

Michel Barsoum

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	MXene-based symmetric supercapacitors with high voltage and high energy density. <i>Materials Reports Energy</i> , 2022 , 2, 100078		0
475	Effect of Texturing on Thermal, Electric and Elastic Properties of MoAlB, Fe ₂ AlB ₂ , and Mn ₂ AlB ₂ . <i>Journal of the European Ceramic Society</i> , 2022 , 42, 3183-3183	6	0
474	Effect of vacancies on the electrochemical behavior of Mo-based MXenes in aqueous supercapacitors. <i>Journal of Power Sources</i> , 2022 , 525, 231064	8.9	2
473	Basal dislocations in MAX phases: Core structure and mobility. <i>Materialia</i> , 2022 , 21, 101310	3.2	1
472	High-Entropy Laminate Metal Carbide (MAX Phase) and Its Two-Dimensional Derivative MXene. <i>Chemistry of Materials</i> , 2022 , 34, 2098-2106	9.6	3
471	Isothermal Oxidation of Ti ₃ Al _{0.6} Ga _{0.4} C ₂ MAX Phase Solid Solution in Air at 1000 °C to 1300 °C. <i>Journal of the Electrochemical Society</i> , 2022 , 169, 031510	3.9	
470	Anion Identity and Time Scale Affect the Cation Insertion Energy Storage Mechanism in Ti ₃ C ₂ T _x MXene Multilayers. <i>ACS Energy Letters</i> , 2022 , 7, 1828-1834	20.1	0
469	Sulfur confined MXene hosts enabling the use of carbonate-based electrolytes in alkali metal (Li/Na/K)-sulfur batteries. <i>Materials Today Energy</i> , 2022 , 101000	7	1
468	Effect of grain orientation on the compressive response of highly oriented MAX phase Ti ₃ SiC ₂ . <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 809, 140869	5.3	2
467	On the origin of kinking in layered crystalline solids. <i>Materials Today</i> , 2021 , 43, 45-52	21.8	5
466	MXene polymer nanocomposites: a review. <i>Materials Today Advances</i> , 2021 , 9, 100120	7.4	37
465	Enhancing catalytic epoxide ring-opening selectivity using surface-modified Ti ₃ C ₂ T _x MXenes. <i>2D Materials</i> , 2021 , 8, 035003	5.9	6
464	A critical analysis of the X-ray photoelectron spectra of Ti ₃ C ₂ T _z MXenes. <i>Matter</i> , 2021 , 4, 1224-1251	12.7	30
463	Electrocatalytic oxygen evolution reaction (OER) on mixed nanoporous RuIr borides. <i>Journal of Applied Electrochemistry</i> , 2021 , 51, 1101-1108	2.6	0
462	Formation mechanisms of Cr ₂ AlB ₂ , Cr ₃ AlB ₄ , and Fe ₂ AlB ₂ MAB phases. <i>Materials Research Letters</i> , 2021 , 9, 323-328	7.4	2
461	Tuning functional two-dimensional MXene nanosheets to enable efficient sulfur utilization in lithium-sulfur batteries. <i>Cell Reports Physical Science</i> , 2021 , 2, 100480	6.1	5
460	Enhanced yield synthesis of bulk dense (M ₂ /3Y ₁ /3)ZrAlC (M = Cr, W, Mo) in-plane chemically ordered quaternary atomically laminated i-MAX phases and oxidation of (Cr ₂ /3Y ₁ /3)ZrAlC and (Mo ₂ /3Y ₁ /3)ZrAlC. <i>Journal of Alloys and Compounds</i> , 2021 , 867, 158930	5.7	0

459	MXene/manganese oxides aqueous asymmetric supercapacitors with high mass loadings, high cell voltages and slow self-discharge. <i>Energy Storage Materials</i> , 2021 , 38, 438-446	19.4	11
458	Thermal stability of the nanolayered Fe ₂ AlB ₂ in nitrogen and argon atmospheres. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 733-739	3.8	2
457	On the rapid in situ oxidation of two-dimensional VCT MXene in culture cell media and their cytotoxicity. <i>Materials Science and Engineering C</i> , 2021 , 119, 111431	8.3	13
