Rishi Raj

List of Publications by Citations

416	19,010	73	122
papers	citations	h-index	g-index
442	20,659	4.3	7.2
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
416	On grain boundary sliding and diffusional creep. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1971**, 2, 1113-1127		989
415	Intergranular fracture at elevated temperature. *Acta Metallurgica*, **1975**, 23, 653-666		706
414	Flash Sintering of Nanograin Zirconia in . *Journal of the American Ceramic Society*, **2010**, 93, 3556-3559	3.8	600
413	Wettability of graphene. *Nano Letters*, **2013**, 13, 1509-15	11.5	326
412	Joule heating during flash-sintering. *Journal of the European Ceramic Society*, **2012**, 32, 2293-2301	6	311
411	Measurement of the ultimate shear strength of a metal-ceramic interface. *Acta Metallurgica*, **1989**, 37, 1265-1270		309
410	The effect of particle size on the thermal conductivity of ZnS/diamond composites. *Acta Metallurgica Et Materialia*, **1992**, 40, 123-129		300
409	Development of a Processing Map for Use in Warm-Forming and Hot-Forming Processes. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1981**, 12, 1089-1097		294
408	Creep in polycrystalline aggregates by matter transport through a liquid phase. *Journal of Geophysical Research*, **1982**, 87, 4731-4739		292
407	Field assisted and flash sintering of alumina and its relationship to conductivity and MgO-doping. *Journal of the European Ceramic Society*, **2011**, 31, 2827-2837	6	264
406	Solution-precipitation creep in glass ceramics. *Acta Metallurgica*, **1981**, 29, 159-166		258
405	Estimate of the Activation Energies for Boundary Diffusion from Rate-Controlled Sintering of Pure Alumina, and Alumina Doped with Zirconia or Titania. *Journal of the American Ceramic Society*, **1990**, 73, 1172-1175	3.8	251
404	Influence of Externally Imposed and Internally Generated Electrical Fields on Grain Growth, Diffusional Creep, Sintering and Related Phenomena in Ceramics. *Journal of the American Ceramic Society*, **2011**, 94, 1941-1965	3.8	234
403	Mapping sp2 and sp3 states of carbon at sub-nanometre spatial resolution. *Nature*, **1993**, 366, 725-727	50.4	215
402	Amorphous Silicoboron Carbonitride Ceramic with Very High Viscosity at Temperatures above 1500°C. *Journal of the American Ceramic Society*, **1998**, 81, 3341-3344	3.8	208
401	Nucleation of cavities at second phase particles in grain boundaries. *Acta Metallurgica*, **1978**, 26, 995-1006		208
400	Sintering Behavior of Ceramic Films Constrained by a Rigid Substrate. *Journal of the American Ceramic Society*, **1985**, 68, 287-292	3.8	195

399	Sintering behavior of bi-modal powder compacts. *Acta Metallurgica*, **1984**, 32, 1003-1019		192
398	Flash-Sintering of Cubic Yttria-Stabilized Zirconia at 750°C for Possible Use in SOFC Manufacturing. *Journal of the American Ceramic Society*, **2011**, 94, 316-319	3.8	190
397	Fundamental Research in Structural Ceramics for Service Near 2000°C. *Journal of the American Ceramic Society*, **1993**, 76, 2147-2174	3.8	188
396	Flash-sintering of Co2MnO4 spinel for solid oxide fuel cell applications. *Journal of Power Sources*, **2011**, 196, 2061-2065	8.9	160
395	Influence of the Field and the Current Limit on Flash Sintering at Isothermal Furnace Temperatures. *Journal of the American Ceramic Society*, **2013**, 96, 2754-2758	3.8	153
394	Fabrication of SiCN MEMS by photopolymerization of pre-ceramic polymer. *Sensors and Actuators A: Physical*, **2002**, 95, 120-134	3.9	149
393	Newtonian Viscosity of Amorphous Silicon Carbonitride at High Temperature. *Journal of the American Ceramic Society*, **2005**, 81, 1349-1352	3.8	147
392	Shear Deformation and Densification of Powder Compacts. *Journal of the American Ceramic Society*, **1986**, 69, 499-506	3.8	145
391	A picoscale catalyst for hydrogen generation from NaBH4 for fuel cells. *Journal of Power Sources*, **2007**, 165, 315-323	8.9	142
390	Creep fracture in ceramics containing small amounts of a liquid phase. *Acta Metallurgica*, **1982**, 30, 1043-1058		139
389	Mechanism of Superplastic Flow in a Fine-Grained Ceramic Containing Some Liquid Phase. *Journal of the American Ceramic Society*, **1984**, 67, 399-409	3.8	134
388	A Huge Effect of Weak dc Electrical Fields on Grain Growth in Zirconia. *Journal of the American Ceramic Society*, **2009**, 92, 1856-1859	3.8	129
387	Activation Energy for the Sintering of Two-Phase Alumina/Zirconia Ceramics. *Journal of the American Ceramic Society*, **1991**, 74, 1959-1963	3.8	129
386	Densification behaviour and microstructural development in undoped yttria prepared by flash-sintering. *Journal of the European Ceramic Society*, **2014**, 34, 991-1000	6	128
385	The Effect of Electric Field on Sintering and Electrical Conductivity of Titania. *Journal of the American Ceramic Society*, **2014**, 97, 527-534	3.8	128
384	Fabrication of SiCN ceramic MEMS using injectable polymer-precursor technique. *Sensors and Actuators A: Physical*, **2001**, 89, 64-70	3.9	128
383	Defect Structure of Flash-Sintered Strontium Titanate. *Journal of the American Ceramic Society*, **2012**, 95, 2531-2536	3.8	125
382	Flash sintering as a nucleation phenomenon and a model thereof. *Journal of the European Ceramic Society*, **2014**, 34, 4063-4067	6	120

