Yanchun Zhou

List of Publications by Citations

450 papers	16,198 citations	64 h-index	100 g-index
458 ext. papers	18,587 ext. citations	4.8 avg, IF	6.99 L-index

#	Paper	IF	Citations
450	Layered Machinable and Electrically Conductive Ti2AlC and Ti3AlC2 Ceramics: a Review. *Journal of Materials Science and Technology*, **2010**, 26, 385-416	9.1	372
449	Electrochemical Deposition of Copper(I) Oxide Films. *Chemistry of Materials*, **1996**, 8, 2499-2504	9.6	350
448	Recent Progress in Theoretical Prediction, Preparation, and Characterization of Layered Ternary Transition-Metal Carbides. *Annual Review of Materials Research*, **2009**, 39, 415-443	12.8	302
447	Oxidation behavior of Ti3AlC2 at 1000–1400 °C in air. *Corrosion Science*, **2003**, 45, 891-907	6.8	275
446	Dependence of elastic stiffness on electronic band structure of nanolaminate M2AlC (M=Ti,V,Nb, and Cr) ceramics. *Physical Review B*, **2004**, 69,	3.3	248
445	High-temperature oxidation and hot corrosion of Cr2AlC. *Acta Materialia*, **2007**, 55, 6182-6191	8.4	234
444	Investigation of the relationship between elastic modulus and hardness based on depth-sensing indentation measurements. *Acta Materialia*, **2004**, 52, 5397-5404	8.4	230
443	High-Temperature Oxidation Behavior of Ti2AlC in Air. *Oxidation of Metals*, **2003**, 59, 303-320	1.6	224
442	Hydrothermal synthesis and sintering of ultrafine CeO2 powders. *Journal of Materials Research*, **1993**, 8, 1680-1686	2.5	207
441	Solid–liquid reaction synthesis of layered machinable Ti3AlC2 ceramic. *Journal of Materials Chemistry*, **2002**, 12, 455-460		200
440	Electrochemical Synthesis and Sintering of Nanocrystalline Cerium(IV) Oxide Powders. *Journal of the American Ceramic Society*, **1995**, 78, 981-985	3.8	155
439	Microstructural characterization of layered ternary Ti2AlC. *Acta Materialia*, **2006**, 54, 1009-1015	8.4	147
438	Electronic and structural properties of the layered ternary carbide Ti3AlC2. *Journal of Materials Chemistry*, **2001**, 11, 2335-2339		147
437	In-situ hot pressing/solid-liquid reaction synthesis of dense titanium silicon carbide bulk ceramics. *Materials Research Innovations*, **1998**, 2, 142-146	1.9	141
436	Electronic structure and bonding properties of layered machinable Ti2AlC and Ti2AlN ceramics. *Physical Review B*, **2000**, 61, 12570-12573	3.3	138
435	Oxidation behaviour of Ti3SiC2-based ceramic at 900–1300 °C in air. *Corrosion Science*, **2001**, 43, 1095-1109	6.8	135
434	Strengthening of Ti3AlC2 by incorporation of Si to form Ti3Al1−xSixC2 solid solutions. *Acta Materialia*, **2006**, 54, 1317-1322	8.4	130

433	Theoretical elastic stiffness, structural stability and thermal conductivity of La2T2O7 (T=Ge, Ti, Sn, Zr, Hf) pyrochlore. *Acta Materialia*, **2010**, 58, 4369-4377	8.4	129
432	High temperature oxidation behavior of Ti3SiC2-based material in air. *Acta Materialia*, **2001**, 49, 4347-4353	8.4	128
431	Advances on strategies for searching for next generation thermal barrier coating materials. *Journal of Materials Science and Technology*, **2019**, 35, 833-851	9.1	120
430	A first-principles investigation of the phase stability of Ti2AlC with Al vacancies. *Scripta Materialia*, **2008**, 58, 227-230	5.6	118
429	Nb4AlC3: A new compound belonging to the MAX phases. *Scripta Materialia*, **2007**, 57, 893-896	5.6	118
428	Mechanism for Hydrothermal Synthesis of LiFePO4 Platelets as Cathode Material for Lithium-Ion Batteries. *Journal of Physical Chemistry C*, **2010**, 114, 16806-16812	3.8	115
427	Solid-Liquid Reaction Synthesis and Simultaneous Densification of Polycrystalline Ti2AlC. *International Journal of Materials Research*, **2002**, 93, 66-71		108