456	Synthesis, characterization and first principle modelling of the MAB phase solid solutions: (Mn _{1-x} Cr _x) ₂ AlB ₂ and (Mn _{1-x} Cr _x) ₃ AlB ₄ . <i>Materials Research Letters</i> , 2021 , 9, 112-118	7.4	5
455	Tailored synthesis approach of (MoY)AlC i-MAX and its two-dimensional derivative MoCT MXene: enhancing the yield, quality, and performance in supercapacitor applications. <i>Nanoscale</i> , 2021 , 13, 311-319	3.7	9
454	Applications of MAX phases and MXenes as catalysts. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 19589-19612	6.1	10
453	Boosting the volumetric capacitance of MoO _{3-x} free-standing films with Ti ₃ C ₂ MXene. <i>Electrochimica Acta</i> , 2021 , 370, 137665	6.7	12
452	Ten Years of Progress in the Synthesis and Development of MXenes. <i>Advanced Materials</i> , 2021 , 33, e2103393	10.3	91
451	Synthesis, characterization, properties, first principles calculations, and X-ray photoelectron spectroscopy of bulk Mn ₅ SiB ₂ and Fe ₅ SiB ₂ ternary borides. <i>Journal of Alloys and Compounds</i> , 2021 , 888, 161377	5.7	1
450	Synthesis of new M-layer solid-solution 312 MAX phases (Ta _{1-x} Ti _x) ₃ AlC ₂ (x = 0.4, 0.62, 0.75, 0.91 or 0.95), and their corresponding MXenes. <i>RSC Advances</i> , 2021 , 11, 3110-3114	3.7	6
449	Well-Dispersed Nanocomposites Using Covalently Modified, Multilayer, 2D Titanium Carbide (MXene) and In-Situ Click Polymerization. <i>Chemistry of Materials</i> , 2021 , 33, 1648-1656	9.6	14
448	Flexible Free-Standing MoO/TiCT MXene Composite Films with High Gravimetric and Volumetric Capacities. <i>Advanced Science</i> , 2021 , 8, 2003656	13.6	22
447	Ripplacations: A Progress Report. <i>Frontiers in Materials</i> , 2020 , 7,	4	7
446	Elementary processes governing VALC chemical etching in HF.. <i>RSC Advances</i> , 2020 , 10, 25266-25274	3.7	5
445	Characterization of ripplacation mobility in graphite. <i>Materials Research Letters</i> , 2020 , 8, 82-87	7.4	6
444	2D Ti ₃ C ₂ T _z MXene Synthesized by Water-free Etching of Ti ₃ AlC ₂ in Polar Organic Solvents. <i>Chem</i> , 2020 , 6, 616-630	16.2	119
443	Reaction paths and microstructures of nickel and Ti ₂ AlC mixtures hot pressed and annealed in the 1050-1350 °C temperature range. <i>Journal of Alloys and Compounds</i> , 2020 , 828, 154193	5.7	4
442	On tuning the cytotoxicity of Ti ₃ C ₂ (MXene) flakes to cancerous and benign cells by post-delamination surface modifications. <i>2D Materials</i> , 2020 , 7, 025018	5.9	31

441	Dispersion and Stabilization of Alkylated 2D MXene in Nonpolar Solvents and Their Pseudocapacitive Behavior. <i>Cell Reports Physical Science</i> , 2020 , 1, 100042	6.1	19
440	Highly Efficient Ultralow Pd Loading Supported on MAX Phases for Chemoselective Hydrogenation. <i>ACS Catalysis</i> , 2020 , 10, 5899-5908	13.1	13
439	Insights into the elastic properties of RE-i-MAX phases and their potential exfoliation into two-dimensional RE-i-MXenes. <i>Physical Review Materials</i> , 2020 , 4,	3.2	11
438	Elastic properties and hardness values of V ₂ AlC and Cr ₂ AlC single crystals. <i>Physical Review Materials</i> , 2020 , 4,	3.2	3