381	Enhanced Sintering Rate of Zirconia (3Y-TZP) Through the Effect of a Weak dc Electric Field on Grain Growth. *Journal of the American Ceramic Society*, **2010**, 93, 2935-2937	3.8	119
380	Crystallization Maps for SiCO Amorphous Ceramics. *Journal of the American Ceramic Society*, **2007**, 90, 578-583	3.8	114
379	BaSi2 and thin film alkaline earth silicides on silicon. *Applied Physics Letters*, **1993**, 63, 2818-2820	3.4	113
378	Current limit diagrams for dendrite formation in solid-state electrolytes for Li-ion batteries. *Journal of Power Sources*, **2017**, 343, 119-126	8.9	111
377	Analysis of the Power Density at the Onset of Flash Sintering. *Journal of the American Ceramic Society*, **2016**, 99, 3226-3232	3.8	111
376	Non-wetting droplets on hot superhydrophilic surfaces. *Nature Communications*, **2013**, 4, 2518	17.4	106
375	Mechanical properties of a fully dense polymer derived ceramic made by a novel pressure casting process. *Acta Materialia*, **2002**, 50, 4093-4103	8.4	105
374	Transient behavior of diffusion-induced creep and creep rupture. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1975**, 6, 1499-1509		105
373	Grain-Growth Transition During Sintering of Colloidally Prepared Alumina Powder Compacts. *Journal of the American Ceramic Society*, **1988**, 71, 1031-1035	3.8	104
372	Grain size distribution effects in superplasticity. *Acta Metallurgica*, **1981**, 29, 607-616		104
371	Thermodynamically Stable SixOyCz Polymer-Like Amorphous Ceramics. *Journal of the American Ceramic Society*, **2007**, 90, 3213-3219	3.8	101
370	Crystallization of small quantities of glass (or a liquid) segregated in grain boundaries. *Acta Metallurgica*, **1981**, 29, 1993-2000		101
369	Sintering of TiO2Al2O3 Composites: A Model Experimental Investigation. *Journal of the American Ceramic Society*, **1988**, 71, 302-310	3.8	100
368	Measurement of viscosity of the grain-boundary phase in hot-pressed silicon nitride. *Journal of Materials Science*, **1976**, 11, 49-53	4.3	98
367	Flaw Generation During Constrained Sintering of Metal-Ceramic and MetalGlass Multilayer Films. *Journal of the American Ceramic Society*, **1989**, 72, 1649-1655	3.8	97
366	Unified model for contact angle hysteresis on heterogeneous and superhydrophobic surfaces. *Langmuir*, **2012**, 28, 15777-88	4	96
365	Cyclic stability and C-rate performance of amorphous silicon and carbon based anodes for electrochemical storage of lithium. *Journal of Power Sources*, **2011**, 196, 2179-2186	8.9	96
364	Overview no. 100 Scalings in fracture probabilities for a brittle matrix fiber composite. *Acta Metallurgica Et Materialia*, **1992**, 40, 2813-2828		95

