Michel Barsoum

List of Publications by Year
in descending order

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468 papers	88,191 citations	729 120 h-index	339 285 g-index
498 all docs	498 docs citations	498 times ranked	23897 citing authors

#	Article	IF	Citations
1	Twoâ€Đimensional Nanocrystals Produced by Exfoliation of Ti₃AlC₂. Advanced Materials, 2011, 23, 4248-4253.	11.1	7,931
2	25th Anniversary Article: MXenes: A New Family of Twoâ€Đimensional Materials. Advanced Materials, 2014, 26, 992-1005.	11.1	4,547
3	Conductive two-dimensional titanium carbide â€˜clayâ€™ with high volumetric capacitance. Nature, 2014, 516, 78-81.	13.7	4,306
4	Two-Dimensional Transition Metal Carbides. ACS Nano, 2012, 6, 1322-1331.	7.3	3,453
5	Cation Intercalation and High Volumetric Capacitance of Two-Dimensional Titanium Carbide. Science, 2013, 341, 1502-1505.	6.0	3,329
6	The MN+1AXN phases: A new class of solids. Progress in Solid State Chemistry, 2000, 28, 201-281.	3.9	2,967
7	Intercalation and delamination of layered carbides and carbonitrides. Nature Communications, 2013, 4, 1716.	5.8	2,095
8	Flexible and conductive MXene films and nanocomposites with high capacitance. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16676-16681.	3.3	1,713
9	Ultra-high-rate pseudocapacitive energy storage in two-dimensional transition metal carbides. Nature Energy, 2017, 2, .	19.8	1,626
10	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
11	Synthesis and Characterization of a Remarkable Ceramic: Ti3SiC2. Journal of the American Ceramic Society, 1996, 79, 1953-1956.	1.9	1,486
12	Two-Dimensional, Ordered, Double Transition Metals Carbides (MXenes). ACS Nano, 2015, 9, 9507-9516.	7.3	1,395
13	X-ray photoelectron spectroscopy of select multi-layered transition metal carbides (MXenes). Applied Surface Science, 2016, 362, 406-417.	3.1	1,369
14	MXene: a promising transition metal carbide anode for lithium-ion batteries. Electrochemistry Communications, 2012, 16, 61-64.	2.3	1,252
15	Transparent Conductive Two-Dimensional Titanium Carbide Epitaxial Thin Films. Chemistry of Materials, 2014, 26, 2374-2381.	3.2	1,173
16	Role of Surface Structure on Li-Ion Energy Storage Capacity of Two-Dimensional Transition-Metal Carbides. Journal of the American Chemical Society, 2014, 136, 6385-6394.	6.6	1,164
17	Flexible MXene/Carbon Nanotube Composite Paper with High Volumetric Capacitance. Advanced Materials, 2015, 27, 339-345.	11.1	1,125
18	Synthesis and Characterization of 2D Molybdenum Carbide (MXene). Advanced Functional Materials, 2016, 26, 3118-3127.	7.8	945

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19	Elastic and Mechanical Properties of the MAX Phases. Annual Review of Materials Research, 2011, 41, 195-227.	4.3	894
20	Synthesis of two-dimensional titanium nitride Ti₄N₃ (MXene). Nanoscale, 2016, 8, 11385-11391.	2.8	878
21	Pseudocapacitive Electrodes Produced by Oxidantâ€Free Polymerization of Pyrrole between the Layers of 2D Titanium Carbide (MXene). Advanced Materials, 2016, 28, 1517-1522.	11.1	850
22	Prediction and Characterization of MXene Nanosheet Anodes for Non-Lithium-Ion Batteries. ACS Nano, 2014, 8, 9606-9615.	7.3	814
23	Amineâ€Assisted Delamination of Nb₂C MXene for Liâ€Ion Energy Storage Devices. Advanced Materials, 2015, 27, 3501-3506.	11.1	749
