Michel Barsoum

List of Publications by Citations

476 papers	63,429 citations	106 h-index	245 g-index
498 ext. papers	74,789 ext. citations	6.6 avg, IF	8.22 L-index

#	Paper	IF	Citations
476	Two-dimensional nanocrystals produced by exfoliation of Ti3 AlC2. *Advanced Materials*, **2011**, 23, 4248-53	24	4846
475	25th anniversary article: MXenes: a new family of two-dimensional materials. *Advanced Materials*, **2014**, 26, 992-1005	24	3141
474	Conductive two-dimensional titanium carbide 'clay' with high volumetric capacitance. *Nature*, **2014**, 516, 78-81	50.4	2849
473	Cation intercalation and high volumetric capacitance of two-dimensional titanium carbide. *Science*, **2013**, 341, 1502-5	33.3	2510
472	The MN+1AXN phases: A new class of solids: Thermodynamically stable nanolaminates. *Progress in Solid State Chemistry*, **2000**, 28, 201-281	8	2432
471	Two-dimensional transition metal carbides. *ACS Nano*, **2012**, 6, 1322-31	16.7	2382
470	Intercalation and delamination of layered carbides and carbonitrides. *Nature Communications*, **2013** , 4, 1716	17.4	1504
469	Synthesis and Characterization of a Remarkable Ceramic: Ti3SiC2. *Journal of the American Ceramic Society*, **1996**, 79, 1953-1956	3.8	1305
468	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, 16676-81	11.5	1204
467	New two-dimensional niobium and vanadium carbides as promising materials for Li-ion batteries. *Journal of the American Chemical Society*, **2013**, 135, 15966-9	16.4	1168
466	Ultra-high-rate pseudocapacitive energy storage in two-dimensional transition metal carbides. *Nature Energy*, **2017**, 2,	62.3	1071
465	MXene: a promising transition metal carbide anode for lithium-ion batteries. *Electrochemistry Communications*, **2012**, 16, 61-64	5.1	963
464	Two-Dimensional, Ordered, Double Transition Metals Carbides (MXenes). *ACS Nano*, **2015**, 9, 9507-16	16.7	923
463	Role of surface structure on Li-ion energy storage capacity of two-dimensional transition-metal carbides. *Journal of the American Chemical Society*, **2014**, 136, 6385-94	16.4	864
462	Flexible MXene/carbon nanotube composite paper with high volumetric capacitance. *Advanced Materials*, **2015**, 27, 339-45	24	860
461	X-ray photoelectron spectroscopy of select multi-layered transition metal carbides (MXenes). *Applied Surface Science*, **2016**, 362, 406-417	6.7	834
460	Transparent Conductive Two-Dimensional Titanium Carbide Epitaxial Thin Films. *Chemistry of Materials*, **2014**, 26, 2374-2381	9.6	778

459	Elastic and Mechanical Properties of the MAX Phases. *Annual Review of Materials Research*, **2011**, 41, 195-227	12.8	673
458	Prediction and characterization of MXene nanosheet anodes for non-lithium-ion batteries. *ACS Nano*, **2014**, 8, 9606-15	16.7	644
457	Synthesis and Characterization of 2D Molybdenum Carbide (MXene). *Advanced Functional Materials*, **2016**, 26, 3118-3127	15.6	640
456	Pseudocapacitive Electrodes Produced by Oxidant-Free Polymerization of Pyrrole between the Layers of 2D Titanium Carbide (MXene). *Advanced Materials*, **2016**, 28, 1517-22	24	614
455	Nanoporous carbide-derived carbon with tunable pore size. *Nature Materials*, **2003**, 2, 591-4	27	599
454	Amine-Assisted Delamination of Nb2C MXene for Li-Ion Energy Storage Devices. *Advanced Materials*, **2015**, 27, 3501-6	24	555