363	Superplastic Flow in Fine-Grained Alumina. *Journal of the American Ceramic Society*, **1986**, 69, 135-138	3.8	95
362	Field-assisted sintering of undoped BaTiO3: Microstructure evolution and dielectric permittivity. *Journal of the European Ceramic Society*, **2014**, 34, 3655-3660	6	94
361	Oxidation Kinetics of an Amorphous Silicon Carbonitride Ceramic. *Journal of the American Ceramic Society*, **2004**, 84, 1803-1810	3.8	92
360	Use of the internal friction technique to measure rates of grain boundary sliding. *Acta Metallurgica*, **1974**, 22, 1469-1474		90
359	Particle size effects in flash sintering. *Journal of the European Ceramic Society*, **2012**, 32, 3129-3136	6	89
358	Electroluminescence and the measurement of temperature during Stage III of flash sintering experiments. *Journal of the European Ceramic Society*, **2015**, 35, 3195-3199	6	87
357	Diffusional relaxation of stress concentration at second phase particles. *Acta Metallurgica*, **1978**, 26, 1551-1558		87
356	MgO epitaxial thin films on (100) GaAs as a substrate for the growth of oriented PbTiO3. *Applied Physics Letters*, **1992**, 60, 3105-3107	3.4	86
355	Segregation of Mg to the (0001) Surface of Doped Sapphire. *Journal of the American Ceramic Society*, **1985**, 68, 281-286	3.8	83
354	Fracture at elevated temperature. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1977**, 8, 1917-1933		82
353	Pyrolysis Kinetics for the Conversion of a Polymer into an Amorphous Silicon Oxycarbide Ceramic. *Journal of the American Ceramic Society*, **2002**, 85, 2181-2187	3.8	80
352	Flash-Sinterforging of Nanograin Zirconia: Field Assisted Sintering and Superplasticity. *Journal of the American Ceramic Society*, **2012**, 95, 138-146	3.8	78
351	Morphology and Stability of the Glass Phase in Glass Ceramic Systems. *Journal of the American Ceramic Society*, **1981**, 64, 245-248	3.8	78
350	Preparation of Ultrathin-Walled Carbon-Based Nanoporous Structures by Etching Pseudo-Amorphous Silicon Oxycarbide Ceramics. *Journal of the American Ceramic Society*, **2006**, 89, 2473-2480	3.8	77
349	Field assisted sintering of ceramic constituted by alumina and yttria stabilized zirconia. *Journal of the European Ceramic Society*, **2014**, 34, 2435-2442	6	75
348	Influence of microstructural scale on plastic flow behavior of metal matrix composites. *Acta Materialia*, **1997**, 45, 1633-1643	8.4	75
347	The Role of Grain-Boundary Sliding in Fracture of Hot-Pressed Si3N4 at High Temperatures. *Journal of the American Ceramic Society*, **1980**, 63, 513-517	3.8	75
346	Influence of hydrostatic pressure and multiaxial straining on cavitation in a superplastic aluminum alloy. *Acta Metallurgica*, **1982**, 30, 2043-2053		75

345	Thermodynamic measurements pertaining to the hysteretic intercalation of lithium in polymer-derived silicon oxycarbide. *Journal of Power Sources*, **2010**, 195, 3900-3906	8.9	74
344	Characterization of Nanodomains in Polymer-Derived SiCN Ceramics Employing Multiple Techniques. *Journal of the American Ceramic Society*, **2004**, 88, 232-234	3.8	74
343	Intergranular fracture in bicrystals. *Acta Metallurgica*, **1978**, 26, 341-349		73
342	Design of micropillar wicks for thin-film evaporation. *International Journal of Heat and Mass Transfer*, **2016**, 101, 280-294	4.9	71
341	Emergence and Extinction of a New Phase During On□Off Experiments Related to Flash Sintering of 3YSZ. *Journal of the American Ceramic Society*, **2015**, 98, 1493-1497	3.8	70
340	High-resolution liquid patterns via three-dimensional droplet shape control. *Nature Communications*, **2014**, 5, 4975	17.4	70
339	Control of the mechanical properties of metal-ceramic interfaces through interfacial reactions. *Acta Metallurgica Et Materialia*, **1990**, 38, 2215-2224		70
338	Impedance Spectroscopy and Dielectric Properties of Flash Versus Conventionally Sintered Yttria-Doped Zirconia Electroceramics Viewed at the Microstructural Level. *Journal of the American Ceramic Society*, **2013**, 96, 3760-3767	3.8	68
337	Ultrahigh-Temperature Semiconductors Made from Polymer-Derived Ceramics. *Journal of the American Ceramic Society*, **2010**, 93, 1668	3.8	66
336	The role of carbon in unexpected visco(an)elastic behavior of amorphous silicon oxycarbide above 1273K. *Journal of Non-Crystalline Solids*, **2005**, 351, 2238-2243	3.9	66
335	Solution precursor chemical vapor deposition of titanium oxide thin films. *Thin Solid Films*, **1991**, 204, L13-L17	2.2	66
334	Packing and Sintering of Two-Dimensional Structures Made fro Bimodal Particle Size Distributions. *Journal of the American Ceramic Society*, **1987**, 70, 843-849	3.8	66
333	Copper on sapphire: Stability of thin films at 0.7 Tm. *Acta Metallurgica*, **1989**, 37, 2947-2952		65
332	Lithium Insertion in Polymer-Derived Silicon Oxycarbide Ceramics. *Journal of the American Ceramic Society*, **2010**, 93, 1127-1135	3.8	64
331	Separation of Cavitation-Strain and Creep-Strain During Deformation. *Journal of the American Ceramic Society*, **1982**, 65, C-46-C-46	3.8	64
330	Processing and characterization of silicon carbon-nitride ceramics: application of electrical properties towards MEMS thermal actuators. *Sensors and Actuators A: Physical*, **2003**, 103, 171-181	3.9	63
329	Micromechanical modelling of creep using distributed parameters. *Acta Metallurgica*, **1981**, 29, 283-292		63
328	Introduction to the Special Topical Issue on Ultrahigh-Temperature Polymer-Derived Ceramics. *Journal of the American Ceramic Society*, **2004**, 84, 2158-2159	3.8	62