24	Highly Conductive Optical Quality Solutionâ€Processed Films of 2D Titanium Carbide. Advanced Functional Materials, 2016, 26, 4162-4168.	7.8	680
25	Nanoporous carbide-derived carbon with tunable pore size. Nature Materials, 2003, 2, 591-594.	13.3	653
26	One-step synthesis of nanocrystalline transition metal oxides on thin sheets of disordered graphitic carbon by oxidation of MXenes. Chemical Communications, 2014, 50, 7420-7423.	2.2	614
27	Dye adsorption and decomposition on two-dimensional titanium carbide in aqueous media. Journal of Materials Chemistry A, 2014, 2, 14334-14338.	5.2	602
28	Fabrication of Ti₃C₂T_x MXene Transparent Thin Films with Tunable Optoelectronic Properties. Advanced Electronic Materials, 2016, 2, 1600050.	2.6	587
29	Synthesis and Characterization of Ti₃AlC₂. Journal of the American Ceramic Society, 2000, 83, 825-832.	1.9	563
30	The MAX Phases: Unique New Carbide and Nitride Materials. American Scientist, 2001, 89, 334.	0.1	553
31	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
32	Probing the Mechanism of High Capacitance in 2D Titanium Carbide Using In Situ Xâ€Ray Absorption Spectroscopy. Advanced Energy Materials, 2015, 5, 1500589.	10.2	521
33	Layered machinable ceramics for high temperature applications. Scripta Materialia, 1997, 36, 535-541.	2.6	509
34	Ion-Exchange and Cation Solvation Reactions in Ti₃C₂ MXene. Chemistry of Materials, 2016, 28, 3507-3514.	3.2	499
35	On the Chemical Diversity of the MAX Phases. Trends in Chemistry, 2019, 1, 210-223.	4.4	490
36	Synthesis and characterization of two-dimensional Nb₄C₃ (MXene). Chemical Communications, 2014, 50, 9517-9520.	2.2	481

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37	Processing and characterization of Ti2AlC, Ti2AlN, and Ti2AlC0.5N0.5. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2000, 31, 1857-1865.	1.1	480
38	Porous Twoâ€Dimensional Transition Metal Carbide (MXene) Flakes for Highâ€Performance Liâ€Ion Storage. ChemElectroChem, 2016, 3, 689-693.	1.7	452
39	First principles study of two-dimensional early transition metal carbides. MRS Communications, 2012, 2, 133-137.	0.8	429
40	Atomically Resolved Structural and Chemical Investigation of Single MXene Sheets. Nano Letters, 2015, 15, 4955-4960.	4.5	415
41	Ten Years of Progress in the Synthesis and Development of MXenes. Advanced Materials, 2021, 33, e2103393.	11.1	410
42	Control of electronic properties of 2D carbides (MXenes) by manipulating their transition metal layers. Nanoscale Horizons, 2016, 1, 227-234.	4.1	394
43	Overview of the synthesis of MXenes and other ultrathin 2D transition metal carbides and nitrides. Current Opinion in Solid State and Materials Science, 2019, 23, 149-163.	5.6	353
44	Kinetics of aluminum extraction from Ti3AlC2 in hydrofluoric acid. Materials Chemistry and Physics, 2013, 139, 147-152.	2.0	348
45	Fully reversible, dislocation-based compressive deformation of Ti3SiC2 to 1 GPa. Nature Materials, 2003, 2, 107-111.	13.3	342
46	Processing and Mechanical Properties of Ti₃SiC₂: II, Effect of Grain Size and Deformation Temperature. Journal of the American Ceramic Society, 1999, 82, 2855-2860.	1.9	335
47	A Non-Aqueous Asymmetric Cell with a Ti₂C-Based Two-Dimensional Negative Electrode. Journal of the Electrochemical Society, 2012, 159, A1368-A1373.	1.3	332
