2</sub> production by Mo<sub>2</sub>C MXene with large interlayer distance. **2023**, 11, 5851-5863 ○
- 228 Tribological behaviour of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> nano-sheets: Substrate-dependent tribo-chemical reactions. ○

- 227 Efficient degradation of tetracycline by a novel nanoconfinement structure Cu<sub>2</sub>O/Cu@MXene composite. **2023**, 448, 130995 ○
- 226 Amperometric determination of salivary thiocyanate using electrochemically fabricated poly (3, 4-ethylenedioxythiophene)/MXene hybrid film. **2023**, 449, 130979 ○
- 225 Challenges associated with hydrogen storage systems due to the hydrogen embrittlement of high strength steels. **2023**, ○
- 224 Electrochemical production of two-dimensional atomic layer materials and their application for energy storage devices. **2023**, 4, 011306 ○
- 223 Ice-Crystal-Templated Accordion-Like Cellulose Nanofiber/MXene Composite Aerogels for Sensitive Wearable Pressure Sensors. **2023**, 11, 3208-3218 ○
- 222 Assessing the Surface Chemistry of 2D Transition Metal Carbides (MXenes): A Combined Experimental/Theoretical <sup>13</sup>C Solid State NMR Approach. ○
- 221 Fabrication of MXene transparent conductive films via transfer process. **2023**, 16, 037001 ○
- 220 Emerging Trends and Recent Progress of MXene as a Promising 2D Material for Point of Care (POC) Diagnostics. **2023**, 13, 697 ○
- 219 Progress in 2D materials based Nanolubricants: A review. **2023**, 38, 100485 1
- 218 Modulation of Surface TiD Species in 2D-Ti<sub>3</sub>C<sub>2</sub>TX MXene for Developing a Highly Efficient Electrocatalyst for Hydrogen Evolution and Methanol Oxidation Reactions. **2023**, 39, 2995-3005 ○
- 217 Highly efficient, remarkable sensor activity and energy storage properties of MXenes and borophene nanomaterials. **2023**, 100392 ○
- 216 Theoretical Analysis of Magnetic Coupling in the Ti<sub>2</sub>C Bare MXene. **2023**, 127, 3706-3714 ○
- 215 Tunable band gap by chemical functionalization of the Sr<sub>2</sub>S monolayer from first-principles calculations. **2023**, 150, 110529 ○
- 214 Cytocompatibility of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene with Red Blood Cells and Human Umbilical Vein Endothelial Cells and the Underlying Mechanisms. **2023**, 36, 347-359 ○
- 213 First-principles study for discovery of novel synthesizable 2D high-entropy transition metal carbides (MXenes). **2023**, 11, 5681-5695 ○
- 212 Superior Anticorrosion Performance of Well-Dispersed MXene-Polymer Composite Coatings Enabled by Covalent Modification and Ambient Electron-Beam Curing. **2023**, 15, 11099-11110 ○
- 211 Recent Progress and Challenges in MXene-Based Phase Change Material for Solar and Thermal Energy Applications. **2023**, 16, 1977 1
- 210 Etching Exfoliated Ti<sub>2</sub>C<sub>T<sub>x</sub></sub> Nanosheets for Photoelectrochemical Photodetectors with Enhanced Performance and Alkaline Stability. **2023**, 52, 3029-3037 ○

- 209 Anisotropic and super-strong conductive hydrogels enabled by mechanical stretching combined with the Hofmeister effect. **2023**, 11, 8038-8047 ○
- 208 Flexible, Stretchable, and Transparent MXene Nanosheet/Thermoplastic Polyurethane Films for Multifunctional Heating and Electromagnetic Interference Shielding. **2023**, 6, 3395-3404 ○
- 207 Beyond Ti-based MXenes: A review of emerging non-Ti based metal-MXene structure, properties, and applications. **2023**, 63, 313-338 ○
- 206 Constructing P-doped self-assembled V<sub>2</sub>C MXene/NiCo-layered double hydroxide hybrids toward advanced lithium storage. **2023**, 4, 1523-1533 ○
- 205 Recent advances in MXenes-based glucose biosensors. **2023**, 108241 ○