453	The MAX Phases: Unique New Carbide and Nitride Materials. *American Scientist*, **2001**, 89, 334	2.7	500
452	Synthesis of two-dimensional titanium nitride Ti4N3 (MXene). *Nanoscale*, **2016**, 8, 11385-91	7.7	487
451	Synthesis and Characterization of Ti3AlC2. *Journal of the American Ceramic Society*, **2004**, 83, 825-832	3.8	477
450	Highly Conductive Optical Quality Solution-Processed Films of 2D Titanium Carbide. *Advanced Functional Materials*, **2016**, 26, 4162-4168	15.6	470
449	Layered machinable ceramics for high temperature applications. *Scripta Materialia*, **1997**, 36, 535-541	5.6	465
448	**2013**,		460
447	Processing and characterization of Ti2AlC, Ti2AlN, and Ti2AlC0.5N0.5. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2000**, 31, 1857-1865	2.3	432
446	One-step synthesis of nanocrystalline transition metal oxides on thin sheets of disordered graphitic carbon by oxidation of MXenes. *Chemical Communications*, **2014**, 50, 7420-3	5.8	427
445	Dye adsorption and decomposition on two-dimensional titanium carbide in aqueous media. *Journal of Materials Chemistry A*, **2014**, 2, 14334-14338	13	419
444	Fabrication of Ti3C2Tx MXene Transparent Thin Films with Tunable Optoelectronic Properties. *Advanced Electronic Materials*, **2016**, 2, 1600050	6.4	407
443	Probing the Mechanism of High Capacitance in 2D Titanium Carbide Using In Situ X-Ray Absorption Spectroscopy. *Advanced Energy Materials*, **2015**, 5, 1500589	21.8	374
442	Ion-Exchange and Cation Solvation Reactions in Ti3C2 MXene. *Chemistry of Materials*, **2016**, 28, 3507-3514	9.46	361

441	Two-dimensional MoC MXene with divacancy ordering prepared from parent 3D laminate with in-plane chemical ordering. *Nature Communications*, **2017**, 8, 14949	17.4	334
440	Synthesis and characterization of two-dimensional Nb4C3 (MXene). *Chemical Communications*, **2014**, 50, 9517-20	5.8	321
439	First principles study of two-dimensional early transition metal carbides. *MRS Communications*, **2012**, 2, 133-137	2.7	316
438	Fully reversible, dislocation-based compressive deformation of Ti3SiC2 to 1 GPa. *Nature Materials*, **2003**, 2, 107-11	27	304
437	Processing and Mechanical Properties of Ti3SiC2: II, Effect of Grain Size and Deformation Temperature. *Journal of the American Ceramic Society*, **2004**, 82, 2855-2860	3.8	298
436	Porous Two-Dimensional Transition Metal Carbide (MXene) Flakes for High-Performance Li-Ion Storage. *ChemElectroChem*, **2016**, 3, 689-693	4.3	298
435	Damage Mechanisms around Hardness Indentations in Ti3SiC2. *Journal of the American Ceramic Society*, **2005**, 80, 513-516	3.8	290
434	Thermal properties of Ti3SiC2. *Journal of Physics and Chemistry of Solids*, **1999**, 60, 429-439	3.9	276
433	Atomically Resolved Structural and Chemical Investigation of Single MXene Sheets. *Nano Letters*, **2015**, 15, 4955-60	11.5	270
432	A Non-Aqueous Asymmetric Cell with a Ti2C-Based Two-Dimensional Negative Electrode. *Journal of the Electrochemical Society*, **2012**, 159, A1368-A1373	3.9	270
431	Oxidation Of Ti3SiC2 in Air. *Journal of the Electrochemical Society*, **1997**, 144, 2508-2516	3.9	270
430	Dislocations, kink bands, and room-temperature plasticity of Ti3SiC2. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1999**, 30, 1727-1738	2.3	269