437	Magnetic properties of (Fe _{1-x} Mn _x) ₂ AlB ₂ and the impact of substitution on the magnetocaloric effect. <i>Physical Review Materials</i> , 2020 , 4,	3.2	1
436	On a Two-Dimensional MoS ₂ /Mo ₂ CT _x Hydrogen Evolution Catalyst Obtained by the Topotactic Sulfurization of Mo ₂ CT _x MXene. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 124507	3.9	8
435	Terahertz Polarizers Based on 2D Ti ₃ C ₂ T _z MXene: Spin Cast from Aqueous Suspensions. <i>Advanced Photonics Research</i> , 2020 , 1, 2070005	1.9	1
434	Two-Dimensional MXenes Mo ₂ Ti ₂ C ₃ T _z and Mo ₂ TiC ₂ T _z : Microscopic Conductivity and Dynamics of Photoexcited Carriers. <i>ACS Applied Energy Materials</i> , 2020 , 3, 1530-1539	6.1	14
433	Mechanical Exfoliation of Select MAX Phases and Mo-Ce-Al-C Single Crystals to Produce MAXenes. <i>Small</i> , 2020 , 16, e1905784	11	15
432	MXene Tunable Lamellae Architectures for Supercapacitor Electrodes. <i>ACS Applied Energy Materials</i> , 2020 , 3, 411-422	6.1	21
431	Terahertz Polarizers Based on 2D Ti ₃ C ₂ T _z MXene: Spin Cast from Aqueous Suspensions. <i>Advanced Photonics Research</i> , 2020 , 1, 2000084	1.9	4
430	Unique cellular network formation guided by heterostructures based on reduced graphene oxide - TiCT MXene hydrogels. <i>Acta Biomaterialia</i> , 2020 , 115, 104-115	10.8	15
429	Heat Capacity and Anisotropic Thermal Conductivity in Cr ₂ AlC Single Crystals at High Temperature. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 24017-24028	3.8	1
428	One MAX phase, different MXenes: A guideline to understand the crucial role of etching conditions on Ti ₃ C ₂ T _x surface chemistry. <i>Applied Surface Science</i> , 2020 , 530, 147209	6.7	56
427	TiCT nanosheet wrapped core-shell MnO nanorods @ hollow porous carbon as a multifunctional polysulfide mediator for improved Li-S batteries. <i>Nanoscale</i> , 2020 , 12, 24196-24205	7.7	9
426	Magnetic and magnetocaloric properties of Fe ₂ AlB ₂ synthesized by single-step reactive hot pressing. <i>Scripta Materialia</i> , 2020 , 188, 244-248	5.6	8
425	X-ray photoelectron spectroscopy of the MAB phases, MoAlB, M ₂ AlB ₂ (M = Cr, Fe), Cr ₃ AlB ₄ and their binary monoborides. <i>Journal of the European Ceramic Society</i> , 2020 , 40, 305-314	6	21
424	A progress report on the MAB phases: atomically laminated, ternary transition metal borides. <i>International Materials Reviews</i> , 2020 , 65, 226-255	16.1	48

423	Possible monoclinic distortion of Mo ₂ GaC under high pressure. <i>Journal of Applied Physics</i> , 2020 , 127, 145103	2.5	1
422	Water Transport and Thermomechanical Properties of TiCT MXene Epoxy Nanocomposites. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 39143-39149	9.5	20
421	Magnesium-Ion Storage Capability of MXenes. <i>ACS Applied Energy Materials</i> , 2019 , 2, 1572-1578	6.1	53
420	Electronic and optical characterization of 2D TiC and NbC (MXene) thin films. <i>Journal of Physics Condensed Matter</i> , 2019 , 31, 165301	1.8	46
419	MXenes: An Introduction of Their Synthesis, Select Properties, and Applications. <i>Trends in Chemistry</i> , 2019 , 1, 656-669	14.8	164
418	Nylon-6/TiCT MXene Nanocomposites Synthesized by in Situ Ring Opening Polymerization of ϵ -Caprolactam and Their Water Transport Properties. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 20425-20436	9.5	30