- 204 Enhancing the Chemical Stability of MXene Through Synergy of Hydrogen Bond and Coordination Bond in Aqueous Solution. **2023**, 7, ○
- 203 Anchoring Ni<sub>3</sub>S<sub>2</sub>/Cr(OH)<sub>3</sub> hybrid nanospheres on Ti<sub>3</sub>C<sub>2</sub>@NF dual substrates for efficient urea electrolysis by ion exchange. ○
- 202 Advances in Humidity Nanosensors and Their Application: Review. **2023**, 23, 2328 ○
- 201 Building porphyrin-based MOFs on MXenes for ppb-level NO sensing. **2023**, 11, 6966-6977 ○
- 200 MXene-Decorated Smart Textiles with the Desired Mid-Infrared Emissivity for Passive Personal Thermal Management. **2023**, 15, 12032-12040 ○
- 199 Ultra-high performance humidity sensor enabled by a self-assembled CuO/Ti<sub>3</sub>C<sub>2</sub>TX MXene. **2023**, 13, 6264-6273 ○
- 198 Enhanced electromagnetic interference shielding performance of patterned AgNWs doped MXene films in X-band. **2023**, 98, 045001 ○
- 197 Magnetic enhanced high-efficiency electromagnetic wave absorbing MXene/Fe<sub>3</sub>O<sub>4</sub> composite absorbers at 240 GHz. **2023**, 11, 4171-4181 ○
- 196 Conductive Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> networks to optimize Na<sub>3</sub>V<sub>2</sub>O<sub>2</sub>(PO<sub>4</sub>)<sub>2</sub>F cathodes for improved rate capability and low-temperature operation. **2023**, 52, 4717-4727 ○
- 195 Effect of pH on the Electrochemical Behavior and Nitrogen Reduction Reaction Activity of Ti<sub>2</sub>N Nitride MXene. **2023**, 10, ○
- 194 Holey Ti<sub>3</sub>C<sub>2</sub> MXene-Derived Anode Enables Boosted Kinetics in Lithium-Ion Capacitors. **2023**, 15, 12161-12170 ○
- 193 Improved Mechanical Strength of Dicatechol Crosslinked MXene Films for Electromagnetic Interference Shielding Performance. **2023**, 13, 787 1
- 192 MXene Fiber-based Wearable Textiles in Sensing and Energy Storage Applications. **2023**, 24, 1167-1182 ○

- 191 V2CTX MXene-based hybrid sensor with high selectivity and ppb-level detection for acetone at room temperature. **2023**, 13, ○
- 190 Bis(2-hydroxyethyl) Terephthalate-Modified Ti3C2Tx/Graphene Nanohybrids as Three-Dimensional Functional Chain Extenders for Polyurethane Composite Films with Strain-Sensing and Conductive Properties. **2023**, 15, 12403-12413 ○
- 189 Ion Irradiation Effects on Two-Dimensional MXene Ti2C for Applications in Extreme Conditions: Combined Ab Initio and Monte Carlo Simulations. **2023**, 6, 3463-3471 ○
- 188 Covalently grafted amino acid-modified Ti3C2Tx to construct an interface for separation of oily wastewater and dye wastewater. **2023**, 49, 17437-17452 ○
- 187 State-of-the-art: MXene structures in nano-oncology. **2023**, 147, 213354 ○
- 186 Perfect absorption based on Ti3C2Tx surface plasmon resonance. **2023**, 137, 113604 ○
- 185 Robust Biocompatible Fibers from Silk Fibroin Coated MXene Sheets. **2023**, 10, 2201634 ○
- 184 Fabrication and properties of the 6-aminocaproic acid-modified MXene-based PA6 nanocomposites. **2023**, 30, 529-541 ○
- 183 NiO@MXene Nanocomposite as an Anode with Enhanced Energy Density for Asymmetric Supercapacitors. **2023**, 37, 4658-4670 ○
- 182 High Responsivity and EQE of Single ZnO:Sb Microwire/Ti3C2Tx Heterojunction UV Photodetector. **2023**, 1, 745-752 ○
- 181 Process Controlled Ruthenium on 2D Engineered V-MXene via Atomic Layer Deposition for Human Healthcare Monitoring. 2206355 ○
- 180 Thermal Characteristics and Tribological Performances of Solid Lubricants: A Mini Review. ○
- 179 Covalent Bonding of MXene/Reduced Graphene Oxide Composites for Efficient Electromagnetic Wave Absorption. **2023**, 6, 3367-3377 ○
- 178 Two-dimensional Ti3C2 MXene-derived Ti3C2-Ti2C-TiO2 materials for improved diclofenac sodium adsorption performance. **2023**, 30, 52157-52168 ○