426	Effect of redox reaction on the sintering behavior of cerium oxide. *Acta Materialia*, **1997**, 45, 3635-3639	8.4	107
425	In-situ hot pressing/solid-liquid reaction synthesis of bulk Cr2AlC. *International Journal of Materials Research*, **2005**, 96, 291-296		106
424	Ab initiogeometry optimization and ground state properties of layered ternary carbides Ti3MC2(M = Al, Si and Ge). *Journal of Physics Condensed Matter*, **2001**, 13, 10001-10010	1.8	106
423	Thermal properties of single-phase Y2SiO5. *Journal of the European Ceramic Society*, **2009**, 29, 551-557	6	105
422	Theoretical elastic stiffness, structure stability and thermal conductivity of La2Zr2O7 pyrochlore. *Acta Materialia*, **2007**, 55, 2949-2957	8.4	104
421	Polymorphism of Ti3SiC2 ceramic: First-principles investigations. *Physical Review B*, **2004**, 69,	3.3	104
420	Synthesis and microstructure of layered-ternary Ti2AlN ceramic. *Scripta Materialia*, **2007**, 56, 1115-1118	5.6	103
419	Strengthening of Ti2AlC by substituting Ti with V. *Scripta Materialia*, **2005**, 53, 1369-1372	5.6	101
418	(La0.2Ce0.2Nd0.2Sm0.2Eu0.2)2Zr2O7: A novel high-entropy ceramic with low thermal conductivity and sluggish grain growth rate. *Journal of Materials Science and Technology*, **2019**, 35, 2647-2651	9.1	99
417	Microstructures and Theoretical Bulk Modulus of Layered Ternary Tantalum Aluminum Carbides. *Journal of the American Ceramic Society*, **2006**, 89, 3765-3769	3.8	95
416	High-entropy ceramics: Present status, challenges, and a look forward. *Journal of Advanced Ceramics*, **2021**, 10, 385-441	10.7	95

415	Phase stability, electronic structure and mechanical properties of ternary-layered carbide Nb4AlC3: An ab initio study. *Acta Materialia*, **2008**, 56, 1511-1518	8.4	93
414	Thermal Properties and Thermal Shock Resistance of □Y2Si2O7. *Journal of the American Ceramic Society*, **2008**, 91, 2623-2629	3.8	93
413	Improving the oxidation resistance of Ti3SiC2 by forming a Ti3Si0.9Al0.1C2 solid solution. *Acta Materialia*, **2004**, 52, 3631-3637	8.4	93
412	In Situ Reaction Synthesis, Electrical and Thermal, and Mechanical Properties of Nb4AlC3. *Journal of the American Ceramic Society*, **2008**, 91, 2258-2263	3.8	92
411	Microstructure and mechanism of damage tolerance for Ti3SiC2 bulk ceramics. *Materials Research Innovations*, **1999**, 2, 360-363	1.9	92
410	□Y2Si2O7, a Machinable Silicate Ceramic: Mechanical Properties and Machinability. *Journal of the American Ceramic Society*, **2007**, 90, 2535-2541	3.8	87
409	Structure stability of Ti3AlC2 in Cu and microstructure evolution of Cu□Ti3AlC2 composites. *Acta Materialia*, **2007**, 55, 4381-4390	8.4	86
408	Stability and Selective Oxidation of Aluminum in Nano-Laminate Ti3AlC2 upon Heating in Argon. *Chemistry of Materials*, **2003**, 15, 3716-3720	9.6	86
407	Mechanical properties and atomistic deformation mechanism of □Y2Si2O7 from first-principles investigations. *Acta Materialia*, **2007**, 55, 6019-6026	8.4	83
406	Ti3SiC2□ self-lubricating ceramic. *Materials Letters*, **2002**, 55, 285-289	3.3	83
405	Electrochemical Deposition and Microstructure of Copper (I) Oxide Films. *Scripta Materialia*, **1998**, 38, 1731-1738	5.6	82
404	New MAX-Phase Compounds in the V□Cr2AlC□ System. *Journal of the American Ceramic Society*, **2008**, 91, 1357-1360	3.8	82
403	Ab initio calculation of titanium silicon carbide. *Physical Review B*, **1999**, 60, 1441-1443	3.3	82
402	Theoretical Prediction and Experimental Investigation on the Thermal and Mechanical Properties of Bulk □Yb2Si2O7. *Journal of the American Ceramic Society*, **2013**, 96, 3891-3900	3.8	79