48	Damage Mechanisms around Hardness Indentations in Ti₃SiC₂. Journal of the American Ceramic Society, 1997, 80, 513-516.	1.9	331
49	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
50	Thermal properties of Ti3SiC2. Journal of Physics and Chemistry of Solids, 1999, 60, 429-439.	1.9	315
51	Layered Orthorhombic Nb₂O₅@Nb₄C₃T_x and TiO₂@Ti₃C₂T_x Hierarchical Composites for High Performance Liâ€ion Batteries. Advanced Functional Materials, 2016, 26, 4143-4151.	7.8	309
52	2D Ti3C2Tz MXene Synthesized by Water-free Etching of Ti3AlC2 in Polar Organic Solvents. CheM, 2020, 6, 616-630.	5.8	303
53	MXenes: An Introduction of Their Synthesis, Select Properties, and Applications. Trends in Chemistry, 2019, 1, 656-669.	4.4	302
54	Dislocations, kink bands, and room-temperature plasticity of Ti3SiC2. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1999, 30, 1727-1738.	1.1	301

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55	Oxidation Of Ti3SiC2 in Air. Journal of the Electrochemical Society, 1997, 144, 2508-2516.	1.3	297
56	2D titanium carbide and transition metal oxides hybrid electrodes for Li-ion storage. Nano Energy, 2016, 30, 603-613.	8.2	293
57	A Critical Review of the Oxidation of Ti₂AlC, Ti₃AlC₂and Cr₂AlC in Air. Materials Research Letters, 2013, 1, 115-125.	4.1	286
58	Solving the Capacitive Paradox of 2D MXene using Electrochemical Quartzâ€Crystal Admittance and In Situ Electronic Conductance Measurements. Advanced Energy Materials, 2015, 5, 1400815.	10.2	283
59	Processing and Mechanical Properties of Ti₃SiC₂: I, Reaction Path and Microstructure Evolution. Journal of the American Ceramic Society, 1999, 82, 2849-2854.	1.9	269
60	Room-temperature ductile carbides. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1999, 30, 363-369.	1.1	263
61	Electrical transport, thermal transport, and elastic properties ofM2AlC(M=Ti, Cr, Nb, and V). Physical Review B, 2005, 72, .	1.1	258
62	Wâ€Based Atomic Laminates and Their 2D Derivative W_{1.33}C MXene with Vacancy Ordering. Advanced Materials, 2018, 30, e1706409.	11.1	240
63	Twoâ€Dimensional Nbâ€Based M₄C₃ Solid Solutions (MXenes). Journal of the American Ceramic Society, 2016, 99, 660-666.	1.9	234
64	The effect of hydrazine intercalation on the structure and capacitance of 2D titanium carbide (MXene). Nanoscale, 2016, 8, 9128-9133.	2.8	225
65	Edge Capping of 2Dâ€MXene Sheets with Polyanionic Salts To Mitigate Oxidation in Aqueous Colloidal Suspensions. Angewandte Chemie - International Edition, 2019, 58, 12655-12660.	7.2	225
66	Synthesis and mechanical properties of Nb2AlC and (Ti,Nb)2AlC. Journal of Alloys and Compounds, 2002, 347, 271-278.	2.8	221
67	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
68	On the elastic properties and mechanical damping of Ti3SiC2, Ti3GeC2, Ti3Si0.5Al0.5C2 and Ti2AlC in the 300â€“1573K temperature range. Acta Materialia, 2006, 54, 2757-2767.	3.8	218
69	Experimental and theoretical characterization of ordered MAX phases Mo2TiAlC2 and Mo2Ti2AlC3. Journal of Applied Physics, 2015, 118, .	1.1	217
70	MAX phase carbides and nitrides: Properties for future nuclear power plant in-core applications and neutron transmutation analysis. Nuclear Engineering and Design, 2012, 244, 17-24.	0.8	215
