Joseph Halim

List of Publications by Year
in descending order

73 papers	14,482 citations	66250 44 h-index	78623 77 g-index
80 all docs	80 docs citations	80 times ranked	10972 citing authors

#	Article	IF	Citations
1	Aqueous Electrolytes, MXeneâ€Based Supercapacitors and Their Selfâ€Discharge. Advanced Energy and Sustainability Research, 2022, 3, 2100147.	2.8	11
2	MXene-based symmetric supercapacitors with high voltage and high energy density. Materials Reports Energy, 2022, 2, 100078.	1.7	10
3	Investigation of 2D Boridene from First Principles and Experiments. Advanced Functional Materials, 2022, 32, .	7.8	31
4	Effect of vacancies on the electrochemical behavior of Mo-based MXenes in aqueous supercapacitors. Journal of Power Sources, 2022, 525, 231064.	4.0	13
5	High-Entropy Laminate Metal Carbide (MAX Phase) and Its Two-Dimensional Derivative MXene. Chemistry of Materials, 2022, 34, 2098-2106.	3.2	60
6	Exploring the electrochemical behavior of Mo1.33CTz MXene in aqueous sulfates electrolytes: Effect of intercalating cations on the stored charge. Journal of Power Sources, 2022, 531, 231302.	4.0	6
7	Colorless-to-colorful switching of electrochromic MXene by reversible ion insertion. Nano Research, 2022, 15, 3587-3593.	5.8	16
8	MXene//MnO₂ Asymmetric Supercapacitors with High Voltages and High Energy Densities. Batteries and Supercaps, 2022, 5, .	2.4	4
9	MXene-based Zn-ion hybrid supercapacitors: Effects of anion carriers and MXene surface coatings on the capacities and life span. Journal of Energy Storage, 2022, 52, 104823.	3.9	12
10	Hydrogen Evolution Reaction for Vacancyâ€Ordered iâ€MXenes and the Impact of Proton Absorption into the Vacancies. Advanced Sustainable Systems, 2021, 5, 2000158.	2.7	27
11	Tailored synthesis approach of (Mo_{2/3}Y_{1/3})₂AlC i-MAX and its two-dimensional derivative Mo_{1.33}CT_z MXene: enhancing the yield, quality, and performance in supercapacitor applications. Nanoscale, 2021, 13, 311-319.	2.8	22
12	Fabrication of Mo_{1.33}CT_z(MXene)â€“cellulose freestanding electrodes for supercapacitor applications. Materials Advances, 2021, 2, 743-753.	2.6	15
13	Boosting the volumetric capacitance of MoO3-x free-standing films with Ti3C2 MXene. Electrochimica Acta, 2021, 370, 137665.	2.6	34
14	Ultrafast, One-Step, Salt-Solution-Based Acoustic Synthesis of Ti₃C₂ MXene. ACS Nano, 2021, 15, 4287-4293.	7.3	103
15	MXeneâ€"manganese oxides aqueous asymmetric supercapacitors with high mass loadings, high cell voltages and slow self-discharge. Energy Storage Materials, 2021, 38, 438-446.	9.5	40
16	Acoustomicrofluidic Synthesis of Pristine Ultrathin Ti₃C₂T_z MXene Nanosheets and Quantum Dots. ACS Nano, 2021, 15, 12099-12108.	7.3	46
17	Boridene: Two-dimensional Mo _{4/3} B _{2-x} with ordered metal vacancies obtained by chemical exfoliation. Science, 2021, 373, 801-805.	6.0	126
18	Outâ€Ofâ€Plane Ordered Laminate Borides and Their 2D Tiâ€Based Derivative from Chemical Exfoliation. Advanced Materials, 2021, 33, e2008361.	11.1	14