- 177 Transition metal chalcogenides for next-generation energy storage. ○
- 176 One-Dimensional  $\pi$ -Conjugated Coordination Polymer Intercalated MXene Compound for High-Performance Supercapacitor Electrode. **2023**, 7, ○
- 175 Theoretical investigation of the MXene precursors  $\text{Mo}_x\text{V}_4\text{-xAlC}_3$  (0  $\leq$  x  $\leq$  4). **2023**, 13, ○
- 174 Ion Selective and Water Resistant Cellulose Nanofiber/MXene Membrane Enabled Cycling Zn Anode at High Currents. **2023**, 13, 1

- 173 Synthesis of  $Ti_3AlC_2$  max phase under vacuum, its structural characterization and using for  $Ti_3C_2Tx$  MXene preparation. **2023**, 771, 139759 ○
- 172 MXene-containing anisotropic hydrogels strain sensors with enhanced sensing performance for human motion monitoring and wireless transmission. **2023**, 461, 142099 ○
- 171 Machine learning assisted screening of MXenes pseudocapacitive materials. **2023**, 564, 232834 ○
- 170 One-step laser ablation of Fe clusters supported on  $Ti_3C_2Tx$  nanosheets for enhanced  $NH_3$  sensing at room temperature. **2023**, 49, 18353-18362 ○
- 169 Robust construction of CdSe nanorods@ $Ti_3C_2$  MXene nanosheet for superior photocatalytic  $H_2$  evolution. **2023**, 328, 122537 ○
- 168 Electrocapacitive Deionization: Mechanisms, Electrodes, and Cell Designs. 2213578 ○
- 167 Scalable, ultra-high stretchable and conductive fiber triboelectric nanogenerator for biomechanical sensing. **2023**, 109, 108291 1
- 166 Effect of terminations on the hydrogen evolution reaction mechanism on  $Ti_3C_2$  MXene. **2023**, 11, 6886-6900 ○
- 165 High-Capacity Ion Batteries Based on  $Ti_2C$  MXene and Borophene First Principles Calculations. **2023**, 11, 95 ○
- 164 Wearable Two-Dimensional Nanomaterial-Based Flexible Sensors for Blood Pressure Monitoring: A Review. **2023**, 13, 852 ○
- 163 High-speed InAs quantum dot photodetectors for data/telecom. **2023**, 199-231 ○
- 162 The recent advance of precisely designed membranes for sieving. **2023**, 34, 232003 ○
- 161 Application of Titanium Carbide MXenes in Chemiresistive Gas Sensors. **2023**, 13, 850 3
- 160 An infrared photothermoelectric detector enabled by MXene and PEDOT:PSS composite for noncontact fingertip tracking. **2023**, 9, ○
- 159 Improvement in alkali-resistance of basalt fiber-reinforced polymer by  $Ti_3C_2Tx$  (MXene) modified matrix. **2023**, 44, 2581-2591 ○
- 158 Progress in 3D-MXene Electrodes for Lithium/Sodium/Potassium/Magnesium/Zinc/Aluminum-Ion Batteries. **2023**, 6, ○
- 157 Important roles of surface functionalized groups of MXenes on adsorption capacities of Sr and Cs: A theoretical study. **2023**, 1283, 135261 ○
- 156 Molten-salt assisted synthesis of two-dimensional materials and energy storage application. **2023**, 29, 101419 ○

- 155 Effect of Substitutional Oxygen on Properties of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene Produced Using Recycled TiO<sub>2</sub> Source. 2201715 ○
- 154 Bottom-up synthesis of 2D heterostructures enables effective polysulfides inhibition and conversion. ○
- 153 MXene Ti<sub>3</sub>C<sub>2</sub> decorated g-C<sub>3</sub>N<sub>4</sub>/ZnO photocatalysts with improved photocatalytic performance for CO<sub>2</sub> reduction. **2023**, ○
- 152 Study on the electromagnetic wave absorption performance of Ti<sub>3</sub>C<sub>2</sub> MXene with different etching states. **2023**, 58, 4824-4839 ○
- 151 Recent Advances in Two-Dimensional MXene for Supercapacitor Applications: Progress, Challenges, and Perspectives. **2023**, 13, 919 ○
- 150 Roles of MXenes in biomedical applications: recent developments and prospects. **2023**, 21, ○
