Tyler S Mathis

List of Publications by Year
in descending order

28 papers	4,876 citations	279798 23 h-index	501196 28 g-index
30 all docs	30 docs citations	30 times ranked	5807 citing authors

#	Article	IF	Citations
1	Water dynamics in pristine and porous <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ti</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">T</mml:mi><mml:mi>x</mml:mi></mml:msub></mml:mrow></mml:math> MXene as probed by quasielastic neutron scattering. Physical Review Materials, 2022, 6, .	2.4	1
2	Additiveâ€Free Aqueous MXene Inks for Thermal Inkjet Printing on Textiles. Small, 2021, 17, .	10.0	61
3	Optimizing Ion Pathway in Titanium Carbide MXene for Practical Highâ€Rate Supercapacitor. Advanced Energy Materials, 2021, 11, 2003025.	19.5	152
4	Modified MAX Phase Synthesis for Environmentally Stable and Highly Conductive Ti₃C₂ MXene. ACS Nano, 2021, 15, 6420-6429.	14.6	417
5	Probing the In Situ Pseudocapacitive Charge Storage in Ti₃C₂ MXene Thin Films with X-ray Reflectivity. ACS Applied Materials & Interfaces, 2021, 13, 43597-43605.	8.0	8
6	Titanium Carbide MXene Shows an Electrochemical Anomaly in Water-in-Salt Electrolytes. ACS Nano, 2021, 15, 15274-15284.	14.6	56
7	MXene-infused bioelectronic interfaces for multiscale electrophysiology and stimulation. Science Translational Medicine, 2021, 13, eabf8629.	12.4	68
8	Maximizing ion accessibility in MXene-knotted carbon nanotube composite electrodes for high-rate electrochemical energy storage. Nature Communications, 2020, 11, 6160.	12.8	183
9	Superfast high-energy storage hybrid device composed of MXene and Chevrel-phase electrodes operated in saturated LiCl electrolyte solution. Journal of Materials Chemistry A, 2019, 7, 19761-19773.	10.3	32
10	Diffusion-Induced Transient Stresses in Li-Battery Electrodes Imaged by Electrochemical Quartz Crystal Microbalance with Dissipation Monitoring and Environmental Scanning Electron Microscopy. ACS Energy Letters, 2019, 4, 1907-1917.	17.4	17
11	Energy Storage Data Reporting in Perspectiveâ€”Guidelines for Interpreting the Performance of Electrochemical Energy Storage Systems. Advanced Energy Materials, 2019, 9, 1902007.	19.5	793
12	Tuning the Electrochemical Performance of Titanium Carbide MXene by Controllable In Situ Anodic Oxidation. Angewandte Chemie, 2019, 131, 18013-18019.	2.0	38
13	Tuning the Electrochemical Performance of Titanium Carbide MXene by Controllable In Situ Anodic Oxidation. Angewandte Chemie - International Edition, 2019, 58, 17849-17855.	13.8	117
14	Influences from solvents on charge storage in titanium carbide MXenes. Nature Energy, 2019, 4, 241-248.	39.5	363
15	Direct Writing of Additiveâ€Free MXeneâ€inâ€Water Ink for Electronics and Energy Storage. Advanced Materials Technologies, 2019, 4, 1800256.	5.8	112
16	Selective Etching of Silicon from Ti₃SiC₂ (MAX) To Obtain 2D Titanium Carbide (MXene). Angewandte Chemie - International Edition, 2018, 57, 5444-5448.	13.8	299
17	Layer-by-layer assembly of MXene and carbon nanotubes on electrospun polymer films for flexible energy storage. Nanoscale, 2018, 10, 6005-6013.	5.6	184
18	Influence of thermal treatment conditions on capacitive deionization performance and charge efficiency of carbon electrodes. Separation and Purification Technology, 2018, 202, 67-75.	7.9	21

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19	Selective Etching of Silicon from Ti₃SiC₂ (MAX) To Obtain 2D Titanium Carbide (MXene). Angewandte Chemie, 2018, 130, 5542-5546.	2.0	127
20	In Situ Acoustic Diagnostics of Particle-Binder Interactions in Battery Electrodes. Joule, 2018, 2, 988-1003.	24.0	29
21	Development of asymmetric supercapacitors with titanium carbide-reduced graphene oxide couples as electrodes. Electrochimica Acta, 2018, 259, 752-761.	5.2	103
22	Thickness-independent capacitance of vertically aligned liquid-crystalline MXenes. Nature, 2018, 557, 409-412.	27.8	965
23	Direct Assessment of Nanoconfined Water in 2D Ti₃C₂ Electrode Interspaces by a Surface Acoustic Technique. Journal of the American Chemical Society, 2018, 140, 8910-8917.	13.7	102
24	Processing of Onion-like Carbon for Electrochemical Capacitors. ECS Journal of Solid State Science and Technology, 2017, 6, M3103-M3108.	1.8	14
25	Nanodiamonds suppress the growth of lithium dendrites. Nature Communications, 2017, 8, 336.	12.8	327
26	Selective Charging Behavior in an Ionic Mixture Electrolyte-Supercapacitor System for Higher Energy and Power. Journal of the American Chemical Society, 2017, 139, 18681-18687.	13.7	101
27	Demonstration of Li-Ion Capacity of MAX Phases. ACS Energy Letters, 2016, 1, 1094-1099.	17.4	57
28	An Electrochemical Capacitor with Applicable Energy Density of 7.4 Wh/kg at Average Power Density of 3000 W/kg. Nano Letters, 2015, 15, 3189-3194.	9.1	118