Tao Hu

List of Publications by Year
in descending order

37 papers	3,962 citations	201385 27 h-index	329751 37 g-index
38 all docs	38 docs citations	38 times ranked	4237 citing authors

#	Article	IF	Citations
1	Emerging 2D MXenes for supercapacitors: status, challenges and prospects. Chemical Society Reviews, 2020, 49, 6666-6693.	18.7	466
2	Vibrational properties of Ti₃C₂and Ti₃C₂T₂(T = O, F, OH) monosheets by first-principles calculations: a comparative study. Physical Chemistry Chemical Physics, 2015, 17, 9997-10003.	1.3	455
3	High-Capacitance Mechanism for Ti₃C₂T_x MXene by in Situ Electrochemical Raman Spectroscopy Investigation. ACS Nano, 2016, 10, 11344-11350.	7.3	455
4	Surface Functional Groups and Interlayer Water Determine the Electrochemical Capacitance of Ti₃C₂T_x MXene. ACS Nano, 2018, 12, 3578-3586.	7.3	353
5	Chemical Origin of Termination-Functionalized MXenes: Ti₃C₂T₂ as a Case Study. Journal of Physical Chemistry C, 2017, 121, 19254-19261.	1.5	194
6	Allâ€Solidâ€State Flexible Fiberâ€Based MXene Supercapacitors. Advanced Materials Technologies, 2017, 2, 1700143.	3.0	156
7	Theoretical Insights into Superior Nitrate Reduction to Ammonia Performance of Copper Catalysts. ACS Catalysis, 2021, 11, 14417-14427.	5.5	150
8	Self-assembled Ti₃C₂T_xMXene film with high gravimetric capacitance. Chemical Communications, 2015, 51, 13531-13533.	2.2	148
9	Screening Surface Structure of MXenes by High-Throughput Computation and Vibrational Spectroscopic Confirmation. Journal of Physical Chemistry C, 2018, 122, 18501-18509.	1.5	130
10	MXene-coated silk-derived carbon cloth toward flexible electrode for supercapacitor application. Journal of Energy Chemistry, 2018, 27, 161-166.	7.1	122
11	Interlayer coupling in two-dimensional titanium carbide MXenes. Physical Chemistry Chemical Physics, 2016, 18, 20256-20260.	1.3	120
12	Understanding the Lithium Storage Mechanism of Ti₃C₂T_x MXene. Journal of Physical Chemistry C, 2019, 123, 1099-1109.	1.5	115
13	Anisotropic electronic conduction in stacked two-dimensional titanium carbide. Scientific Reports, 2015, 5, 16329.	1.6	107
14	[100]-Oriented LiFePO₄ Nanoflakes toward High Rate Li-Ion Battery Cathode. Nano Letters, 2016, 16, 795-799.	4.5	81
15	Carbon vacancies in Ti₂CT₂MXenes: defects or a new opportunity?. Physical Chemistry Chemical Physics, 2017, 19, 31773-31780.	1.3	81
16	Single-Atom Cobalt-Based Electrochemical Biomimetic Uric Acid Sensor with Wide Linear Range and Ultralow Detection Limit. Nano-Micro Letters, 2021, 13, 7.	14.4	76
17	Metasequoiaâ€like Nanocrystal of Ironâ€Doped Copper for Efficient Electrocatalytic Nitrate Reduction into Ammonia in Neutral Media. ChemSusChem, 2021, 14, 1825-1829.	3.6	75
18	MXenes induce epitaxial growth of size-controlled noble nanometals: A case study for surface enhanced Raman scattering (SERS). Journal of Materials Science and Technology, 2020, 40, 119-127.	5.6	73

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19	Interlayer engineering of Ti₃C₂T_x MXenes towards high capacitance supercapacitors. Nanoscale, 2020, 12, 763-771.	2.8	73
20	Totally Waterborne and Highly Durable Superamphiphobic Coatings for Antiâ€icing and Anticorrosion. Advanced Materials Interfaces, 2019, 6, 1901255.	1.9	71
21	Metal-free photo- and electro-catalysts for hydrogen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 23674-23698.	5.2	59
22	Structural defects in MAX phases and their derivative MXenes: A look forward. Journal of Materials Science and Technology, 2020, 38, 205-220.	5.6	55
23	Quantifying the rigidity of 2D carbides (MXenes). Physical Chemistry Chemical Physics, 2020, 22, 2115-2121.	1.3	52
24	Metal-free heterojunction of black phosphorus/oxygen-enriched porous g-C₃N₄ as an efficient photocatalyst for Fenton-like cascade water purification. Journal of Materials Chemistry A, 2020, 8, 19484-19492.	5.2	51
25	Functionalized MXenes for efficient electrocatalytic nitrate reduction to ammonia. Journal of Materials Chemistry A, 2022, 10, 8923-8931.	5.2	41
26	Discovery of carbon-vacancy ordering in Nb4AlC3â€“x under the guidance of first-principles calculations. Scientific Reports, 2015, 5, 14192.	1.6	37
27	Covalency-Dependent Vibrational Dynamics in Two-Dimensional Titanium Carbides. Journal of Physical Chemistry A, 2015, 119, 12977-12984.	1.1	34
28	One-Step Incorporation of Nitrogen and Vanadium between Ti₃C₂T_x MXene Interlayers Enhances Lithium Ion Storage Capability. Journal of Physical Chemistry C, 2020, 124, 6012-6021.	1.5	24
29	Host sensitization of Mn⁴⁺ in selfâ€activated Na₂WO₂F₄:Mn⁴⁺. Journal of the American Ceramic Society, 2018, 101, 3437-3442.	1.9	23
30	Atomic Repartition in MXenes by Electron Probes. Chemistry of Materials, 2019, 31, 4385-4391.	3.2	17
31	Influence of ordered carbonâ€vacancy networks on the electronic structures and elastic properties of Nb₄AlC_{3â^’x}. Journal of the American Ceramic Society, 2017, 100, 724-731.	1.9	14
32	Unraveling surface functionalization of Cr2B2T2 (TÂ=ÂOH, O, Cl, H) MBene by first-principles calculations. Computational Materials Science, 2021, 199, 110810.	1.4	14
33	Sandwiching Phosphorene with Iron Porphyrin Monolayer for High Stability and Its Biomimetic Sensor to Sensitively Detect Living Cell Released NO. Advanced Science, 2022, 9, e2104066.	5.6	13
34	Understanding charge storage in Nb₂CT_x MXene as an anode material for lithium ion batteries. Physical Chemistry Chemical Physics, 2021, 23, 23173-23183.	1.3	12
35	On the small angle twist sub-grain boundaries in Ti3AlC2. Scientific Reports, 2016, 6, 23943.	1.6	8
36	On the Faceted and Inclined Twin Boundary of Titanium Carbide Derived from Nanolaminated Ti₃AlC₂. Journal of the American Ceramic Society, 2015, 98, 1664-1667.	1.9	4

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37	Precursorâ€Directed Nucleation and Selfâ€Assembly Growth: From Hollow Microprisms to Nanoplatelets. ChemNanoMat, 2017, 3, 292-297.	1.5	3