401	Electronic structure and bonding properties in layered ternary carbide Ti3SiC2. *Journal of Physics Condensed Matter*, **2000**, 12, L457-L462	1.8	79
400	High porosity and low thermal conductivity high entropy (Zr0.2Hf0.2Ti0.2Nb0.2Ta0.2)C. *Journal of Materials Science and Technology*, **2019**, 35, 1700-1705	9.1	78
399	Growth of cerium(IV) oxide films by the electrochemical generation of base method. *Journal of Alloys and Compounds*, **1996**, 237, 1-5	5.7	77
398	Potential oscillations during the electrochemical self-assembly of copper/cuprous oxide layered nanostructures. *Journal of Materials Research*, **1998**, 13, 909-916	2.5	75

397	Synthesis and structure–property relationships of a new family of layered carbides in Zr-Al(Si)-C and Hf-Al(Si)-C systems. *Journal of the European Ceramic Society*, **2013**, 33, 2831-2865	6	74
396	Deformation modes and ideal strengths of ternary layered Ti2AlC and Ti2AlN from first-principles calculations. *Physical Review B*, **2006**, 73,	3.3	72
395	Thermal shock behavior of Ti3AlC2 from between 200°C and 1300°C. *Journal of the European Ceramic Society*, **2005**, 25, 3367-3374	6	72
394	First-principles elastic stiffness of LaPO4 monazite. *Applied Physics Letters*, **2005**, 87, 051902	3.4	72
393	General Trends in Electronic Structure, Stability, Chemical Bonding and Mechanical Properties of Ultrahigh Temperature Ceramics TMB2 (TM = transition metal). *Journal of Materials Science and Technology*, **2015**, 31, 285-294	9.1	71
392	Physical and Mechanical Properties of Bulk Ta4AlC3 Ceramic Prepared by an In Situ Reaction Synthesis/Hot-Pressing Method. *Journal of the American Ceramic Society*, **2007**, 90, 2542-2548	3.8	69
391	Strengthening of Ti3AlC2 by incorporation of Al2O3. *Scripta Materialia*, **2004**, 50, 897-901	5.6	69
390	Tribological behavior of Ti2SnC particulate reinforced copper matrix composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 422, 266-271	5.3	67
389	Galvanostatic electrodeposition and microstructure of copper (I) oxide film. *Materials Research Innovations*, **1998**, 2, 22-27	1.9	66
388	Si-induced twinning of TiC and formation of Ti3SiC2 platelets. *Acta Materialia*, **2002**, 50, 4127-4135	8.4	66
387	Raman active phonon modes and heat capacities of Ti2AlC and Cr2AlC ceramics: first-principles and experimental investigations. *Applied Physics Letters*, **2005**, 86, 101902	3.4	66
386	Recent progress on synthesis, multi-scale structure, and properties of YSiO oxides. *International Materials Reviews*, **2014**, 59, 357-383	16.1	64
385	First-principles prediction of low shear-strain resistance of Al3BC3: A metal borocarbide containing short linear BC2 units. *Applied Physics Letters*, **2006**, 89, 021917	3.4	64
384	In Situ Reaction Synthesis and Mechanical Properties of V2AlC. *Journal of the American Ceramic Society*, **2008**, 91, 4029-4035	3.8	63
383	Ab initioelastic stiffness of nano-laminate (MxM2x)AlC (M and M = Ti, V and Cr) solid solution. *Journal of Physics Condensed Matter*, **2004**, 16, 2819-2827	1.8	63
382	First demonstration of possible two-dimensional MBene CrB derived from MAB phase Cr2AlB2. *Journal of Materials Science and Technology*, **2018**, 34, 2022-2026	9.1	62
381	Synthesis and Characterization of Bulk Zr2Al3C4 Ceramic. *Journal of the American Ceramic Society*, **2007**, 90, 3687-3689	3.8	62
380	Structural characterization of a new layered-ternary Ta4AlC3 ceramic. *Journal of Materials Research*, **2006**, 21, 2587-2592	2.5	62

379	First-principles prediction of the mechanical properties and electronic structure of ternary aluminum carbide Zr3Al3C5. *Physical Review B*, **2006**, 73,	3.3	62
378	Atomic-scale microstructures of Zr2Al3C4 and Zr3Al3C5 ceramics. *Acta Materialia*, **2006**, 54, 3843-3851	8.4	62