- 149 Vertically Aligned Bismuthene Nanosheets on MXene for High-Performance Capacitive Deionization. **2023**, 17, 4843-4853 ○
- 148 Retrospective insights into recent MXene-based catalysts for CO<sub>2</sub> electro/photoreduction: how far have we gone?. **2023**, 15, 6536-6562 ○
- 147 Research Progress of Electromagnetic Shielding Performance of MXene (Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub>) Composites. **2023**, 621-635 ○
- 146 Exploring the potential use of natural polymers to enhance the performance of MXene/MOF-5 nanocarrier in loading and co-loading of doxorubicin and curcumin. ○
- 145 Environmentally sustainable implementations of two-dimensional nanomaterials. 11, ○
- 144 Swelling-Induced Structural Transformation Strategy: Controllable Synthesis of 2D Porous Polypyrrole/MXene Heterostructures with Tunable Pore Structures. **2023**, 10, ○
- 143 Progress of high performance Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene nanocomposite films for electromagnetic interference shielding. **2023**, 15, 5579-5597 ○
- 142 Two-dimensional transition metal MXene-based gas sensors: A review. **2023**, 108286 ○
- 141 Preparation of two-dimensional sodium-boron phosphide nanosheets used for Na-ion hybrid supercapacitor devices. **2023**, 39, 100490 ○
- 140 Solvent-free covalent MXene nanofluid: A new lubricant combining the characteristics of solid and liquid lubricants. **2023**, 462, 142238 ○
- 139 Theoretical investigations of Ti<sub>4</sub>C<sub>3</sub> and Ti<sub>4</sub>C<sub>3</sub>T<sub>2</sub> (T = F, O and OH) monolayers as anode materials for Li-ion batteries. **2023**, 38, 100491 ○
- 138 2D material-based sensing devices: an update. **2023**, 11, 6016-6063 ○



- 137 The synthesis of MXenes. **2023**, 48, 245-252
- 136 Niche Applications of MXene Materials in Photothermal Catalysis. **2023**, 5, 492-510
- 135 Ambipolar Electrochemistry of Pre-Intercalated Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene in Ionic Liquid Electrolyte.
- 134 Effect of the surface termination on the adsorption of flue gas by the titanium carbide MXene. **2023**, 29, 101441
- 133 The enhanced photocatalytic and photothermal effects of Ti<sub>3</sub>C<sub>2</sub> MXene quantum dot/macroscale porous graphitic carbon nitride heterojunction for Hydrogen Production. **2023**, 641, 309-318
- 132 Photocatalytic Activity of the Oxidation Stabilized Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene in Decomposing Methylene Blue, Bromocresol Green and Commercial Textile Dye. 2201252
- 131 MXene-Based Aptameric Fluorosensor for Sensitive and Rapid Detection of COVID-19. 2301146
- 130 Enhanced Yield of Large-Sized Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene Polymers Nanosheets via Cyclic Ultrasonic-Centrifugal Separation. **2023**, 15, 1330
- 129 Sensing and Stimulation Applications of Carbon Nanomaterials in Implantable Brain-Computer Interface. **2023**, 24, 5182
- 128 High-performance warm white LED based on thermally stable all inorganic perovskite quantum dots. **2023**, 6, 230022-230022
- 127 Room-Temperature Self-Healing Conductive Elastomers for Modular Assembly as a Microfluidic Electrochemical Biosensing Platform for the Detection of Colorectal Cancer Exosomes. **2023**, 14, 617
- 126 Hierarchical V<sub>4</sub>C<sub>3</sub>T<sub>x</sub>@NiO-reduced graphene oxide heterostructure hydrogels and defective reduced graphene oxide hydrogels as free-standing anodes and cathodes for high-performance asymmetric supercapacitors. **2023**, 25, 9140-9151
- 125 Electrostatically Assisted Construction Modified MXene-IL-Based Nanofluids for Photothermal Conversion.