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19	Enhanced supercapacitive performance of Mo1.33C MXene based asymmetric supercapacitors in lithium chloride electrolyte. Energy Storage Materials, 2021, 41, 203-208.	9.5	30
20	Mixed MXenes: Mo1.33CTz and Ti3C2Tz freestanding composite films for energy storage. Nano Energy, 2021, 88, 106271.	8.2	21
21	Improved charge storage performance of a layered Mo_{1.33}C MXene/MoS₂/graphene nanocomposite. Nanoscale Advances, 2021, 3, 6689-6695.	2.2	2
22	Flexible Freeâ€Standing MoO₃/Ti₃C₂T_z MXene Composite Films with High Gravimetric and Volumetric Capacities. Advanced Science, 2021, 8, 2003656.	5.6	59
23	Mo1.33CTzâ€“Ti3C2Tz mixed MXene freestanding films for zinc-ion hybrid supercapacitors. Materials Today Energy, 2021, 22, 100878.	2.5	17
24	Composition Tuning of Nanostructured Binary Copper Selenides through Rapid Chemical Synthesis and Their Thermoelectric Property Evaluation. Nanomaterials, 2020, 10, 854.	1.9	17
25	How Much Oxygen Can a MXene Surface Take Before It Breaks?. Advanced Functional Materials, 2020, 30, 1909005.	7.8	111
26	XPS of cold pressed multilayered and freestanding delaminated 2D thin films of Mo2TiC2Tz and Mo2Ti2C3Tz (MXenes). Applied Surface Science, 2019, 494, 1138-1147.	3.1	58
27	Synthesis of (V_{2/3}Sc_{1/3})₂AlC i-MAX phase and V_{2â^'x}C MXene scrolls. Nanoscale, 2019, 11, 14720-14726.	2.8	52
28	Theoretical Analysis, Synthesis, and Characterization of 2D W_{1.33}C (MXene) with Ordered Vacancies. ACS Applied Nano Materials, 2019, 2, 6209-6219.	2.4	37
29	Electronic and optical characterization of 2D Ti₂C and Nb₂C (MXene) thin films. Journal of Physics Condensed Matter, 2019, 31, 165301.	0.7	74
30	Polymer-MXene composite films formed by MXene-facilitated electrochemical polymerization for flexible solid-state microsupercapacitors. Nano Energy, 2019, 60, 734-742.	8.2	124
31	A Tungsten-Based Nanolaminated Ternary Carbide: (W,Ti)₄C_{4â€“x}. Inorganic Chemistry, 2019, 58, 1100-1106.	1.9	9
32	2D Transition Metal Carbides (MXenes) for Carbon Capture. Advanced Materials, 2019, 31, e1805472.	11.1	184
33	Tailoring Structure, Composition, and Energy Storage Properties of MXenes from Selective Etching of Inâ€Plane, Chemically Ordered MAX Phases. Small, 2018, 14, e1703676.	5.2	174
34	Wâ€Based Atomic Laminates and Their 2D Derivative W_{1.33}C MXene with Vacancy Ordering. Advanced Materials, 2018, 30, e1706409.	11.1	240
35	Two-Dimensional Molybdenum Carbide (MXene) with Divacancy Ordering for Brackish and Seawater Desalination via Cation and Anion Intercalation. ACS Sustainable Chemistry and Engineering, 2018, 6, 3739-3747.	3.2	183
36	Chemical bonding in carbide MXene nanosheets. Journal of Electron Spectroscopy and Related Phenomena, 2018, 224, 27-32.	0.8	64

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37	On the organization and thermal behavior of functional groups on Ti ₃ C ₂ MXene surfaces in vacuum. 2D Materials, 2018, 5, 015002.	2.0	219
38	Sodium hydroxide and vacuum annealing modifications of the surface terminations of a Ti₃C₂(MXene) epitaxial thin film. RSC Advances, 2018, 8, 36785-36790.	1.7	49
39	Variable range hopping and thermally activated transport in molybdenum-based MXenes. Physical Review B, 2018, 98, .	1.1	66
40	On the Structural Stability of MXene and the Role of Transition Metal Adatoms. Nanoscale, 2018, 10, 10850-10855.	2.8	71
41	Synthesis of Two-Dimensional Nb_{1.33}C (MXene) with Randomly Distributed Vacancies by Etching of the Quaternary Solid Solution (Nb_{2/3}Sc_{1/3})₂AlC MAX Phase. ACS Applied Nano Materials, 2018, 1, 2455-2460.	2.4	154
42	Two-Dimensional Titanium Carbide MXene As a Cathode Material for Hybrid Magnesium/Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 4296-4300.	4.0	188
43	Alkylammonium Cation Intercalation into Ti₃C₂ (MXene): Effects on Properties and Ion-Exchange Capacity Estimation. Chemistry of Materials, 2017, 29, 1099-1106.	3.2	188
44	Controlling the conductivity of Ti₃C₂MXenes by inductively coupled oxygen and hydrogen plasma treatment and humidity. RSC Advances, 2017, 7, 13097-13103.	1.7	79
45	Interaction of Polar and Nonpolar Polyfluorenes with Layers of Two-Dimensional Titanium Carbide (MXene): Intercalation and Pseudocapacitance. Chemistry of Materials, 2017, 29, 2731-2738.	3.2	170
46	Rendering Ti₃C₂T_x (MXene) monolayers visible. Materials Research Letters, 2017, 5, 322-328.	4.1	41
47	Firstâ€order Raman scattering in threeâ€layered Moâ€based ternaries: MoAlB, Mo₂Ga₂C and Mo₂GaC. Journal of Raman Spectroscopy, 2017, 48, 631-638.	1.2	37
48	Two-dimensional Mo1.33C MXene with divacancy ordering prepared from parent 3D laminate with in-plane chemical ordering. Nature Communications, 2017, 8, 14949.	5.8	525
49	Ultra-high-rate pseudocapacitive energy storage in two-dimensional transition metal carbides. Nature Energy, 2017, 2, .	19.8	1,626
50	Structure and thermal expansion of (Crx,V1â^'x)n+1AlCn phases measured by X-ray diffraction. Journal of the European Ceramic Society, 2017, 37, 15-21.	2.8	22
51	Electrode Surface Composition of Dual-Intercalation, All-Graphite Batteries. Journal of Carbon Research, 2017, 3, 5.	1.4	9
52	Investigation of vacancy-ordered <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">M</mml:mi><mml:msub><mml:mi mathvariant="normal">o</mml:mi><mml:mrow><mml:mn>1.33</mml:mn></mml:mrow></mml:msub><mml:mi mathvariant="normal">C</mml:mi></mml:mrow></mml:math> MXene from first principles and x-ray photoelectron spectroscopy. Physical Review Materials, 2017, 1, .	0.9	36
53	Synthesis and Characterization of 2D Molybdenum Carbide (MXene). Advanced Functional Materials, 2016, 26, 3118-3127.	7.8	945
54	Fabrication of Ti₃C₂T_x MXene Transparent Thin Films with Tunable Optoelectronic Properties. Advanced Electronic Materials, 2016, 2, 1600050.	2.6	587