377	Deformation of polycrystalline Ti2AlC under compression. *Materials Research Innovations*, **2001**, 5, 87-93	1.9	62
376	Oxidation behavior of Ti3AlC2 powders in flowing air. *Journal of Materials Chemistry*, **2002**, 12, 2781-2785		62
375	Low-temperature instability of Ti2SnC: A combined transmission electron microscopy, differential scanning calorimetry, and x-ray diffraction investigations. *Journal of Materials Research*, **2009**, 24, 39-49	2.5	61
374	A polysilazane coating protecting polyimide from atomic oxygen and vacuum ultraviolet radiation erosion. *Surface and Coatings Technology*, **2009**, 203, 3338-3343	4.4	61
373	In situ reaction synthesis and characterization of Ti3Si(Al)C2/SiC composites. *Ceramics International*, **2006**, 32, 883-890	5.1	59
372	**2014**,		58
371	(Ti0.5Nb0.5)5AlC4: A New-Layered Compound Belonging to MAX Phases. *Journal of the American Ceramic Society*, **2010**, 93, 3068-3071	3.8	58
370	Influence of water vapor on the oxidation behavior of Ti3AlC2 and Ti2AlC. *Scripta Materialia*, **2008**, 58, 29-32	5.6	58
369	Crystal Structure of V4AlC3: A New Layered Ternary Carbide. *Journal of the American Ceramic Society*, **2008**, 91, 636-639	3.8	58
368	Polydimethylsiloxane/silica hybrid coatings protecting Kapton from atomic oxygen attack. *Materials Chemistry and Physics*, **2008**, 112, 1093-1098	4.4	57
367	Synthesis, Physical, and Mechanical Properties of Bulk Zr3Al3C5 Ceramic. *Journal of the American Ceramic Society*, **2007**, 90, 1164-1170	3.8	56
366	Mechanical properties and damage tolerance of Y2SiO5. *Journal of the European Ceramic Society*, **2008**, 28, 2895-2901	6	55
365	Abnormal thermal shock behavior of Ti3SiC2 and Ti3AlC2. *Journal of Materials Research*, **2006**, 21, 2401-2407	2.5	55
364	Effect of solid solution additives on the sintering of ultra-fine CeO2 powders. *Journal of the European Ceramic Society*, **1995**, 15, 939-950	6	55
363	Microstructure, mechanical, and electrical properties of Cu□Ti3AlC2 and in situ Cu□TiCx composites. *Journal of Materials Research*, **2008**, 23, 924-932	2.5	54
362	Intermediate-temperature oxidation behavior of Ti2AlC in air. *Journal of Materials Research*, **2002**, 17, 2974-2981	2.5	54

361	Mechanical and Thermal Properties of Yb2SiO5: A Promising Material for T/EBCs Applications. *Journal of the American Ceramic Society*, **2016**, 99, 1404-1411	3.8	54
360	Theoretical Prediction of Elastic Stiffness and Minimum Lattice Thermal Conductivity of Y3Al5O12, YAlO3 and Y4Al2O9. *Journal of the American Ceramic Society*, **2012**, 95, 1429-1434	3.8	53
359	Atomistic deformation modes and intrinsic brittleness of Al4SiC4: A first-principles investigation. *Physical Review B*, **2006**, 74,	3.3	53
358	Microstructure and properties of bulk Ta2AlC ceramic synthesized by an in situ reaction/hot pressing method. *Journal of the European Ceramic Society*, **2008**, 28, 1679-1685	6	52
357	Atomic-scale microstructure and elastic properties of quaternary Zr$_{n+1}$AlSiC$_n$ ceramics. *Acta Materialia*, **2008**, 56, 2022-2031	8.4	52
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355	Low-temperature synthesis and sintering of Y2Si2O7. *Journal of Materials Research*, **2006**, 21, 1443-1450	2.5	51
354	Intermediate phases in synthesis of Ti3SiC2 and Ti3Si(Al)C2 solid solutions from elemental powders. *Journal of the European Ceramic Society*, **2006**, 26, 2373-2380	6	51
353	Micro-scale plastic deformation of polycrystalline Ti3SiC2 under room-temperature compression. *Journal of the European Ceramic Society*, **2001**, 21, 1007-1011	6	51