429	Layered Orthorhombic Nb2O5@Nb4C3Tx and TiO2@Ti3C2Tx Hierarchical Composites for High Performance Li-ion Batteries. *Advanced Functional Materials*, **2016**, 26, 4143-4151	15.6	244
428	Control of electronic properties of 2D carbides (MXenes) by manipulating their transition metal layers. *Nanoscale Horizons*, **2016**, 1, 227-234	10.8	242
427	Room-temperature ductile carbides. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1999**, 30, 363-369	2.3	235
426	Processing and Mechanical Properties of Ti3SiC2: I, Reaction Path and Microstructure Evolution. *Journal of the American Ceramic Society*, **2004**, 82, 2849-2854	3.8	233
425	2D titanium carbide and transition metal oxides hybrid electrodes for Li-ion storage. *Nano Energy*, **2016**, 30, 603-613	17.1	229
424	On the Chemical Diversity of the MAX Phases. *Trends in Chemistry*, **2019**, 1, 210-223	14.8	227

423	Kinetics of aluminum extraction from Ti3AlC2 in hydrofluoric acid. *Materials Chemistry and Physics*, **2013**, 139, 147-152	4.4	227
422	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	5.6	225
421	Solving the Capacitive Paradox of 2D MXene using Electrochemical Quartz-Crystal Admittance and In Situ Electronic Conductance Measurements. *Advanced Energy Materials*, **2015**, 5, 1400815	21.8	225
420	Electrical transport, thermal transport, and elastic properties of M2AlC (M=Ti, Cr, Nb, and V). *Physical Review B*, **2005**, 72,	3.3	223
419	A Critical Review of the Oxidation of Ti2AlC, Ti3AlC2 and Cr2AlC in Air. *Materials Research Letters*, **2013**, 1, 115-125	7.4	217
418	On the elastic properties and mechanical damping of Ti3SiC2, Ti3GeC2, Ti3Si0.5Al0.5C2 and Ti2AlC in the 300–1573 K temperature range. *Acta Materialia*, **2006**, 54, 2757-2767	8.4	201
417	Synthesis and mechanical properties of Nb2AlC and (Ti,Nb)2AlC. *Journal of Alloys and Compounds*, **2002**, 347, 271-278	5.7	200
416	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	12	178
415	Electrical conductivity, thermopower, and Hall effect of Ti3AlC2, Ti4AlN3, and Ti3SiC2. *Physical Review B*, **2000**, 62, 10194-10198	3.3	178
414	Low temperature dependencies of the elastic properties of Ti4AlN3, Ti3Al1.1C1.8, and Ti3SiC2. *Journal of Applied Physics*, **2000**, 87, 1701-1703	2.5	172
413	High mass loading, binder-free MXene anodes for high areal capacity Li-ion batteries. *Electrochimica Acta*, **2015**, 163, 246-251	6.7	169
412	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	1.8	165
411	MXenes: An Introduction of Their Synthesis, Select Properties, and Applications. *Trends in Chemistry* , **2019**, 1, 656-669	14.8	164
410	The effect of hydrazine intercalation on the structure and capacitance of 2D titanium carbide (MXene). *Nanoscale*, **2016**, 8, 9128-33	7.7	161
409	Ti3SiC2 has negligible thermopower. *Nature*, **2000**, 407, 581-2	50.4	155
408	Two-Dimensional Nb-Based M4C3 Solid Solutions (MXenes). *Journal of the American Ceramic Society* , **2016**, 99, 660-666	3.8	153
407	Two-Dimensional Titanium Carbide MXene As a Cathode Material for Hybrid Magnesium/Lithium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 4296-4300	9.5	149
406	Experimental and theoretical characterization of ordered MAX phases Mo2TiAlC2 and Mo2Ti2AlC3. *Journal of Applied Physics*, **2015**, 118, 094304	2.5	149

405	STRUCTURE AND CRYSTAL CHEMISTRY OF Ti3SiC2. *Journal of Physics and Chemistry of Solids*, **1998**, 59, 1437-1443	3.9	149