327	Analysis of the Sintering Pressure. *Journal of the American Ceramic Society*, **1987**, 70, C-210-C-211	3.8	62
326	Domain structure and phase transitions in epitaxial KNbO3 thin films studied by in situ second harmonic generation measurements. *Applied Physics Letters*, **1996**, 68, 1323-1325	3.4	61
325	Ultimate shear strengths of copper-silica and nickel-silica interfaces. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1990**, 126, 125-131	5.3	61
324	Correction to: Intergranular fracture at elevated temperature *Scripta Metallurgica*, **1977**, 11, 839-842		61
323	Phase-pure BiFeO3 produced by reaction flash-sintering of Bi2O3 and Fe2O3. *Journal of Materials Chemistry A*, **2018**, 6, 5356-5366	13	59
322	Giant piezoresistivity of polymer-derived ceramics at high temperatures. *Journal of the European Ceramic Society*, **2010**, 30, 2203-2207	6	59
321	Application of microforging to SiCN MEMS fabrication. *Sensors and Actuators A: Physical*, **2002**, 95, 143-151	3.9	59
320	Shear and Densification of Glass Powder Compacts. *Journal of the American Ceramic Society*, **1989**, 72, 798-804	3.8	57
319	A First Report of Photoemission in Experiments Related to Flash Sintering. *Journal of the American Ceramic Society*, **2014**, 97, 2427-2430	3.8	56
318	Passive Oxidation of an Effluent System: The Case of Polymer-Derived SiCO. *Journal of the American Ceramic Society*, **2005**, 88, 339-345	3.8	56
317	Hold-time effects in high temperature fatigue. *Acta Metallurgica*, **1978**, 26, 1007-1022		56
316	Beyond flash sintering in 3 mol % yttria stabilized zirconia. *Journal of the Ceramic Society of Japan*, **2016**, 124, 283-288	1	55
315	Grain boundary sliding, and the effects of particles on its rate. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **1972**, 3, 1937-1942	2.5	55
314	Phase transformation in the alumina titania system during flash sintering experiments. *Journal of the European Ceramic Society*, **2016**, 36, 733-739	6	54
313	Time evolution of stress redistribution around multiple fiber breaks in a composite with viscous and viscoelastic matrices. *International Journal of Solids and Structures*, **1998**, 35, 3177-3211	3.1	54
312	Sinter-Forging Characteristics of fine-Grained Zirconia. *Journal of the American Ceramic Society*, **1988**, 71, C-507-C-509	3.8	53
311	Superplastic Deformation in Fine-Grained MgO 2Al2O3 Spinel. *Journal of the American Ceramic Society*, **1985**, 68, 522-529	3.8	53
310	In-situ measurements of lattice expansion related to defect generation during flash sintering. *Journal of the American Ceramic Society*, **2017**, 100, 4965-4970	3.8	51

309	Contact line behavior for a highly wetting fluid under superheated conditions. *International Journal of Heat and Mass Transfer*, **2012**, 55, 2664-2675	4.9	51
308	Study of the pyrolysis process of an hybrid CH3SiO1.5 gel into a SiCO glass. *Vibrational Spectroscopy* , **2007**, 45, 61-68	2.1	51
307	Analysis of Solidification of a Semitransparent Planar Layer Using the Lattice Boltzmann Method and the Discrete Transfer Method. *Numerical Heat Transfer; Part A: Applications*, **2006**, 49, 279-299	2.3	51
306	Silicon-oxycarbide based thin film anodes for lithium ion batteries. *Journal of Power Sources*, **2011**, 196, 5945-5950	8.9	49
305	Analysis of Sintering of a Composite with a Glass or Ceramic Matrix. *Journal of the American Ceramic Society*, **1986**, 69, C-55-C-57	3.8	48
304	The onset of the flash transition in single crystals of cubic zirconia as a function of electric field and temperature. *Scripta Materialia*, **2017**, 134, 123-127	5.6	46
303	Surface Diffusion-Controlled Neck Growth Kinetics in Early Stage Sintering of Zirconia, with and without Applied DC Electrical Field. *Journal of the American Ceramic Society*, **2011**, 94, 391-395	3.8	46
302	Enhancement of Strength through Sinter Forging. *Journal of the American Ceramic Society*, **1987**, 70, 514-520	3.8	46
301	X-ray characterization of the domain structure of epitaxial lead titanate thin films on (001) strontium titanate. *Applied Physics Letters*, **1995**, 67, 792-794	3.4	45
300	Epitaxial LiTaO3 thin film by pulsed metalorganic chemical vapor deposition from a single precursor. *Applied Physics Letters*, **1993**, 63, 3146-3148	3.4	44
299	Energetics of SixOyCz Polymer-Derived Ceramics Prepared Under Varying Conditions. *Journal of the American Ceramic Society*, **2008**, 91, 2969-2974	3.8	43
298	Effect of the Heating Rate on the Relative Rates of Sintering and Crystallization in Glass. *Journal of the American Ceramic Society*, **1989**, 72, 2361-2364	3.8	43
297	Flash sintering of highly insulating nanostructured phase-pure BiFeO3. *Journal of the American Ceramic Society*, **2017**, 100, 3365-3369	3.8	42
296	Pyrolysis of Titanicone Molecular Layer Deposition Films as Precursors for Conducting TiO2/Carbon Composite Films. *Journal of Physical Chemistry C*, **2013**, 117, 17442-17450	3.8	42
295	Polymer-Derived Ceramic Materials from Thiol-ene Photopolymerizations. *Chemistry of Materials*, **2003**, 15, 4257-4261	9.6	42
294	Polymer-derived SiCN composites with magnetic properties. *Journal of Materials Research*, **2003**, 18, 2549-2551	2.5	42
293	A Model for the Nanodomains in Polymer-Derived SiCO. *Journal of the American Ceramic Society*, **2006**, 89, 060428035142017-???	3.8	41
292	Influence of Grain Size on Ferroelastic Toughening and Piezoelectric Behavior of Lead Zirconate Titanate. *Journal of the American Ceramic Society*, **1995**, 78, 3363-3368	3.8	41