352	Crystallographic relations between Ti3SiC2 and TiC. *Materials Research Innovations*, **2000**, 3, 286-291	1.9	51
351	Theoretical investigation of A-element atom diffusion in Ti2AC (A=Sn, Ga, Cd, In, and Pb). *Applied Physics Letters*, **2009**, 94, 181906	3.4	50
350	Low-temperature synthesis/densification and properties of Si2N2O prepared with Li2O additive. *Journal of the European Ceramic Society*, **2007**, 27, 4767-4772	6	50
349	Tribological Properties of Polycrystalline Ti3SiC2 and Al2O3-Reinforced Ti3SiC2 Composites. *Journal of the American Ceramic Society*, **2006**, 89, 3456-3461	3.8	50
348	Temperature fluctuation/hot pressing synthesis of Ti3SiC2. *Journal of Materials Science*, **2000**, 35, 4343-4346	4.5	50
347	Resistance of polyimide/silica hybrid films to atomic oxygen attack. *Surface and Coatings Technology*, **2006**, 200, 6671-6677	4.4	49
346	High entropy (Yb0.25Y0.25Lu0.25Er0.25)2SiO5 with strong anisotropy in thermal expansion. *Journal of Materials Science and Technology*, **2020**, 36, 134-139	9.1	49
345	Electrical conductive and damage-tolerant nanolaminated MAB phases Cr2AlB2, Cr3AlB4 and Cr4AlB6. *Materials Research Letters*, **2017**, 5, 440-448	7.4	48
344	Mechanical Properties and Damage Tolerance of Bulk Yb3Al5O12 Ceramic. *Journal of Materials Science and Technology*, **2015**, 31, 369-374	9.1	48

343	Ab initio modeling of the formation and migration of monovacancies in Ti2AlC. *Scripta Materialia*, **2008**, 59, 854-857	5.6	48
342	Shear strength and shear failure of layered machinable Ti3AlC2 ceramics. *Journal of the European Ceramic Society*, **2004**, 24, 855-860	6	48
341	Porous high entropy (Zr0.2Hf0.2Ti0.2Nb0.2Ta0.2)B2: A novel strategy towards making ultrahigh temperature ceramics thermal insulating. *Journal of Materials Science and Technology*, **2019**, 35, 2404-2408	9.1	47
340	Variation of microstructure and composition of the Cr2AlC coating prepared by sputtering at 370 and 500□C. *Surface and Coatings Technology*, **2010**, 204, 3838-3845	4.4	47
339	Preparation Of TiC Free Ti3SiC2 With Improved Oxidation Resistance By Substitution Of Si With Al. *Materials Research Innovations*, **2004**, 8, 97-102	1.9	47
338	In Situ Processing and High-Temperature Properties of Ti3Si(Al)C2/SiC Composites. *International Journal of Applied Ceramic Technology*, **2006**, 3, 47-54	2	45
337	Seed-mediated synthesis of uniform ZnO nanorods in the presence of polyethylene glycol. *Journal of Crystal Growth*, **2004**, 270, 527-534	1.6	45
336	Phase pure and well crystalline Cr2AlB2: A key precursor for two-dimensional CrB. *Journal of Materials Science and Technology*, **2019**, 35, 1593-1600	9.1	44
335	Effect of grain size, notch width, and testing temperature on the fracture toughness of Ti3Si(Al)C2 and Ti3AlC2 using the chevron-notched beam (CNB) method. *Journal of the European Ceramic Society*, **2008**, 28, 663-669	6	44
334	First-principles study of equilibrium properties and electronic structure of Ti3Si0.75Al0.25C2solid solution. *Journal of Physics Condensed Matter*, **2003**, 15, 5959-5968	1.8	44
333	Electrochemical deposition and characterization of Cu2O nanowires. *Applied Physics A: Materials Science and Processing*, **2005**, 81, 685-689	2.6	44
332	Theoretical prediction on mechanical and thermal properties of a promising thermal barrier material: Y4Al2O9. *Journal of Advanced Ceramics*, **2015**, 4, 83-93	10.7	43
331	Ab initio study of polymorphism in layered ternary carbide M4AlC3 (M=V, Nb and Ta). *Scripta Materialia*, **2008**, 58, 1043-1046	5.6	43
330	Interfacial microstructure of Ti3AlC2 and Al2O3 oxide scale. *Scripta Materialia*, **2006**, 54, 1815-1820	5.6	43