404	Compression behavior of M2AlC (M=Ti, V, Cr, Nb, and Ta) phases to above 50GPa. *Physical Review B*, **2006**, 73,	3.3	147
403	Effect of neutron irradiation on select MAX phases. *Acta Materialia*, **2015**, 85, 132-143	8.4	146
402	On the organization and thermal behavior of functional groups on Ti 3 C 2 MXene surfaces in vacuum. *2D Materials*, **2018**, 5, 015002	5.9	146
401	Effect of grain size on friction and wear behavior of Ti3SiC2. *Wear*, **2000**, 238, 125-130	3.5	146
400	Fatigue-crack growth and fracture properties of coarse and fine-grained Ti3SiC2. *Scripta Materialia*, **2000**, 42, 761-767	5.6	146
399	W-Based Atomic Laminates and Their 2D Derivative W C MXene with Vacancy Ordering. *Advanced Materials*, **2018**, 30, e1706409	24	145
398	Elastic and electronic properties of select M2AX phases. *Applied Physics Letters*, **2004**, 84, 508-510	3.4	141
397	Ti3SiC2: A damage tolerant ceramic studied with nano-indentations and transmission electron microscopy. *Acta Materialia*, **2003**, 51, 2859-2872	8.4	141
396	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, 16396-403	9.5	138
395	Contact Damage Accumulation in Tic3SiC2. *Journal of the American Ceramic Society*, **2005**, 81, 225-228	3.8	134
394	Driving force and mechanism for spontaneous metal whisker formation. *Physical Review Letters*, **2004**, 93, 206104	7.4	129
393	On the tribology of the MAX phases and their composites during dry sliding: A review. *Wear*, **2011**, 271, 1878-1894	3.5	127
392	Alkylammonium Cation Intercalation into Ti3C2 (MXene): Effects on Properties and Ion-Exchange Capacity Estimation. *Chemistry of Materials*, **2017**, 29, 1099-1106	9.6	126
391	Carbon nanofiber bridged two-dimensional titanium carbide as a superior anode for lithium-ion batteries. *Journal of Materials Chemistry A*, **2015**, 3, 14096-14100	13	124
390	The Topotactic Transformation of Ti3SiC2 into a Partially Ordered Cubic Ti（C 0.67Si0.06）Phase by the Diffusion of Si into Molten Cryolite. *Journal of the Electrochemical Society*, **1999**, 146, 3919-3923	3.9	124
389	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	2.3	123
388	Kink bands, nonlinear elasticity and nanoindentations in graphite. *Carbon*, **2004**, 42, 1435-1445	10.4	121

387	Synthesis of nanoporous carbide-derived carbon by chlorination of titanium silicon carbide. *Carbon*, **2005**, 43, 2075-2082	10.4	120
386	Electronic properties of freestanding Ti3C2Tx MXene monolayers. *Applied Physics Letters*, **2016**, 108, 033102	3.4	120
385	2D Ti3C2Tz MXene Synthesized by Water-free Etching of Ti3AlC2 in Polar Organic Solvents. *CheM*, **2020**, 6, 616-630	16.2	119
384	Edge Capping of 2D-MXene Sheets with Polyanionic Salts To Mitigate Oxidation in Aqueous Colloidal Suspensions. *Angewandte Chemie - International Edition*, **2019**, 58, 12655-12660	16.4	119
383	The Raman spectrum of Ti3SiC2. *Journal of Applied Physics*, **1998**, 84, 5817-5819	2.5	117
382	Effect of temperature, strain rate and grain size on the mechanical response of Ti3SiC2 in tension. *Acta Materialia*, **2002**, 50, 1297-1306	8.4	117
381	Direct Measurement of Surface Termination Groups and Their Connectivity in the 2D MXene V2CTx Using NMR Spectroscopy. *Journal of Physical Chemistry C*, **2015**, 119, 13713-13720	3.8	113