- 124 Photo-response of water intercalated Ti<sub>3</sub>C<sub>2</sub>O<sub>2</sub> MXene. **2023**, 25, 9522-9531
- 123 Computational studies on functionalized Janus MXenes MM<sub>2</sub>CT<sub>2</sub>, (M, M<sub>2</sub> = Zr, Ti, Hf, M<sub>1</sub>M<sub>2</sub>?; T = D, B, DH): photoelectronic properties and potential photocatalytic activities. **2023**, 13, 7972-7979
- 122 Retrospective on Exploring MXene-Based Nanomaterials: Photocatalytic Applications. **2023**, 28, 2495
- 121 Two-dimensional MXenes. **2023**, 48, 238-244
- 120 TiO<sub>2</sub>/Ni<sub>3</sub>C Hybrid Derived from Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub>/NiMOF for Highly Sensitive Electrochemical Sensing of Mercury Ions. **2023**, 170, 037519

- 119 Chemical Sensors Based on Graphene and 2D Graphene Analogs. 2200057 ○
- 118 Band Structure Engineering of MXenes for Low-Loss Visible Epsilon-Near-Zero Properties by First-Principles Calculation. 2201119 ○
- 117 Synthesis and optical properties of light-emitting V2N MXene quantum dots. **2023**, 138, 113660 ○
- 116 2D Layered Nanomaterials as Fillers in Polymer Composite Electrolytes for Lithium Batteries. **2023**, 13, ○
- 115 The Rise of MXene: A Wonder 2D Material, from Its Synthesis and Properties to Its Versatile Applications A Comprehensive Review. **2023**, 381, ○
- 114 In Situ Confined Growth of Co3O4@TiO2/C S-Scheme Nanoparticle Heterojunction for Boosted Photocatalytic CO2 Reduction. **2023**, 127, 5289-5298 ○
- 113 Computational studies of MXenes. **2023**, 48, 253-260 ○
- 112 MXene-cellulose nanofiber composites: toward green, multi-functional, flexible, and highly efficient electromagnetic interference shielding materials. ○
- 111 Understanding and Controlling Photothermal Responses in MXenes. **2023**, 23, 2677-2686 ○
- 110 Rationally Integrating 2D Confinement and High Sodiophilicity toward SnO 2 /Ti 3 C 2 T x Composites for High-Performance Sodium-Metal Anodes. 2208277 ○
- 109 Enhancing the electrochemical performance of d-Mo2CTx MXene in lithium-ion batteries and supercapacitors by sulfur decoration. **2023**, ○
- 108 Ultrafast dynamics of photoexcitations in 2D Ti3C2Tz, Mo2Ti2C3Tz, and Nb2CTz MXenes. **2023**, ○
- 107 Recent Advances and Perspectives of Lewis Acidic Etching Route: An Emerging Preparation Strategy for MXenes. **2023**, 15, ○
- 106 Scalable synthesis of 2D Ti2CTx MXene and molybdenum disulfide composites with excellent microwave absorbing performance. **2023**, 6, ○
- 105 Facile Tailoring of Surface Terminations of MXenes by Doping Nb Element: Toward Extraordinary Pseudocapacitance Performance. **2023**, 15, 15367-15376 ○
- 104 Exploring the sensitivity of Hf2CO2 towards H2S: a DFT study. **2023**, 121, ○
- 103 Chemical scissor-mediated structural editing of layered transition metal carbides. **2023**, 379, 1130-1135 ○
- 102 Review: materials for biocompatible tribo-piezo nanogenerators. ○

- 101 Biocompatible and Oxidation-Resistant Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene with Halogen-Free Surface Terminations. 2201579 ○
- 100 Nitrogen and sulfur co-doped Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXenes for high-rate lithium-ion batteries. **2023**, 25, 10635-10646 ○
- 99 Enhancement of the photocatalytic hydrogen production with the exfoliation degree of Nb<sub>2</sub>C cocatalyst. **2023**, ○
- 98 Vanadium MXenes materials for next-generation energy storage devices. **2023**, 34, 252001 ○
- 97 First-Principles Density Functional Theory Calculations on the Potential of Sc<sub>2</sub>CO<sub>2</sub> MXene Nanosheets as a Dual-Mode Sensor for Detection of Volatile Organic Compounds in Exhaled Human Breath. **2023**, 6, 5345-5356 ○
- 96 Non-van der Waals 2D Materials for Electrochemical Energy Storage. 2209360 ○
- 95 A systematic computational investigation of lithiation-induced structural phase transitions of O-functionalized MXenes. **2023**, 25, 9428-9436 ○
- 94 Interfacial Designs of MXenes for Mild Aqueous Zinc-Ion Storage. 2201683 ○
- 93 Biomimetic Flexible Electronic Materials from Silk Fibroin-MXene Composites Developed via Mussel-Inspired Chemistry as Wearable Pressure Sensors. **2023**, 6, 5211-5223 ○