329	Damage tolerance of nanolayer grained ceramics and quantitative estimation. *Materials Science and Technology*, **2006**, 22, 227-230	1.5	43
328	Chemical reaction and stability of Ti3SiC2in Cu during high-temperature processing of Cu/Ti3SiC2composites. *International Journal of Materials Research*, **2004**, 95, 50-56		43
327	Reactive Hot Pressing and Properties of Nb2AlC. *Journal of the American Ceramic Society*, **2009**, 92, 2396-2399	3.8	41
326	Corrosion behavior of Ti3AlC2 in NaOH and H2SO4. *Journal of the European Ceramic Society*, **2010**, 30, 3227-3234	6	41

325	Thermal stability of Ti3AlC2/Al2O3 composites in high vacuum. *Materials Chemistry and Physics*, **2007**, 104, 109-112	4.4	41
324	Theoretical Investigation on Mechanical and Thermal Properties of a Promising Thermal Barrier Material: Yb3Al5O12. *Journal of Materials Science and Technology*, **2014**, 30, 631-638	9.1	40
323	Insights into high temperature oxidation of Al2O3-forming Ti3AlC2. *Corrosion Science*, **2012**, 58, 95-103	6.8	40
322	Short-term oxidation resistance and degradation of Cr2AlC coating on M38G superalloy at 900–1100°C. *Corrosion Science*, **2011**, 53, 3813-3820	6.8	40
321	Highly conductive and strengthened copper matrix composite reinforced by Zr2Al3C4 particulates. *Scripta Materialia*, **2009**, 60, 976-979	5.6	40
320	Crystal structure and theoretical elastic property of two new ternary ceramics Hf3Al4C6 and Hf2Al4C5. *Scripta Materialia*, **2008**, 58, 679-682	5.6	40
319	(TiZrHf)P2O7: An equimolar multicomponent or high entropy ceramic with good thermal stability and low thermal conductivity. *Journal of Materials Science and Technology*, **2019**, 35, 2227-2231	9.1	39
318	High-temperature internal friction, stiffness and strength of Zr–Al(Si)–C ceramics. *Scripta Materialia* , **2009**, 61, 60-63	5.6	39
317	Mechanical and Thermophysical Properties of Zr–Al–Si–C Ceramics. *Journal of the American Ceramic Society*, **2009**, 92, 445-451	3.8	39
316	Oxidation of Zr2[Al(Si)]4C5 and Zr3[Al(Si)]4C6 in air. *Journal of Materials Research*, **2008**, 23, 3339-3346	2.5	39
315	Fluctuation synthesis and characterization of Ti3SiC2 powders. *Materials Research Innovations*, **1999** , 2, 227-231	1.9	39
314	(La0.2Ce0.2Nd0.2Sm0.2Eu0.2)PO4: A high-entropy rare-earth phosphate monazite ceramic with low thermal conductivity and good compatibility with Al2O3. *Journal of Materials Science and Technology*, **2019**, 35, 2892-2896	9.1	38
313	Reciprocating friction and wear behavior of Ti3AlC2 and Ti3AlC2/Al2O3 composites against AISI52100 bearing steel. *Wear*, **2009**, 266, 158-166	3.5	38
312	Microstructure and mechanical strength of diffusion-bonded Ti3SiC2/Ni joints. *Journal of Materials Research*, **2006**, 21, 2415-2421	2.5	38
311	Preparation of Ti2SnC by solid–liquid reaction synthesis and simultaneous densification method. *Materials Research Innovations*, **2002**, 6, 219-225	1.9	38
310	(Y0.25Yb0.25Er0.25Lu0.25)2(Zr0.5Hf0.5)2O7: A defective fluorite structured high entropy ceramic with low thermal conductivity and close thermal expansion coefficient to Al2O3. *Journal of Materials Science and Technology*, **2020**, 39, 167-172	9.1	38
309	One-step synthesis and electromagnetic absorption properties of high entropy rare earth hexaborides (HE REB6) and high entropy rare earth hexaborides/borates (HE REB6/HE REBO3) composite powders. *Journal of Advanced Ceramics*, **2021**, 10, 62-77	10.7	38
308	Microstructural relationships between compounds in the Ti–Si–C system. *Scripta Materialia*, **2006**, 55, 445-448	5.6	37

307	Synthesis and oxidation of Zr3Al3C5 powders. *International Journal of Materials Research*, **2007**, 98, 3-9	0.5	37