291	Effect of hydrophilic defects on water transport in MFI zeolites. *Langmuir*, **2014**, 30, 6446-53	4	40
290	Electric field-induced softening of alkali silicate glasses. *Applied Physics Letters*, **2015**, 107, 184101	3.4	40
289	Rate mechanisms of a novel thiol-ene photopolymerization reaction. *Macromolecular Symposia*, **2004**, 206, 361-374	0.8	40
288	Creep crack propagation by cavitation near crack tips. *Metal Science*, **1980**, 14, 385-394		40
287	Surfactants for Bubble Removal against Buoyancy. *Scientific Reports*, **2016**, 6, 19113	4.9	40
286	Fracture toughness of diamondlike carbon coatings. *Journal of Materials Research*, **1999**, 14, 2173-2180	2.5	39
285	Stress rupture. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science* , **1981**, 12, 1291-1302		39
284	Subcooled Pool Boiling in Variable Gravity Environments. *Journal of Heat Transfer*, **2009**, 131,	1.8	38
283	Oxidation Behavior of SiCN/ZrO2 Fiber Prepared from Alkoxide-Modified Silazane. *Journal of the American Ceramic Society*, **2004**, 87, 1556-1558	3.8	38
282	Measurement of O and Ti atom displacements in TiO2 during flash sintering experiments. *Journal of the American Ceramic Society*, **2018**, 101, 1811-1817	3.8	38
281	A novel in-situ polymer derived nano ceramic MMC by friction stir processing. *Materials and Design*, **2015**, 85, 626-634	8.1	37
280	Electronic conductivity in gadolinium doped ceria under direct current as a trigger for flash sintering. *Scripta Materialia*, **2020**, 179, 55-60	5.6	37
279	Electric field induced texture in titania during experiments related to flash sintering. *Journal of the European Ceramic Society*, **2016**, 36, 257-261	6	37
278	Mechanical and Tribological Behavior of Polymer-Derived Ceramics Constituted from SiCxOyNz. *Journal of the American Ceramic Society*, **2006**, 89, 3706-3714	3.8	37
277	A model for the evolution of grain size distribution during superplastic deformation. *Acta Metallurgica*, **1986**, 34, 447-456		37
276	Influence of Hydrostatic Pressure and Humidity on Superplastic Ductility of Two β-Spodumene Glass-Ceramics. *Journal of the American Ceramic Society*, **1984**, 67, 385-390	3.8	37
275	Flash Sintering of Anode/Electrolyte Multilayers for SOFC Applications. *Journal of the American Ceramic Society*, **2013**, 96, 1352-1354	3.8	36
274	Measurement of an electrical potential induced by normal stress applied to the interface of an ionic material at elevated temperatures. *Acta Materialia*, **1999**, 47, 3423-3431	8.4	35

273	Ultra-high vacuum chemical vapor deposition and in situ characterization of titanium oxide thin films. *Journal of Materials Research*, **1991**, 6, 1913-1918	2.5	35
272	Generation of Frenkel defects above the Debye temperature by proliferation of phonons near the Brillouin zone edge. *New Journal of Physics*, **2018**, 20, 093013	2.9	35
271	Flash sintering of a three-phase alumina, spinel, and yttria-stabilized zirconia composite. *Journal of the American Ceramic Society*, **2017**, 100, 3262-3268	3.8	34
270	Two unique measurements related to flash experiments with yttria-stabilized zirconia. *Journal of the American Ceramic Society*, **2017**, 100, 5374-5378	3.8	34
269	Interface effects in superplastic deformation of alumina containing zirconia, titania or hafnia as a second phase. *Acta Metallurgica Et Materialia*, **1991**, 39, 2909-2919		34
268	An upper bound on strain rate for wedge type fracture in nickel during creep. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1981**, 12, 515-520		34
267	On the role of Debye temperature in the onset of flash in three oxides. *Scripta Materialia*, **2019**, 170, 81-84	5.6	33
266	Electric field induced domain rearrangement in potassium niobate thin films studied by in situ second harmonic generation measurements. *Journal of Applied Physics*, **1997**, 81, 865-875	2.5	33
265	A novel micro glow plug fabricated from polymer-derived ceramics: in situ measurement of high-temperature properties and application to ultrahigh-temperature ignition. *Sensors and Actuators A: Physical*, **2003**, 104, 246-262	3.9	33
264	Current-rate flash sintering of gadolinium doped ceria: Microstructure and Defect generation. *Acta Materialia*, **2020**, 189, 145-153	8.4	32
263	Correlations between conductivity, electroluminescence and flash sintering. *Scripta Materialia*, **2016**, 118, 1-4	5.6	32
262	Sintering and Crystallization of Glass at Constant Heating Rates. *Journal of the American Ceramic Society*, **1989**, 72, 1564-1566	3.8	32
261	Flash sintering with current rate: A different approach. *Journal of the American Ceramic Society*, **2019**, 102, 823-835	3.8	32
260	Pool Boiling Heat Transfer on the International Space Station: Experimental Results and Model Verification. *Journal of Heat Transfer*, **2012**, 134,	1.8	31
259	Analysis of the single-fiber-composite test to measure the mechanical properties of metal-ceramic interfaces. *Acta Metallurgica Et Materialia*, **1994**, 42, 4177-4187		31
258	Superplastic Deformation of Zinc Sulfide Near Its Transformation Temperature [1020°]. *Journal of the American Ceramic Society*, **1989**, 72, 1792-1796	3.8	31
257	Intergranular creep fracture in aggressive environments. *Acta Metallurgica*, **1982**, 30, 1259-1268		31
256	Intensely Photoluminescent Pseudo-Amorphous SiliconOxyCarboNitride Polymer‐Ceramic Hybrids. *Journal of the American Ceramic Society*, **2008**, 91, 2422-2424	3.8	30