417	Atomically Layered and Ordered Rare-Earth i-MAX Phases: A New Class of Magnetic Quaternary Compounds. <i>Chemistry of Materials</i> , 2019 , 31, 2476-2485	9.6	53
416	Overview of the synthesis of MXenes and other ultrathin 2D transition metal carbides and nitrides. <i>Current Opinion in Solid State and Materials Science</i> , 2019 , 23, 149-163	12	178
415	Tuning Thermal Transport Through Atomically Thin Ti ₃ C ₂ T _z MXene by Current Annealing in Vacuum. <i>Advanced Functional Materials</i> , 2019 , 29, 1805693	15.6	17
414	Synthesis, properties and thermal decomposition of the Ta ₄ AlC ₃ MAX phase. <i>Journal of the European Ceramic Society</i> , 2019 , 39, 2973-2981	6	19
413	On the Chemical Diversity of the MAX Phases. <i>Trends in Chemistry</i> , 2019 , 1, 210-223	14.8	227
412	Stoichiometry and surface structure dependence of hydrogen evolution reaction activity and stability of Mo _x C MXenes. <i>Journal of Catalysis</i> , 2019 , 371, 325-332	7.3	33
411	Ripprolocations provide a new mechanism for the deformation of phyllosilicates in the lithosphere. <i>Nature Communications</i> , 2019 , 10, 686	17.4	24
410	On the interactions of Ti ₂ AlC, Ti ₃ AlC ₂ , Ti ₃ SiC ₂ and Cr ₂ AlC with palladium at 900 °C. <i>Journal of Alloys and Compounds</i> , 2019 , 771, 1103-1110	5.7	7
409	Surface Erosion of Plasma-Facing Materials Using an Electrothermal Plasma Source and Ion Beam Micro-Trenches. <i>Fusion Science and Technology</i> , 2019 , 75, 621-635	1.1	5
408	Modelling in-plane magneto-transport in Cr ₂ AlC. <i>Ceramics International</i> , 2019 , 45, 22956-22960	5.1	3
407	XPS of cold pressed multilayered and freestanding delaminated 2D thin films of Mo ₂ TiC ₂ T _z and Mo ₂ Ti ₂ C ₃ T _z (MXenes). <i>Applied Surface Science</i> , 2019 , 494, 1138-1147	6.7	28
406	Edge Capping of 2D-MXene Sheets with Polyanionic Salts To Mitigate Oxidation in Aqueous Colloidal Suspensions. <i>Angewandte Chemie</i> , 2019 , 131, 12785-12790	3.6	18

405	Edge Capping of 2D-MXene Sheets with Polyanionic Salts To Mitigate Oxidation in Aqueous Colloidal Suspensions. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 12655-12660	16.4	119
404	Effect of Cationic Exchange on the Hydration and Swelling Behavior of Ti ₃ C ₂ T _z MXenes. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 20044-20050	3.8	29
403	Mxene Photodetectors: Beyond Gold: Spin-Coated Ti ₃ C ₂ -Based MXene Photodetectors (Adv. Mater. 43/2019). <i>Advanced Materials</i> , 2019 , 31, 1970307	24	2
402	Beyond Gold: Spin-Coated Ti C -Based MXene Photodetectors. <i>Advanced Materials</i> , 2019 , 31, e1903271	24	73
401	Ripplocations: A universal deformation mechanism in layered solids. <i>Physical Review Materials</i> , 2019 , 3,	3.2	18
400	First-order Raman scattering of rare-earth containing i-MAX single crystals (Mo ₂ /3RE ₁ /3)2AlC (RE=Nd,Gd,Dy,Ho,Er). <i>Physical Review Materials</i> , 2019 , 3,	3.2	8
399	Mapping Hot Spots at Heterogeneities of Few-Layer TiC MXene Sheets. <i>ACS Nano</i> , 2019 , 13, 3301-3309	16.7	16
398	2D MXene-containing polymer electrolytes for all-solid-state lithium metal batteries. <i>Nanoscale Advances</i> , 2019 , 1, 395-402	5.1	61