71	Loading Actinides in Multilayered Structures for Nuclear Waste Treatment: The First Case Study of Uranium Capture with Vanadium Carbide MXene. ACS Applied Materials & Interfaces, 2016, 8, 16396-16403.	4.0	214
72	High mass loading, binder-free MXene anodes for high areal capacity Li-ion batteries. Electrochimica Acta, 2015, 163, 246-251.	2.6	204

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73	Electrical conductivity, thermopower, and Hall effect ofTi3AlC2,Ti4AlN3,andTi3SiC2. Physical Review B, 2000, 62, 10194-10198.	1.1	197
74	Low temperature dependencies of the elastic properties of Ti4AlN3, Ti3Al1.1C1.8, and Ti3SiC2. Journal of Applied Physics, 2000, 87, 1701-1703.	1.1	192
75	Ti3SiC2 has negligible thermopower. Nature, 2000, 407, 581-582.	13.7	190
76	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
77	Alkylammonium Cation Intercalation into Ti₃C₂ (MXene): Effects on Properties and Ion-Exchange Capacity Estimation. Chemistry of Materials, 2017, 29, 1099-1106.	3.2	188
78	A critical analysis of the X-ray photoelectron spectra of Ti3C2Tz MXenes. Matter, 2021, 4, 1224-1251.	5.0	180
79	Effect of neutron irradiation on select MAX phases. Acta Materialia, 2015, 85, 132-143.	3.8	175
80	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
81	One MAX phase, different MXenes: A guideline to understand the crucial role of etching conditions on Ti3C2Tx surface chemistry. Applied Surface Science, 2020, 530, 147209.	3.1	172
82	Electronic properties of freestanding Ti3C2Tx MXene monolayers. Applied Physics Letters, 2016, 108, .	1.5	171
83	Direct Measurement of Surface Termination Groups and Their Connectivity in the 2D MXene V₂CT_x Using NMR Spectroscopy. Journal of Physical Chemistry C, 2015, 119, 13713-13720.	1.5	169
84	On the tribology of the MAX phases and their composites during dry sliding: A review. Wear, 2011, 271, 1878-1894.	1.5	168
85	Ti3SiC2: A damage tolerant ceramic studied with nano-indentations and transmission electron microscopy. Acta Materialia, 2003, 51, 2859-2872.	3.8	165
86	Fatigue-crack growth and fracture properties of coarse and fine-grained Ti3SiC2. Scripta Materialia, 2000, 42, 761-767.	2.6	163
87	Compression behavior ofM2AlC(M=Ti, V, Cr, Nb, and Ta) phases to above50GPa. Physical Review B, 2006, 73, .	1.1	162
88	Firstâ€order Raman scattering of the MAX phases: Ti₂AlN, Ti₂AlC_{0.5}N_{0.5}, Ti₂AlC, (Ti_{0.5}V_{0.5})₂AlC, V₂AlC, Ti₃AlC₂, and Ti₃GeC₂. Journal of Raman Spectroscopy, 2012, 43, 168-172.	1.2	159
89	STRUCTURE AND CRYSTAL CHEMISTRY OF Ti3SiC2. Journal of Physics and Chemistry of Solids, 1998, 59, 1437-1443.	1.9	158
90	Effect of grain size on friction and wear behavior of Ti3SiC2. Wear, 2000, 238, 125-130.	1.5	154

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91	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
92	Mo2TiAlC2: A new ordered layered ternary carbide. Scripta Materialia, 2015, 101, 5-7.	2.6	153
93	Carbon nanofiber bridged two-dimensional titanium carbide as a superior anode for lithium-ion batteries. Journal of Materials Chemistry A, 2015, 3, 14096-14100.	5.2	152
94	Effect of Edge Charges on Stability and Aggregation of Ti₃C₂T_z MXene Colloidal Suspensions. Journal of Physical Chemistry C, 2018, 122, 27745-27753.	1.5	150