380	Vibrational behavior of the Mn+1AXn phases from first-order Raman scattering (M=Ti,V,Cr, A=Si, X=C,N). *Physical Review B*, **2005**, 71,	3.3	113
379	Diffusion kinetics of the carburization and silicidation of Ti3SiC2. *Journal of Applied Physics*, **1998**, 83, 112-119	2.5	113
378	Mesoporous carbide-derived carbon with porosity tuned for efficient adsorption of cytokines. *Biomaterials*, **2006**, 27, 5755-62	15.6	111
377	Synthesis and mechanical properties of Ti3GeC2 and Ti3(SixGe1−x)C2 (x = 0.5, 0.75) solid solutions. *Journal of Alloys and Compounds*, **2004**, 376, 287-295	5.7	110
376	First-order Raman scattering of the MAX phases: Ti2AlN, Ti2AlC0.5N0.5, Ti2AlC, (Ti0.5V0.5)2AlC, V2AlC, Ti3AlC2, and Ti3GeC2. *Journal of Raman Spectroscopy*, **2012**, 43, 168-172	2.3	109
375	On the determination of spherical nanoindentation stress–strain curves. *Journal of Materials Research*, **2006**, 21, 2628-2637	2.5	107
374	High-Resolution Transmission Electron Microscopy of Ti4AlN3, or Ti3Al2N2 Revisited. *Journal of the American Ceramic Society*, **1999**, 82, 2545-2547	3.8	107
373	Synthesis and Characterization of an Alumina Forming Nanolaminated Boride: MoAlB. *Scientific Reports*, **2016**, 6, 26475	4.9	106
372	Optical properties of Ti3SiC2 and Ti4AlN3. *Applied Physics Letters*, **2008**, 92, 221907	3.4	106
371	Crystal-chemistry of the Ti3AlC2 and Ti4AlN3 layered carbide/nitride phases—characterization by XPS. *Journal of Physics and Chemistry of Solids*, **2001**, 62, 811-817	3.9	106
370	Tensile properties of Ti3SiC2 in the 25–1300°C temperature range. *Acta Materialia*, **2000**, 48, 453-459	8.4	106

369	Mo2TiAlC2: A new ordered layered ternary carbide. *Scripta Materialia*, **2015**, 101, 5-7	5.6	104
368	Kinking nonlinear elastic solids, nanoindentations, and geology. *Physical Review Letters*, **2004**, 92, 255508	7.4	102
367	Structure of Ti4AlN3□ layered Mn+1AXn nitride. *Materials Research Bulletin*, **2000**, 35, 1785-1796	5.1	102
366	Alkali-induced crumpling of TiCT (MXene) to form 3D porous networks for sodium ion storage. *Chemical Communications*, **2018**, 54, 4533-4536	5.8	101
365	Tailoring Structure, Composition, and Energy Storage Properties of MXenes from Selective Etching of In-Plane, Chemically Ordered MAX Phases. *Small*, **2018**, 14, e1703676	11	99
364	Micro and mesoporosity of carbon derived from ternary and binary metal carbides. *Microporous and Mesoporous Materials*, **2008**, 112, 526-532	5.3	97
363	Reaction of Al with Ti3SiC2 in the 800□1000□C temperature range. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 298, 174-178	5.3	97
362	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	3.9	97
361	Transparent, conductive solution processed spincast 2D Ti2CTx (MXene) films. *Materials Research Letters*, **2017**, 5, 391-398	7.4	96
360	Mo□a□: a new ternary nanolaminated carbide. *Chemical Communications*, **2015**, 51, 6560-3	5.8	96
359	X-ray high-pressure study of Ti2AlN and Ti2AlC. *Journal of Physics and Chemistry of Solids*, **2006**, 67, 2091-2094	3.9	96
358	Synthesis and characterization of Hf2PbC, Zr2PbC and M2SnC (M=Ti, Hf, Nb or Zr). *Journal of the European Ceramic Society*, **2000**, 20, 2619-2625	6	96
357	High-pressure x-ray diffraction study of Ta4AlC3. *Applied Physics Letters*, **2006**, 88, 201902	3.4	95