255	Reactive flash sintering of the entropy-stabilized oxide Mg0.2Ni0.2Co0.2Cu0.2Zn0.2O. *Scripta Materialia*, **2020**, 181, 48-52	5.6	29
254	Domain configurations in ferroelectric PbTiO3 thin films: The influence of substrate and film thickness. *Solid State Ionics*, **1995**, 75, 43-48	3.3	29
253	Reactive flash sintering of powders of four constituents into a single phase of a complex oxide in a few seconds below 700□C. *Journal of the American Ceramic Society*, **2019**, 102, 6443-6448	3.8	28
252	Microstructure and microchemistry of flash sintered K0.5Na0.5NbO3. *Journal of the Ceramic Society of Japan*, **2016**, 124, 321-328	1	28
251	Growth rate and morphology for ceramic films by pulsed-MOCVD. *Surface and Coatings Technology*, **2001**, 141, 7-14	4.4	28
250	Autonucleation of cavities in thin ceramic films. *Acta Metallurgica*, **1989**, 37, 2035-2038		28
249	Better Sintering through Green-State Deformation Processing. *Journal of the American Ceramic Society*, **1990**, 73, 2032-2037	3.8	28
248	Thiol-ene photopolymerization of polymer-derived ceramic precursors. *Journal of Polymer Science Part A*, **2004**, 42, 1752-1757	2.5	27
247	Crystallization of Polymer-Derived Silicon Carbonitride at 1873 K under Nitrogen Overpressure. *Journal of the American Ceramic Society*, **2002**, 85, 2587-2589	3.8	27
246	Surfactant aided bubble departure during pool boiling. *International Journal of Thermal Sciences*, **2018**, 131, 105-113	4.1	27
245	Processing, microstructural evolution and strength properties of in-situ magnesium matrix composites containing nano-sized polymer derived SiCNO particles. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 685, 429-438	5.3	26
244	Reactive flash sintering: MgO and □Al2O3 transform and sinter into single-phase polycrystals of MgAl2O4. *Journal of the American Ceramic Society*, **2019**, 102, 2294-2303	3.8	26
243	Temperature Distributions During Flash Sintering of 8% Yttria-Stabilized Zirconia. *Journal of the American Ceramic Society*, **2015**, 98, 3525-3528	3.8	26
242	Synthesis and Tribological Behavior of Silicon Oxycarbonitride Thin Films Derived from Poly(Urea)Methyl Vinyl Silazane. *International Journal of Applied Ceramic Technology*, **2006**, 3, 113-126	2	26
241	Structure-Optical Property Correlation of Epitaxial Potassium Niobate Thin Films Deposited on Magnesium Oxide (100) Substrates Using a Strontium Titanate Transition Layer. *Journal of the American Ceramic Society*, **1995**, 78, 1825-1833	3.8	26
240	Kinetics of Precipitation of □Al2O3 in Polycrystalline Supersaturated MgO - 2Al2O3 Spinel Solid Solution. *Journal of the American Ceramic Society*, **1986**, 69, 365-373	3.8	26
239	□Alumina and spinel react into single-phase high-alumina spinel in . *Journal of the American Ceramic Society*, **2019**, 102, 644-653	3.8	25
238	Liquid Phase Sintered Solders with Indium as Minority Phase for Next Generation Thermal Interface Material Applications. *Journal of Electronic Materials*, **2009**, 38, 2735-2745	1.9	25