397	A Tungsten-Based Nanolaminated Ternary Carbide: (W,Ti)C. <i>Inorganic Chemistry</i> , 2019 , 58, 1100-1106	5.1	5
396	Ultra-high temperature ablation behavior of MoAlB ceramics under an oxyacetylene flame. <i>Journal of the European Ceramic Society</i> , 2019 , 39, 2010-2017	6	24
395	Bonding and oxidation protection of Ti ₂ AlC and Cr ₂ AlC for a Ni-based superalloy. <i>Journal of the European Ceramic Society</i> , 2019 , 39, 878-882	6	21
394	Friction and wear properties of MoAlB against Al ₂ O ₃ and 100Cr6 steel counterparts. <i>Journal of the European Ceramic Society</i> , 2019 , 39, 868-877	6	29
393	Magnetic ordering in the nano-laminar ternary Mn ₂ AlB ₂ using neutron and X-ray diffraction. <i>Journal of Magnetism and Magnetic Materials</i> , 2019 , 471, 468-474	2.8	13
392	Compressive deformation of MoAlB up to 1100 °C. <i>Journal of Alloys and Compounds</i> , 2019 , 774, 1216-1222	5.7	19
391	Mesoporous MXene powders synthesized by acid induced crumpling and their use as Na-ion battery anodes. <i>Materials Research Letters</i> , 2018 , 6, 230-235	7.4	85
390	Tailoring Structure, Composition, and Energy Storage Properties of MXenes from Selective Etching of In-Plane, Chemically Ordered MAX Phases. <i>Small</i> , 2018 , 14, e1703676	11	99
389	W-Based Atomic Laminates and Their 2D Derivative W C MXene with Vacancy Ordering. <i>Advanced Materials</i> , 2018 , 30, e1706409	24	145
388	Alkali-induced crumpling of TiCT (MXene) to form 3D porous networks for sodium ion storage. <i>Chemical Communications</i> , 2018 , 54, 4533-4536	5.8	101

387	Crystallographic evolution of MAX phases in proton irradiating environments. <i>Journal of Nuclear Materials</i> , 2018 , 502, 220-227	3.3	23
386	Pressure-induced shear and interlayer expansion in TiC MXene in the presence of water. <i>Science Advances</i> , 2018 , 4, eaao6850	14.3	45
385	Conductive transparent V ₂ C ₂ T _x (MXene) films. <i>FlatChem</i> , 2018 , 8, 25-30	5.1	80
384	The Ti ₃ AlC ₂ MAX Phase as an Efficient Catalyst for Oxidative Dehydrogenation of n-Butane. <i>Angewandte Chemie</i> , 2018 , 130, 1501-1506	3.6	14
383	The Ti ₃ AlC ₂ MAX Phase as an Efficient Catalyst for Oxidative Dehydrogenation of n-Butane. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 1485-1490	16.4	38
382	On the organization and thermal behavior of functional groups on Ti ₃ C ₂ MXene surfaces in vacuum. <i>2D Materials</i> , 2018 , 5, 015002	5.9	146
381	Synthesis and characterization of the atomic laminate Mn ₂ AlB ₂ . <i>Journal of the European Ceramic Society</i> , 2018 , 38, 5333-5340	6	29
380	Magnetic properties of Cr ₂ AlB ₂ , Cr ₃ AlB ₄ , and CrB powders. <i>Journal of Alloys and Compounds</i> , 2018 , 767, 474-482	5.7	25
379	Nucleation of ripplocations through atomistic modeling of surface nanoindentation in graphite. <i>Physical Review Materials</i> , 2018 , 2,	3.2	9
378	Rare-earth (RE) nanolaminates Mo ₄ RE ₄ Al ₇ C ₃ featuring ferromagnetism and mixed-valence states. <i>Physical Review Materials</i> , 2018 , 2,	3.2	4
377	Infiltration behavior of Cu and Ti fillers into Ti ₂ AlC/Ti ₃ AlC ₂ composites during tungsten inert gas (TIG) brazing. <i>Ceramics International</i> , 2018 , 44, 3282-3290	5.1	3
376	Low temperature solution synthesis of reduced two dimensional TiC MXenes with paramagnetic behaviour. <i>Nanoscale</i> , 2018 , 10, 22429-22438	7.7	41