95	Elastic and electronic properties of select M2AX phases. Applied Physics Letters, 2004, 84, 508-510.	1.5	149
96	Antibacterial properties of electrospun Ti₃C₂T_z(MXene)/chitosan nanofibers. RSC Advances, 2018, 8, 35386-35394.	1.7	149
97	The Topotactic Transformation of Ti3SiC2 into a Partially Ordered Cubic Ti â€‰(â€‰â€‰Câ€‰0.67Si0.06â€‰)â€‰ Phase by the Diffusion of Si into Molten Cryolite. Journal of the Electrochemical Society, 1999, 146, 3919-3923.	1.3	148
98	Kink bands, nonlinear elasticity and nanoindentations in graphite. Carbon, 2004, 42, 1435-1445.	5.4	148
99	Driving Force and Mechanism for Spontaneous Metal Whisker Formation. Physical Review Letters, 2004, 93, 206104.	2.9	147
100	Contact Damage Accumulation in Tic₃SiC₂. Journal of the American Ceramic Society, 1998, 81, 225-228.	1.9	147
101	Thermal and electrical properties of Nb2AlC, (Ti, Nb)2AlC and Ti2AlC. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 2775-2779.	1.1	146
102	Optical properties of Ti3SiC2 and Ti4AlN3. Applied Physics Letters, 2008, 92, .	1.5	143
103	Crystal-chemistry of the Ti3AlC2 and Ti4AlN3 layered carbide/nitride phasesâ€”characterization by XPS. Journal of Physics and Chemistry of Solids, 2001, 62, 811-817.	1.9	142
104	Mo₂Ga₂C: a new ternary nanolaminated carbide. Chemical Communications, 2015, 51, 6560-6563.	2.2	141
105	Synthesis and Characterization of an Alumina Forming Nanolaminated Boride: MoAlB. Scientific Reports, 2016, 6, 26475.	1.6	141
106	Synthesis of nanoporous carbide-derived carbon by chlorination of titanium silicon carbide. Carbon, 2005, 43, 2075-2082.	5.4	139
107	Vibrational behavior of theMn+1AXnphases from first-order Raman scattering(M=Ti,V,Cr,A=Si,X=C,N). Physical Review B, 2005, 71, .	1.1	139
108	Alkali-induced crumpling of Ti₃C₂T_x(MXene) to form 3D porous networks for sodium ion storage. Chemical Communications, 2018, 54, 4533-4536.	2.2	135

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109	A progress report on the MAB phases: atomically laminated, ternary transition metal borides. International Materials Reviews, 2020, 65, 226-255.	9.4	135
110	The Raman spectrum of Ti3SiC2. Journal of Applied Physics, 1998, 84, 5817-5819.	1.1	130
111	Effect of temperature, strain rate and grain size on the mechanical response of Ti3SiC2 in tension. Acta Materialia, 2002, 50, 1297-1306.	3.8	129
112	On the determination of spherical nanoindentation stressâ€“strain curves. Journal of Materials Research, 2006, 21, 2628-2637.	1.2	129
113	Transparent, conductive solution processed spincast 2D Ti₂CT_x (MXene) films. Materials Research Letters, 2017, 5, 391-398.	4.1	127
114	A genomic approach to the stability, elastic, and electronic properties of the MAX phases. Physica Status Solidi (B): Basic Research, 2014, 251, 1480-1497.	0.7	126
115	Diffusion kinetics of the carburization and silicidation of Ti3SiC2. Journal of Applied Physics, 1998, 83, 112-119.	1.1	125
116	Highâ€Resolution Transmission Electron Microscopy of Ti₄AlN₃, or Ti₃Al₂N₂ Revisited. Journal of the American Ceramic Society, 1999, 82, 2545-2547.	1.9	125
117	Conductive transparent V 2 CT x (MXene) films. FlatChem, 2018, 8, 25-30.	2.8	123
118	Synthesis and mechanical properties of Ti3GeC2 and Ti3(SixGe1â^'x)C2 (x = 0.5, 0.75) solid solutions. Journal of Alloys and Compounds, 2004, 376, 287-295.	2.8	122