356	Incipient and regular kink bands in fully dense and 10vol.% porous Ti2AlC. *Acta Materialia*, **2006**, 54, 1631-1639	8.4	94
355	Transient Plastic Phase Processing of Titanium□Boron□Carbon Composites. *Journal of the American Ceramic Society*, **1993**, 76, 1445-1451	3.8	94
354	Synthesis of Two-Dimensional Nb1.33C (MXene) with Randomly Distributed Vacancies by Etching of the Quaternary Solid Solution (Nb2/3Sc1/3)2AlC MAX Phase. *ACS Applied Nano Materials*, **2018**, 1, 2455-2460	5.6	93
353	Ten Years of Progress in the Synthesis and Development of MXenes. *Advanced Materials*, **2021**, 33, e2103393	21	91
352	Enhanced and tunable surface plasmons in two-dimensional Ti3C2 stacks: Electronic structure versus boundary effects. *Physical Review B*, **2014**, 89,	3.3	90

351	Fabrication and electrical and thermal properties of Ti2InC, Hf2InC and (Ti,Hf)2InC. *Journal of Alloys and Compounds*, **2002**, 340, 173-179	5.7	89
350	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, 013543	2.5	88
349	Microscale modeling of kinking nonlinear elastic solids. *Physical Review B*, **2005**, 71,	3.3	87
348	A genomic approach to the stability, elastic, and electronic properties of the MAX phases. *Physica Status Solidi (B): Basic Research*, **2014**, 251, 1480-1497	1.3	86
347	Mesoporous MXene powders synthesized by acid induced crumpling and their use as Na-ion battery anodes. *Materials Research Letters*, **2018**, 6, 230-235	7.4	85
346	Synthesis of the new MAX phase Zr 2 AlC. *Journal of the European Ceramic Society*, **2016**, 36, 1847-1853	6	85
345	Two-Dimensional Materials: 25th Anniversary Article: MXenes: A New Family of Two-Dimensional Materials (Adv. Mater. 7/2014). *Advanced Materials*, **2014**, 26, 982-982	24	85
344	New Solid Solution MAX Phases: (Ti0.5, V0.5)3AlC2, (Nb0.5, V0.5)2AlC, (Nb0.5, V0.5)4AlC3 and (Nb0.8, Zr0.2)2AlC. *Materials Research Letters*, **2014**, 2, 233-240	7.4	85
343	Tribological behavior of select MAX phases against Al2O3 at elevated temperatures. *Wear*, **2008**, 265, 560-565	3.5	84
342	Ambient and 550□C tribological behavior of select MAX phases against Ni-based superalloys. *Wear*, **2008**, 264, 270-278	3.5	83
341	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	3.9	83
340	Corrosion behavior of select MAX phases in NaOH, HCl and H2SO4. *Corrosion Science*, **2006**, 48, 4274-4282	2.8	82
339	Tensile creep of coarse-grained Ti3SiC2 in the 1000□1200□C temperature range. *Journal of Alloys and Compounds*, **2003**, 361, 299-312	5.7	82
338	Tailoring of the thermal expansion of Cr2(Alx,Ge1□)C phases. *Journal of the European Ceramic Society*, **2013**, 33, 897-904	6	81
337	Mechanical and microstructural characterization of an alkali-activated slag/limestone fine aggregate concrete. *Construction and Building Materials*, **2009**, 23, 2951-2957	6.7	81
336	Conductive transparent V 2 CT x (MXene) films. *FlatChem*, **2018**, 8, 25-30	5.1	80
335	Effect of Edge Charges on Stability and Aggregation of Ti3C2Tz MXene Colloidal Suspensions. *Journal of Physical Chemistry C*, **2018**, 122, 27745-27753	3.8	80
334	Synthesis of Carbide-Derived Carbon by Chlorination of Ti2AlC. *Chemistry of Materials*, **2005**, 17, 2317-2323	9.6	79

333	Tensile creep of fine grained (3 5 m) Ti3SiC2 in the 1000 1200 C temperature range. *Acta Materialia*, **2001**, 49, 4103-4112	8.4	79