- 92 Synthesis of Multicomponent Coatings by Electrospark Alloying with Powder Materials. **2023**, 13, 651 ○
- 91 MXene-Based Materials for Multivalent Metal-Ion Batteries. **2023**, 9, 174 ○
- 90 Recent advances in two-dimensional MXenes for zinc-ion batteries. ○
- 89 Synthesis of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub>/ZnO composites decorated with PEDOT:PSS for NO<sub>2</sub> gas sensors. ○
- 88 Novel MXene-Modified Polyphenyl Sulfone Membranes for Functional Nanofiltration of Heavy Metals-Containing Wastewater. **2023**, 13, 357 ○
- 87 MXene-based nanocomposite for the photocatalytic CO<sub>2</sub> reduction: Comprehensive review. **2023**, 541, 113085 ○
- 86 Phase Change Thermal Storage Materials for Interdisciplinary Applications. ○
- 85 Magnetic Ti<sub>3</sub>C<sub>2</sub> MXene Nanosheets Prepared for Enrichment of Phosphopeptides. **2023**, 15, 16505-16514 ○
- 84 Enhanced electromagnetic wave absorption based on Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> loaded nickel nanoparticles via polydopamine connection. **2023**, ○

- 83 Direct synthesis and chemical vapor deposition of 2D carbide and nitride MXenes. **2023**, 379, 1242-1247 ○
- 82 MXene-Based Sc<sub>2</sub>CHO/Sc<sub>2</sub>NHO/Sc<sub>2</sub>CHO Magnetic Tunnel Junctions for Multi-Value Logic Computing Devices: A First Principles Study. **2023**, 6, 5853-5859 ○
- 81 Two-dimensional Nb<sub>2</sub>CTx nanosheets decorated LiFePO<sub>4</sub>/C as cathode material for lithium-ion batteries. **2023**, 58, 5413-5426 ○
- 80 Emerging 2D Materials for Supercapacitors: MXenes. **2023**, 65-88 ○
- 79 Fewer Dimensions for Higher Thermal Performance: A Review on 2D Nanofluids. **2023**, 13, 4070 ○
- 78 A direct and clean route to MXenes. **2023**, 379, 1189-1190 ○
- 77 Advances in flexible sensors for intelligent perception system enhanced by artificial intelligence. ○
- 76 Surface Modification of a Titanium Carbide MXene Memristor to Enhance Memory Window and Low-Power Operation. 2300343 ○
- 75 Twin suppression effect of dihydroxy-benzene isomers during the secondary growth of b-oriented zeolite MFI nanosheet films. ○
- 74 Recent Advances in MXene-Based Nanocomposites for Wastewater Purification and Water Treatment: A Review. **2023**, 15, 1267 ○
- 73 MXene-MoS<sub>2</sub> nanocomposites via chemical vapor deposition with enhanced electrocatalytic activity for hydrogen evolution. ○
- 72 MXene Aerogel Derived Ultra-Active Vanadia Catalyst for Selective Conversion of Sustainable Alcohols to Base Chemicals. **2023**, 15, 16714-16722 ○
- 71 Gas-Sensitive Properties of ZnO/Ti<sub>2</sub>CTx Nanocomposites. **2023**, 14, 725 ○
- 70 Emerging MXene-Based Flexible Tactile Sensors for Health Monitoring and Haptic Perception. ○
- 69 Engineering chemical-bonded Ti<sub>3</sub>C<sub>2</sub> MXene@carbon composite films with 3D transportation channels for promoting lithium-ion storage in hybrid capacitors. **2023**, 66, 944-954 ○
- 68 Gas-sensing properties and applications of MXenes. **2023**, 48, 261-270 ○
- 67 Directly Using Ti<sub>3</sub>C<sub>2</sub>Tx MXene for a Solid-Contact Potentiometric pH Sensor toward Wearable Sweat pH Monitoring. **2023**, 13, 376 ○
- 66 Smart Nanomaterials for Photo-Catalytic Applications. **2023**, 112-154 ○

- 65 Shearing-force-driven delamination of waste residue into oxidatively stable MXene composites for high-performance Si anode. ○
- 64 Zr<sub>3</sub>C<sub>2</sub>O<sub>2</sub> MXene as promising candidate for NH<sub>3</sub> sensor with high sensitivity and selectivity at room temperature. **2023**, 624, 157125 ○
- 63 Super-Stretchable, Self-Healing 2D MXene-Based Composites for Thermal Management and Electromagnetic Shielding Applications. ○
- 62 Exploration of Photocatalytic Overall Water Splitting Mechanisms in the Z-Scheme SnS<sub>2</sub>/g-C<sub>3</sub>N<sub>4</sub> Heterostructure. **2023**, 127, 6347-6355 ○
- 61 Three-dimensional N-doped mesoporous carbon/MXene hybrid architecture for supercapacitor applications. **2023**, 13, 9983-9997 ○