119	Enhanced and tunable surface plasmons in two-dimensional<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:mi mathvariant="normal">C</mml:mi><mml:mn>2</mml:mn></mml:mrow></mml:math>stacks: Electronic structure versus boundary effects. Physical Review B, 2014, 89, .	1.1	122
120	Tensile properties of Ti3SiC2 in the 25â€“1300Â°C temperature range. Acta Materialia, 2000, 48, 453-459.	3.8	120
121	Mesoporous carbide-derived carbon with porosity tuned for efficient adsorption of cytokines. Biomaterials, 2006, 27, 5755-5762.	5.7	119
122	Kinking Nonlinear Elastic Solids, Nanoindentations, and Geology. Physical Review Letters, 2004, 92, 255508.	2.9	117
123	2D MXene-containing polymer electrolytes for all-solid-state lithium metal batteries. Nanoscale Advances, 2019, 1, 395-402.	2.2	117
124	Synthesis of the new MAX phase Zr 2 AlC. Journal of the European Ceramic Society, 2016, 36, 1847-1853.	2.8	116
125	Mesoporous MXene powders synthesized by acid induced crumpling and their use as Na-ion battery anodes. Materials Research Letters, 2018, 6, 230-235.	4.1	115
126	Preparation and characterization of polymerâ€Ti₃C₂T_x (MXene) composite nanofibers produced via electrospinning. Journal of Applied Polymer Science, 2017, 134, 45295.	1.3	114

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127	Beyond Gold: Spinâ€Coated Ti₃C₂â€Based MXene Photodetectors. Advanced Materials, 2019, 31, e1903271.	11.1	114
128	Synthesis and characterization of Hf2PbC, Zr2PbC and M2SnC (M=Ti, Hf, Nb or Zr). Journal of the European Ceramic Society, 2000, 20, 2619-2625.	2.8	113
129	Structure of Ti4AlN3â€"a layered Mn+1AXn nitride. Materials Research Bulletin, 2000, 35, 1785-1796.	2.7	113
130	Reaction of Al with Ti3SiC2 in the 800â€"1000Â°C temperature range. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 298, 174-178.	2.6	111
131	New Solid Solution MAX Phases: (Ti_{0.5}, V_{0.5})₃AlC₂, (Nb_{0.5}, V_{0.5})₂AlC, (Nb_{0.5},) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 582 Tc	4.1	111
132	Fabrication and electrical and thermal properties of Ti2InC, Hf2InC and (Ti,Hf)2InC. Journal of Alloys and Compounds, 2002, 340, 173-179.	2.8	110
133	Microscale modeling of kinking nonlinear elastic solids. Physical Review B, 2005, 71, .	1.1	108
134	High-pressure x-ray diffraction study of Ta4AlC3. Applied Physics Letters, 2006, 88, 201902.	1.5	108
135	Micro and mesoporosity of carbon derived from ternary and binary metal carbides. Microporous and Mesoporous Materials, 2008, 112, 526-532.	2.2	108
136	Transient Plastic Phase Processing of Titanium-Boron-Carbon Composites. Journal of the American Ceramic Society, 1993, 76, 1445-1451.	1.9	107
137	X-ray high-pressure study of Ti2AlN and Ti2AlC. Journal of Physics and Chemistry of Solids, 2006, 67, 2091-2094.	1.9	107
138	Thermal expansion of select Mn+1AXn (M=earlytransitionmetal, A=Agroupelement, X=C or N) phases measured by high temperature x-ray diffraction and dilatometry. Journal of Applied Physics, 2009, 105, .	1.1	107
139	Oxidation of Ti[sub n+1]AlX[sub n] (n=1-3 and X=C, N): II. Experimental Results. Journal of the Electrochemical Society, 2001, 148, C551.	1.3	106