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55	Porous Twoâ€Dimensional Transition Metal Carbide (MXene) Flakes for Highâ€Performance Liâ€Ion Storage. ChemElectroChem, 2016, 3, 689-693.	1.7	452
56	Electronic properties of freestanding Ti3C2Tx MXene monolayers. Applied Physics Letters, 2016, 108, .	1.5	171
57	Ion-Exchange and Cation Solvation Reactions in Ti₃C₂ MXene. Chemistry of Materials, 2016, 28, 3507-3514.	3.2	499
58	Twoâ€Dimensional Nbâ€Based M₄C₃ Solid Solutions (MXenes). Journal of the American Ceramic Society, 2016, 99, 660-666.	1.9	234
59	X-ray photoelectron spectroscopy of select multi-layered transition metal carbides (MXenes). Applied Surface Science, 2016, 362, 406-417.	3.1	1,369
60	Synthesis of the new MAX phase Zr 2 AlC. Journal of the European Ceramic Society, 2016, 36, 1847-1853.	2.8	116
61	Synthesis of the novel Zr 3 AlC 2 MAX phase. Journal of the European Ceramic Society, 2016, 36, 943-947.	2.8	98
62	Experimental and theoretical characterization of ordered MAX phases Mo2TiAlC2 and Mo2Ti2AlC3. Journal of Applied Physics, 2015, 118, .	1.1	217
63	On the Rapid Synthesis of the Ternary Mo₂GaC. Journal of the American Ceramic Society, 2015, 98, 2713-2715.	1.9	23
64	Mo₂Ga₂C: a new ternary nanolaminated carbide. Chemical Communications, 2015, 51, 6560-6563.	2.2	141
65	Synthesis of two-dimensional molybdenum carbide, Mo 2 C, from the gallium based atomic laminate Mo 2 Ga 2 C. Scripta Materialia, 2015, 108, 147-150.	2.6	329
66	Atomically Resolved Structural and Chemical Investigation of Single MXene Sheets. Nano Letters, 2015, 15, 4955-4960.	4.5	415
67	Mo2TiAlC2: A new ordered layered ternary carbide. Scripta Materialia, 2015, 101, 5-7.	2.6	153
68	New Solid Solution MAX Phases: (Ti_{0.5}, V_{0.5})₃AlC₂, (Nb_{0.5}, V_{0.5})₂AlC, (Nb_{0.5},) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222 Td (V<sub>0	4.1	111
69	Roomâ€Temperature Carbideâ€Derived Carbon Synthesis by Electrochemical Etching of MAX Phases. Angewandte Chemie - International Edition, 2014, 53, 4877-4880.	7.2	133
70	Transparent Conductive Two-Dimensional Titanium Carbide Epitaxial Thin Films. Chemistry of Materials, 2014, 26, 2374-2381.	3.2	1,173
71	New Two-Dimensional Niobium and Vanadium Carbides as Promising Materials for Li-Ion Batteries. Journal of the American Chemical Society, 2013, 135, 15966-15969.	6.6	1,609
72	Electrodeposition and Characterization of Nanocrystalline Ni-Mo Catalysts for Hydrogen Production. Journal of Nanomaterials, 2012, 2012, 1-9.	1.5	49

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73	Surface morphology and electrochemical characterization of electrodeposited Niâ€“Mo nanocomposites as cathodes for hydrogen evolution. Journal of Alloys and Compounds, 2012, 530, 85-90.	2.8	49