- 60 Role of Chemical Etching in the Nucleation of Nanopores in 2D MoS<sub>2</sub>: Insights from First-Principles Calculations. **2023**, 127, 6873-6883 ○
- 59 Crystalline monolayer graphdiyne synthesized in the MXene interlayer space. ○
- 58 Effect of vacancies and edges in promoting water chemisorption on titanium-based MXenes. **2023**, 10, ○
- 57 Efficient activation of persulfate by Ti<sub>3</sub>C<sub>2</sub> MXene QDs modified ZnFe<sub>2</sub>O<sub>4</sub> for the rapid degradation of tetracycline. **2023**, 328, 138546 ○
- 56 Covalent Organic Frameworks (COFs)/MXenes Heterostructures for Electrochemical Energy Storage. ○
- 55 Antibacterial effect and photothermal sterilization of low dose two-dimensional vanadium carbide. **2023**, 129, ○
- 54 Improving the Photocatalytic Activity of Ti<sub>3</sub>C<sub>2</sub> MXene by Surface Modification of N Doped. **2023**, 16, 2836 ○
- 53 An All-MXene-Based Flexible, Seamless System with Integrated Wireless Charging Coil, Micro-Supercapacitor, and Photodetector. ○
- 52 A comprehensive overview of MXene-based anode materials for univalent metal ions (Li<sup>+</sup>, Na<sup>+</sup>, and K<sup>+</sup>) and bivalent zinc ion capacitor application. **2023**, 8, ○
- 51 Pt nanoparticles anchored on Ti<sub>3</sub>C<sub>2</sub> MXene-derived TiO<sub>2</sub> nanosheets for enhanced hydrogen evolution reaction. **2023**, 8, ○
- 50 In situ generation of a Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> (T<sub>x</sub> = F, O and OH) MXene decorated CuO nanocomposite with extraordinary catalytic activity for TKX-50 thermal decomposition. ○
- 49 Fully Transparent Ultraviolet Photodetector with Ultrahigh Responsivity Enhanced by MXene-Induced Photogating Effect. ○
- 48 Status and Prospects of MXene-Based Lithium/Oxygen Batteries: Theoretical Prediction and Experimental Modulation. ○

- 47 Nonlinear Absorption and Refraction Properties of V<sub>4</sub>C<sub>3</sub> MXene and its Use for an Ultra-Broadband Saturable Absorber. ○
- 46 MXene-Based Flexible Sensors: Materials, Preparation, and Applications. ○
- 45 Insertion of MXene-Based Materials into CuPd 3D Aerogels for Electroreduction of CO<sub>2</sub> to Formate. ○
- 44 Strain effects on the electronic and magnetic properties of Cr<sub>2</sub>TaC<sub>2</sub> and Cr<sub>2</sub>TaC<sub>2</sub>O<sub>2</sub> monolayers. **2023**, 122, 151901 ○
- 43 Uncovering the Binder Interactions with S-PAN and MXene for Room Temperature Na<sup>+</sup> Batteries. ○
- 42 Advances in Strategic Inhibition of Polysulfide Shuttle in Room-Temperature Sodium-Sulfur Batteries via Electrode and Interface Engineering. **2023**, 9, 223 ○
- 41 Nanostructuring of Mg-Based Hydrogen Storage Materials: Recent Advances for Promoting Key Applications. **2023**, 15, ○
- 40 Asymmetrically Coordinated Cu<sup>I</sup> 1 C 2 Single-Atom Catalyst Immobilized on Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene as Separator Coating for Lithium-Sulfur Batteries. ○
- 39 Thin-film MXene-based metamaterial absorber design for solar cell applications. **2023**, 55, ○
- 38 Metal sulfide-based nanomaterials for electrochemical CO<sub>2</sub> reduction. ○
- 37 Work function and energy level alignment tuning at Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene surfaces and interfaces using (metal-)organic donor/acceptor molecules. **2023**, 7, ○
- 36 The performances and mechanisms for Cr(VI) and Cr(III) removal using TMAOH delaminated Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> suspension. **2023**, 11, 109878 ○
- 35 MXene Nanosheets Decorated with Pt Nanostructures for the Selective Electrochemical Detection of Quercetin. ○
- 34 Comparative study on boundary lubrication of Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene and graphene oxide in water. ○
- 33 Surface modification of CuSe: a first-principles study. **2023**, 0 ○
- 32 MXenes and MXene-based materials for removal of pharmaceutical compounds from wastewater: Critical review. **2023**, 228, 115919 ○