140	Twoâ€Ðimensional Materials: 25th Anniversary Article: MXenes: A New Family of Twoâ€Ðimensional Materials (Adv. Mater. 7/2014). Advanced Materials, 2014, 26, 982-982.	11.1	106
141	Corrosion behavior of select MAX phases in NaOH, HCl and H2SO4. Corrosion Science, 2006, 48, 4274-4282.	3.0	101
142	Incipient and regular kink bands in fully dense and 10vol.% porous Ti2AlC. Acta Materialia, 2006, 54, 1631-1639.	3.8	101
143	Tribological behavior of select MAX phases against Al2O3 at elevated temperatures. Wear, 2008, 265, 560-565.	1.5	100
144	Ambient and 550Â°C tribological behavior of select MAX phases against Ni-based superalloys. Wear, 2008, 264, 270-278.	1.5	99

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145	Tailoring of the thermal expansion of Cr2(Alx,Ge1â^'x)C phases. Journal of the European Ceramic Society, 2013, 33, 897-904.	2.8	99
146	Synthesis of the novel Zr 3 AlC 2 MAX phase. Journal of the European Ceramic Society, 2016, 36, 943-947.	2.8	98
147	MXene polymer nanocomposites: a review. Materials Today Advances, 2021, 9, 100120.	2.5	96
148	Elastic properties, thermal stability, and thermodynamic parameters of MoAlB. Physical Review B, 2017, 95, .	1.1	95
149	Mechanical and microstructural characterization of an alkali-activated slag/limestone fine aggregate concrete. Construction and Building Materials, 2009, 23, 2951-2957.	3.2	92
150	Tensile creep of coarse-grained Ti3SiC2 in the 1000â€“1200Â°C temperature range. Journal of Alloys and Compounds, 2003, 361, 299-312.	2.8	91
151	Dislocations and Stacking Faults in Ti₃SiC₂. Journal of the American Ceramic Society, 1998, 81, 1677-1681.	1.9	91
152	On the Topotactic Transformation of <scp><scp>Ti₂AlC</scp></scp> into a <scp><scp>Tiâ€“Câ€“Oâ€“F</scp></scp> Cubic Phase by Heating in Molten Lithium Fluoride in Air. Journal of the American Ceramic Society, 2011, 94, 4556-4561.	1.9	91
153	Ta2AlC and Cr2AlC Ag-based compositesâ€”New solid lubricant materials for use over a wide temperature range against Ni-based superalloys and alumina. Wear, 2007, 262, 1479-1489.	1.5	90
154	Long Time Oxidation Study of Ti[sub 3]SiC[sub 2], Ti[sub 3]SiC[sub 2]/SiC, and Ti[sub 3]SiC[sub 2]/TiC Composites in Air. Journal of the Electrochemical Society, 2003, 150, B166.	1.3	89
155	Magnesium-Ion Storage Capability of MXenes. ACS Applied Energy Materials, 2019, 2, 1572-1578.	2.5	89
156	Atomically Layered and Ordered Rare-Earth i-MAX Phases: A New Class of Magnetic Quaternary Compounds. Chemistry of Materials, 2019, 31, 2476-2485.	3.2	89
157	Synthesis and Oxidation of V[sub 2]AlC and (Ti[sub 0.5],V[sub 0.5])[sub 2]AlC in Air. Journal of the Electrochemical Society, 2004, 151, D24.	1.3	88
158	Synthesis of Carbide-Derived Carbon by Chlorination of Ti2AlC. Chemistry of Materials, 2005, 17, 2317-2322.	3.2	87
159	Kinking nonlinear elastic deformation of Ti3AlC2, Ti2AlC, Ti3Al(C0.5,N0.5)2 and Ti2Al(C0.5,N0.5). Journal of Alloys and Compounds, 2010, 498, 62-70.	2.8	86
160	General trends in the structural, electronic and elastic properties of the M3AlC2 phases (M =) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142	1.4	86
161	Atomic structure and lattice defects in nanolaminated ternary transition metal borides. Materials Research Letters, 2017, 5, 235-241.	4.1	86
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