332	Microstructural Evolution during Transient Plastic Phase Processing of Titanium Carbide-Titanium Boride Composites. *Journal of the American Ceramic Society*, **1996**, 79, 1945-1952	3.8	79
331	Preparation and characterization of polymer-Ti3C2Tx (MXene) composite nanofibers produced via electrospinning. *Journal of Applied Polymer Science*, **2017**, 134, 45295	2.9	78
330	Synthesis of the novel Zr 3 AlC 2 MAX phase. *Journal of the European Ceramic Society*, **2016**, 36, 943-947	6	77
329	Dislocations and Stacking Faults in Ti3SiC2. *Journal of the American Ceramic Society*, **2005**, 81, 1677-1681	3.8	77
328	Ta2AlC and Cr2AlC Ag-based composites New solid lubricant materials for use over a wide temperature range against Ni-based superalloys and alumina. *Wear*, **2007**, 262, 1479-1489	3.5	76
327	Electron-phonon coupling in Mn+1AXn-phase carbides. *Physical Review B*, **2006**, 74,	3.3	76
326	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	3.9	76
325	Effects of temperature, strain rate and grain size on the compressive properties of Ti3SiC2. *Acta Materialia*, **2005**, 53, 4163-4171	8.4	75
324	Beyond Gold: Spin-Coated Ti C -Based MXene Photodetectors. *Advanced Materials*, **2019**, 31, e1903271	24	73
323	General trends in the structural, electronic and elastic properties of the M3AlC2 phases (M=transition metal): A first-principle study. *Computational Materials Science*, **2010**, 49, 691-698	3.2	73
322	Characterization of Ti4AlN3. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2000**, 31, 333-337	2.3	73
321	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	5.7	72
320	Double-Layer Capacitance of Carbide Derived Carbons in Sulfuric Acid. *Electrochemical and Solid-State Letters*, **2005**, 8, A357		72
319	Synthesis and compressibility of Ti3(Al,Sn0.2)C2 and Ti3Al(C0.5,N0.5)2. *Journal of Applied Physics*, **2007**, 101, 113523	2.5	69
318	Synthesis and characterization of 0.3 Vf TiC Ti3SiC2 and 0.3 Vf SiC Ti3SiC2 composites. *Journal of Alloys and Compounds*, **2003**, 350, 303-312	5.7	69
317	Spherical Nanoindentations and Kink Bands in Ti3SiC2. *Journal of Materials Research*, **2004**, 19, 1139-1148	2.5	68
316	Thermal properties of Ti4AlN3. *Journal of Applied Physics*, **2000**, 87, 8407-8414	2.5	68

315	Antibacterial properties of electrospun TiCT (MXene)/chitosan nanofibers.. *RSC Advances*, **2018**, 8, 35386-35396	3.7	67
314	Kinking nonlinear elasticity, damping and microyielding of hexagonal close-packed metals. *Acta Materialia*, **2008**, 56, 60-67	8.4	66
313	Controlling the conductivity of Ti3C2 MXenes by inductively coupled oxygen and hydrogen plasma treatment and humidity. *RSC Advances*, **2017**, 7, 13097-13103	3.7	65
312	Processing, microstructural characterization and mechanical properties of a Ti2AlC/nanocrystalline Mg-matrix composite. *Composites Science and Technology*, **2009**, 69, 414-420	8.6	65
311	Compressive creep of fine and coarse-grained T3SiC2 in air in the 1100–1300 °C temperature range. *Acta Materialia*, **2005**, 53, 4963-4973	8.4	65
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309	Elastic properties, thermal stability, and thermodynamic parameters of MoAlB. *Physical Review B*, **2017**, 95,	3.3	62
308	Compression of Zr2InC to 52GPa. *Applied Physics Letters*, **2004**, 85, 1514-1516	3.4	61
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