306	Oxidation behavior of TiC-containing Ti3AlC2 based material at 500900 °C in air. *Materials Research Innovations*, **2003**, 7, 381-390	1.9	37
305	Segregation of solute atoms (Y, Nb, Ta, Mo and W) in ZrB2 grain boundaries and their effects on grain boundary strengths: A first-principles investigation. *Acta Materialia*, **2017**, 127, 312-318	8.4	36
304	Discovery of ABO3 perovskites as thermal barrier coatings through high-throughput first principles calculations. *Materials Research Letters*, **2019**, 7, 145-151	7.4	36
303	Corrosion behavior of selected Mn+1AXn phases in hot concentrated HCl solution: Effect of A element and MX layer. *Corrosion Science*, **2012**, 60, 129-135	6.8	36
302	Preparation of Reticulated MAX-Phase Support with Morphology-Controllable Nanostructured Ceria Coating for Gas Exhaust Catalyst Devices. *Journal of the American Ceramic Society*, **2010**, 93, 2591-2597	3.8	36
301	Isothermal oxidation of bulk Zr2Al3C4 at 500 to 1000 °C in air. *Journal of Materials Research*, **2008**, 23, 359-366	2.5	36
300	Oxidation resistance of Cr1−xAlxN (0.18≤x≤0.47) coatings on K38G superalloy at 1000–1100 °C in air. *Surface and Coatings Technology*, **2006**, 201, 2878-2886	4.4	36
299	First-principles investigation of intrinsic defects and (N, O) impurity atom stimulated Al vacancy in Ti2AlC. *Applied Physics Letters*, **2008**, 93, 261911	3.4	35
298	Solid–liquid reaction synthesis and thermalstability of Ti2SnC powders. *Journal of Materials Chemistry*, **2001**, 11, 1402-1407		35
297	Theoretical investigation of anisotropic mechanical and thermal properties of ABO3 (A=Sr, Ba; B=Ti, Zr, Hf) perovskites. *Journal of the American Ceramic Society*, **2018**, 101, 3527-3540	3.8	34
296	Preparation, mechanical, and thermal properties of a promising thermal barrier material: Y4Al2O9. *Journal of Advanced Ceramics*, **2015**, 4, 94-102	10.7	34
295	Oxidation behavior of bulk Tiu3SiCu2 at intermediate temperatures in dry air. *Journal of Materials Research*, **2006**, 21, 402-408	2.5	34
294	Ab initio computations of electronic, mechanical, lattice dynamical and thermal properties of ZrP2O7. *Journal of the European Ceramic Society*, **2014**, 34, 1809-1818	6	33
293	Surface Chemistry, Dispersion Behavior, and Slip Casting of Ti3AlC2 Suspensions. *Journal of the American Ceramic Society*, **2009**, 92, 1695-1702	3.8	33
292	Effect of LiYO2 on the synthesis and pressureless sintering of Y2SiO5. *Journal of Materials Research* , **2008**, 23, 732-736	2.5	33
291	Ab initioinvestigation of the electronic structure and bonding properties of the layered ternary compound Ti3SiC2at high pressure. *Journal of Physics Condensed Matter*, **2003**, 15, 1983-1991	1.8	33
290	Crystal structure of Cr4AlB4: A new MAB phase compound discovered in Cr-Al-B system. *Journal of Materials Science and Technology*, **2019**, 35, 530-534	9.1	33

289	Theoretical investigation of thermodynamic stability and mobility of the intrinsic point defects in Ti3AC2 (A = Si, Al). *Physical Chemistry Chemical Physics*, **2015**, 17, 8927-34	3.6	32
288	High entropy (Y0.2Yb0.2Lu0.2Eu0.2Er0.2)3Al5O12: A novel high temperature stable thermal barrier material. *Journal of Materials Science and Technology*, **2020**, 48, 57-62	9.1	32
287	Effect of SiC particles on the friction and wear behavior of Ti3Si(Al)C2-based composites. *Wear*, **2007**, 262, 826-832	3.5	32
286	Polymorphism of Ti3SiC2. *Journal of Materials Research*, **2002**, 17, 948-950	2.5	32
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1 A Novel Method to Fabricate Tough Cylindrical Ti2AlC/Graphite Layered Composite with Improved Deformation Capacity. *Journal of the Korean Ceramic Society*, **2012**, 49, 369-374 2.2