237	Nanoceramic Metal Matrix Composites by In-Situ Pyrolysis of Organic Precursors in a Liquid Melt. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2008**, 39, 3291-3297	2.3	25
236	Amorphous Silicon Carbonitride Fibers Drawn from Alkoxide Modified Ceraset *Journal of the American Ceramic Society*, **2003**, 86, 1443-1445	3.8	25
235	Activation Energies for Densification, Creep, and Grain-Boundary Sliding in Nitrogen Ceramics. *Journal of the American Ceramic Society*, **1981**, 64, C-143-C-145	3.8	25
234	Biomass-gasification-based atmospheric water harvesting in India. *Energy*, **2018**, 165, 610-621	7.9	25
233	Broadening of Diffraction Peak Widths and Temperature Nonuniformity During Flash Experiments. *Journal of the American Ceramic Society*, **2016**, 99, 3429-3434	3.8	24
232	C-rate performance of silicon oxycarbide anodes for Li+ batteries enhanced by carbon nanotubes. *Journal of Power Sources*, **2011**, 196, 2875-2878	8.9	23
231	Thermodynamically Stable SiwCxNyOz Polymer-Like, Amorphous Ceramics Made from Organic Precursors. *Journal of the American Ceramic Society*, **2008**, 91, 2391-2393	3.8	23
230	Nonlinear optical properties of epitaxial lithium tantalate thin films. *Journal of Applied Physics*, **1995**, 77, 3420-3425	2.5	23
229	The influence of Pt and SrTiO3 interlayers on the microstructure of PbTiO3 thin films deposited by laser ablation on (001) MgO. *Journal of Materials Research*, **1995**, 10, 791-794	2.5	23
228	Rate effects in metal-ceramic interface sliding from the periodic film cracking technique. *Acta Metallurgica Et Materialia*, **1992**, 40, 2269-2280		23
227	Preliminary investigation of hydroxyapatite microstructures prepared by flash sintering. *Advances in Applied Ceramics*, **2016**, 115, 276-281	2.3	23
226	Wettability-independent critical heat flux during boiling crisis in foaming solutions. *International Journal of Heat and Mass Transfer*, **2018**, 126, 567-579	4.9	22
225	Surface Energy of Sol Gel-Derived Silicon Oxycarbide Glasses. *Journal of the American Ceramic Society*, **2011**, 94, 4523-4533	3.8	22
224	On the Scaling of Pool Boiling Heat Flux With Gravity and Heater Size. *Journal of Heat Transfer*, **2012**, 134,	1.8	22
223	Novel Composites Constituted from Hafnia and a Polymer-Derived Ceramic as an Interface: Phase for Severe Ultrahigh Temperature Applications. *Journal of the American Ceramic Society*, **2007**, 90, 3171-3176	3.8	22
222	Conversion Efficiency of Alkoxide Precursor to Oxide Films Grown by an Ultrasonic-Assisted, Pulsed Liquid Injection, Metalorganic Chemical Vapor Deposition (Pulsed-CVD) Process. *Journal of the American Ceramic Society*, **2004**, 82, 1605-1607	3.8	22
221	Space-Charge-Controlled Diffusional Creep: Volume Diffusion Case *Journal of the American Ceramic Society*, **1996**, 79, 193-198	3.8	22
220	TEM study of the structure and chemistry of a diamond/silicon interface. *Journal of Materials Research*, **1994**, 9, 1566-1572	2.5	22

219	In situ stress-strain response of small metal particles embedded in a ceramic matrix. *Acta Metallurgica Et Materialia*, **1994**, 42, 2477-2485		22
218	Measurement of the Sintering Pressure in Ceramic Films. *Journal of the American Ceramic Society*, **1988**, 71, 276-280	3.8	22
217	Electric field-assisted flash sintering of CaCu3Ti4O12: Microstructure characteristics and dielectric properties. *Journal of Alloys and Compounds*, **2016**, 682, 753-758	5.7	22
216	Oxidation of Polymer-Derived HfSiCNO up to 1600°C. *Journal of the American Ceramic Society*, **2013**, 96, 1278-1284	3.8	21
215	Ultrahigh figure-of-merit for hydrogen generation from sodium borohydride using ternary metal catalysts. *Journal of Power Sources*, **2011**, 196, 69-75	8.9	21
214	Gravity Scaling Parameter for Pool Boiling Heat Transfer. *Journal of Heat Transfer*, **2010**, 132,	1.8	21
213	Superplastic flow in a non-stoichiometric ceramic: Magnesium aluminate spinel. *Acta Metallurgica Et Materialia*, **1993**, 41, 1229-1235		21
212	Effect of hot-pressing temperature on the optical transmission of zinc sulfide. *Applied Physics Letters*, **1991**, 58, 441-443	3.4	21
211	Type II Magnetic Levitation on Sinter-Forged YBa2Cu3Ox Superconductor. *Journal of the American Ceramic Society*, **1989**, 72, 846-848	3.8	21
210	Crack Initiation In Grain Boundaries Under Conditions of Steady-State and Cyclic Creep. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **1976**, 98, 132-139	1.8	21
209	Thermohydraulic characterization of flow boiling in a nanostructured microchannel heat sink with vapor venting manifold. *International Journal of Heat and Mass Transfer*, **2019**, 130, 1249-1259	4.9	21
208	Reactive flash sintering of the complex oxide Li0.5La0.5TiO3 starting from an amorphous precursor powder. *Scripta Materialia*, **2020**, 176, 78-82	5.6	21
207	Transition to electronic conduction at the onset of flash in cubic zirconia. *Scripta Materialia*, **2020**, 174, 29-32	5.6	21
206	Oxidation process of white SiOC(H) ceramics with various hydrogen contents. *Scripta Materialia*, **2013**, 69, 602-605	5.6	20
205	Nanoscale Densification Creep in Polymer-Derived Silicon Carbonitrides at 1350°C. *Journal of the American Ceramic Society*, **2004**, 84, 2208-2212	3.8	20
204	YSZ layers by pulsed-MOCVD on solid oxide fuel cell electrodes. *Surface and Coatings Technology*, **2003**, 167, 226-233	4.4	20
203	Heater Size and Gravity Based Pool Boiling Regime Map: Transition Criteria Between Buoyancy and Surface Tension Dominated Boiling. *Journal of Heat Transfer*, **2010**, 132,	1.8	19
202	Solidification of a semitransparent planar layer subjected to radiative and convective cooling. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2007**, 107, 226-235	2.1	19