375	Antibacterial properties of electrospun TiCT (MXene)/chitosan nanofibers.. <i>RSC Advances</i> , 2018 , 8, 35386-35396	5.7	47
374	Effect of Edge Charges on Stability and Aggregation of Ti ₃ C ₂ T _z MXene Colloidal Suspensions. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 27745-27753	3.8	80
373	Anisotropic thermal expansions of select layered ternary transition metal borides: MoAlB, Cr ₂ AlB ₂ , Mn ₂ AlB ₂ , and Fe ₂ AlB ₂ . <i>Journal of Applied Physics</i> , 2018 , 124, 205108	2.5	20
372	Enhanced Thermal Boundary Conductance in Few-Layer Ti ₃ C MXene with Encapsulation. <i>Advanced Materials</i> , 2018 , 30, e1801629	24	35
371	Anion Adsorption, Ti ₃ C ₂ T _z MXene Multilayers, and Their Effect on Claylike Swelling. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 23172-23179	3.8	29
370	Variable range hopping and thermally activated transport in molybdenum-based MXenes. <i>Physical Review B</i> , 2018 , 98,	3.3	41

369	Corrosion performance of Ti ₃ SiC ₂ , Ti ₃ AlC ₂ , Ti ₂ AlC and Cr ₂ AlC MAX phases in simulated primary water conditions. <i>Corrosion Science</i> , 2018 , 139, 444-453	6.8	25
368	Synthesis of Two-Dimensional Nb _{1.33} C (MXene) with Randomly Distributed Vacancies by Etching of the Quaternary Solid Solution (Nb ₂ /3Sc _{1/3}) ₂ AlC MAX Phase. <i>ACS Applied Nano Materials</i> , 2018 , 1, 2455-2460	5.6	93
367	Two-Dimensional Titanium Carbide MXene As a Cathode Material for Hybrid Magnesium/Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 4296-4300	9.5	149
366	Alkylammonium Cation Intercalation into Ti ₃ C ₂ (MXene): Effects on Properties and Ion-Exchange Capacity Estimation. <i>Chemistry of Materials</i> , 2017 , 29, 1099-1106	9.6	126
365	Microstructure and microindentation of Ti ₃ SiC ₂ /Titanium filler brazed joints by tungsten inert gas (TIG) process. <i>Ceramics International</i> , 2017 , 43, 7290-7294	5.1	7
364	Controlling the conductivity of Ti ₃ C ₂ MXenes by inductively coupled oxygen and hydrogen plasma treatment and humidity. <i>RSC Advances</i> , 2017 , 7, 13097-13103	3.7	65
363	Rendering Ti ₃ C ₂ T _x (MXene) monolayers visible. <i>Materials Research Letters</i> , 2017 , 5, 322-328	7.4	26
362	First-order Raman scattering in three-layered Mo-based ternaries: MoAlB, Mo ₂ Ga ₂ C and Mo ₂ GaC. <i>Journal of Raman Spectroscopy</i> , 2017 , 48, 631-638	2.3	25
361	Deformation of layered solids: Rippllocations not basal dislocations. <i>Scripta Materialia</i> , 2017 , 139, 166-173	3.6	28
360	Two-dimensional MoC MXene with divacancy ordering prepared from parent 3D laminate with in-plane chemical ordering. <i>Nature Communications</i> , 2017 , 8, 14949	17.4	334
359	Evidence for ferromagnetic ordering in the MAX phase (Cr _{0.96} Mn _{0.04}) ₂ GeC. <i>Materials Research Letters</i> , 2017 , 5, 465-471	7.4	9
358	Magnetotransport in the MAX phases and their 2D derivatives: MXenes. <i>Materials Research Letters</i> , 2017 , 5, 365-378	7.4	37
357	Preparation and characterization of polymer-Ti ₃ C ₂ T _x (MXene) composite nanofibers produced via electrospinning. <i>Journal of Applied Polymer Science</i> , 2017 , 134, 45295	2.9	78