- 31 Systematic Investigation on Supported Gold Catalysts Prepared by Fluorine-Free Basic Etching Ti<sub>3</sub>AlC<sub>2</sub> in Selective Oxidation of Aromatic Alcohols to Aldehydes. **2023**, 16, 3139 ○
- 30 Promising M<sub>2</sub>CO<sub>2</sub>/MoX<sub>2</sub> (M = Hf, Zr; X = S, Se, Te) Heterostructures for Multifunctional Solar Energy Applications. **2023**, 28, 3525 ○

- 29 Cost analysis of MXene for low-cost production, and pinpointing of its economic footprint. ○
- 28 Electrical tuning of robust layered antiferromagnetism in MXene monolayer. **2023**, 122, 162403 ○
- 27 Engineering A New Member of MXenes M5C4 Phases Nanoplatfoms as Synergistically Photothermal and Chemodynamic Therapeutics for Methicillin-Resistant Staphylococcus Aureus. **2023**, 143004 ○
- 26 Recent advances in the development of MXenes/cellulose based composites: A review. **2023**, 240, 124477 ○
- 25 Elucidating the electronic metal-support interaction enhanced hydrogen evolution activity on Ti3C2Tx MXene basal plane by scanning electrochemical microscopy. ○
- 24 Recent progress in MXenes incorporated into electrospun nanofibers for biomedical application: Study focusing from 2017 to 2022. **2023**, 108463 ○
- 23 Effective Surface Modification of 2D MXene toward Thermal Energy Conversion and Management. ○
- 22 Bubble Printing of Ti3C2Tx MXene for Patterning Conductive and Plasmonic Nanostructures. ○
- 21 Engineering strategies and active site identification of MXene-based catalysts for electrochemical conversion reactions. ○
- 20 Large-Area Metal-Semiconductor Heterojunctions Realized via MXene-Induced Two-Dimensional Surface Polarization. ○
- 19 A Wearable Healthcare Platform Integrated with Biomimetic Ions Conducted Metal-Organic Framework Composites for Gas and Strain Sensing in Non-Overlapping Mode. ○
- 18 Process optimization and kinetic study for solar-driven photocatalytic methane bi-reforming over TiO2/Ti3C2 supported CoAl-LDH-g-C3N4 dual S-scheme nanocomposite. **2023**, 286, 117021 ○
- 17 Ultrasonic exfoliated few-layer Ti2CTx nanosheets for high specific capacitive electrode. **2023**, 34, ○
- 16 Facile and universal fabrication of cellulose nanofibers from bulk lignocellulose materials and their applications in multifunctional epidermal electrophysiological signals monitoring. **2023**, 199, 116762 ○
- 15 Effect of organic solvents on in-situ growth of defective TiO2 from Ti3C2T MXene nanosheets for photocatalytic NO abatement. **2023**, 157324 ○
- 14 Two-Dimensional MXenes Derived from Medium/High-Entropy MAX Phases M2GaC (M = Ti/V/Nb/Ta/Mo) and their Electrochemical Performance. ○
- 13 Regulating d-Band Center of Ti2C MXene Via Nb Alloying for Stable and High-Efficient Supercapacitive Performances. ○
- 12 Progress and challenges of emerging MXene based materials for thermoelectric applications. **2023**, 26, 106718 ○

- 11 The review of MXenes for osmotic energy harvesting: Synthesis and properties. **2023**, 136, 109971 ○
- 10 Theoretical study on the electronic properties and quantum capacitance of Zr<sub>2</sub>CO<sub>2</sub> MXene with atomic swap. ○
- 9 Tracking the Explosive Boiling Dynamics at the Alcohol/MXene Interface. **2023**, 14, 4142-4149 ○
- 8 Preparation of Fluorine-free MXene Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> and Its Electrical Properties. **2023**, 38, 304-307 ○
- 7 Recent advances in 2D semiconductor nanomaterials for photocatalytic CO<sub>2</sub> reduction. ○
- 6 Quantitative monitoring of impact damage to composite structures using blade coated MXene sensors. **2023**, 40, 101609 ○
- 5 Amorphous MXene Opens New Perspectives. ○
- 4 Optical properties of in-plane chemically ordered i-MAX structures. **2023**, 25, 13665-13672 ○
- 3 Investigation of the optical and electronic properties of functionalized Ti<sub>3</sub>C<sub>2</sub> Mxene with halid atoms using DFT calculation. **2023**, 35, 106136 ○
- 2 Active site rich MXene as a sensing interface for brain neurotransmitter's and pharmaceuticals: One decade, many sensors. **2023**, 117096 ○
- 1 Two-dimensional material integrated micro-nano fiber, the new opportunity in all-optical signal processing. **2023**, ○