356	Spherical nanoindentation, modeling and transmission electron microscopy evidence for rippllocations in Ti ₃ SiC ₂ . <i>Acta Materialia</i> , 2017 , 131, 141-155	8.4	34
355	Transparent, conductive solution processed spincoated 2D Ti ₂ CT _x (MXene) films. <i>Materials Research Letters</i> , 2017 , 5, 391-398	7.4	96
354	Effects of neutron irradiation of Ti ₃ SiC ₂ and Ti ₃ AlC ₂ in the 121–1085 °C temperature range. <i>Journal of Nuclear Materials</i> , 2017 , 484, 120-134	3.3	47
353	Synthesis and characterization of the mechanical properties of Ti ₃ SiC ₂ /Mg and Cr ₂ AlC/Mg alloy composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 705, 182-188	5.3	11
352	Electrophoretic Deposition of Two-Dimensional Titanium Carbide (MXene) Thick Films. <i>Journal of the Electrochemical Society</i> , 2017 , 164, D573-D580	3.9	43

351	The {110} reflection in X-ray diffraction of MXene films: Misinterpretation and measurement via non-standard orientation. <i>Journal of the American Ceramic Society</i> , 2017 , 100, 5395-5399	3.8	34
350	Isothermal and Cyclic Oxidation of MoAlB in Air from 1100°C to 1400°C. <i>Journal of the Electrochemical Society</i> , 2017 , 164, C930-C938	3.9	37
349	Ultra-high-rate pseudocapacitive energy storage in two-dimensional transition metal carbides. <i>Nature Energy</i> , 2017 , 2,	62.3	1071
348	Elastic properties, thermal stability, and thermodynamic parameters of MoAlB. <i>Physical Review B</i> , 2017 , 95,	3.3	62
347	Atomic structure and lattice defects in nanolaminated ternary transition metal borides. <i>Materials Research Letters</i> , 2017 , 5, 235-241	7.4	58
346	Dynamic fracture behavior of a MAX phase Ti ₃ SiC ₂ . <i>Engineering Fracture Mechanics</i> , 2017 , 169, 54-66	4.2	12
345	Structure and thermal expansion of (Cr _x V _{1-x}) _{n+1} AlC _n phases measured by X-ray diffraction. <i>Journal of the European Ceramic Society</i> , 2017 , 37, 15-21	6	18
344	2D titanium carbide and transition metal oxides hybrid electrodes for Li-ion storage. <i>Nano Energy</i> , 2016 , 30, 603-613	17.1	229
343	Synthesis and Characterization of an Alumina Forming Nanolaminated Boride: MoAlB. <i>Scientific Reports</i> , 2016 , 6, 26475	4.9	106
342	Evidence for Bulk Ripplacations in Layered Solids. <i>Scientific Reports</i> , 2016 , 6, 33451	4.9	55
341	Novel MAX resembling Phase Mo ₂ Ga ₂ C 2016 , 1010-1011		
340	Layered Orthorhombic Nb ₂ O ₅ @Nb ₄ C ₃ T _x and TiO ₂ @Ti ₃ C ₂ T _x Hierarchical Composites for High Performance Li-ion Batteries. <i>Advanced Functional Materials</i> , 2016 , 26, 4143-4151	15.6	244
339	Two-Dimensional Nb-Based M ₄ C ₃ Solid Solutions (MXenes). <i>Journal of the American Ceramic Society</i> , 2016 , 99, 660-666	3.8	153
338	On the interactions of Ti ₂ AlC, Ti ₃ AlC ₂ , Ti ₃ SiC ₂ and Cr ₂ AlC with pure sodium at 550 °C and 750 °C. <i>Corrosion Science</i> , 2016 , 111, 568-573	6.8	11
337	Loading Actinides in Multilayered Structures for Nuclear Waste Treatment: The First Case Study of Uranium Capture with Vanadium Carbide MXene. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 16396-403	9.5	138
336	Anodized Ti ₃ SiC ₂ As an Anode Material for Li-ion Microbatteries. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 16670-6	9.5	28
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