201	Experimental Characterization and Modeling of Pulsed MOCVD with Ultrasonic Atomization of Liquid Precursor. *Chemical Vapor Deposition*, **2001**, 7, 85-90		19
200	Metalorganic Chemical Vapor Deposition by Pulsed Liquid Injection Using an Ultrasonic Nozzle: Titanium Dioxide on Sapphire from Titanium(IV) Isopropoxide. *Journal of the American Ceramic Society*, **1995**, 78, 2763-2768	3.8	19
199	Sapphire whiskers from boehmite gel seeded with □alumina. *Journal of Crystal Growth*, **1987**, 85, 527-534	1.6	19
198	Dissolution Kinetics of □Si3N4 in an Mg-Si-O-N Glass. *Journal of the American Ceramic Society*, **1982**, 65, 270-274	3.8	19
197	Life Prediction of Tungsten Filaments in Incandescent Lamps. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1978**, 9, 941-946		19
196	Continuous flash sintering. *Journal of the American Ceramic Society*, **2018**, 101, 1432-1440	3.8	18
195	On the thermodynamically stable amorphous phase of polymer-derived silicon oxycarbide. *Scientific Reports*, **2015**, 5, 14550	4.9	18
194	Multilayer Design and Evaluation of a High Temperature Environmental Barrier Coating for Si-Based Ceramics. *Journal of the American Ceramic Society*, **2007**, 90, 516-522	3.8	18
193	Effect of Steam Velocity on the Hydrothermal Oxidation/Volatilization of Silicon Nitride. *Journal of the American Ceramic Society*, **2006**, 89, 1380-1387	3.8	18
192	Hot Isostatic Pressing of Ceramic/Ceramic Composites at Pressures . *Advanced Ceramic Materials*, **1988**, 3, 122-126		18
191	On the synchronicity of flash sintering and phase transformation. *Journal of the American Ceramic Society*, **2019**, 102, 3110-3116	3.8	18
190	Influence of flash sintering on the ionic conductivity of 8 mol% yttria stabilized zirconia. *Journal of the European Ceramic Society*, **2019**, 39, 1352-1358	6	18
189	Framework water capacity and infiltration pressure of MFI zeolites. *Microporous and Mesoporous Materials*, **2014**, 190, 84-91	5.3	17
188	Mechanism of electric field-induced softening (EFIS) of alkali silicate glasses. *Journal of Non-Crystalline Solids*, **2017**, 471, 384-395	3.9	17
187	Semiconductive Behavior of Polymer-Derived SiCN Ceramics for Hydrogen□Sensing. *Journal of the American Ceramic Society*, **2015**, 98, 1052-1055	3.8	17
186	Electric Fields Obviate Constrained Sintering. *Journal of the American Ceramic Society*, **2014**, 97, 3103-3108	3.8	17
185	Spatial Variations in the Sintering Rate of Ordered and Disordered Particle Structures. *Journal of the American Ceramic Society*, **1988**, 71, C-408-C-410	3.8	17
184	Additive Manufacturing of Ceramics Enabled by Flash Pyrolysis of Polymer Precursors with Nanoscale Layers. *Journal of the American Ceramic Society*, **2016**, 99, 57-63	3.8	17

183	Dynamic Evolution of the Evaporating Liquid-Vapor Interface in Micropillar Arrays. *Langmuir*, **2016**, 32, 519-26	4	16
182	Shear strength and sliding at a metal□eramic (aluminum□pinel) interface at ambient and elevated temperatures. *Acta Materialia*, **2007**, 55, 3049-3057	8.4	16
181	Domain Structure-Second Harmonic Generation Correlation in Potassium Niobate Thin Films Deposited on a Strontium Titanate Substrate. *Journal of the American Ceramic Society*, **1996**, 79, 3289-3296	3.8	16
180	Fracture and Stiffness Characteristics of Particulate Composites of Diamond in Zinc Sulfide. *Journal of the American Ceramic Society*, **1990**, 73, 3074-3080	3.8	16
179	A model for subgrain superplastic flow in aluminum alloys. *Acta Metallurgica Et Materialia*, **1991**, 39, 679-688		16
178	Unstable Spreading of a Fluid Inclusion in a Grrain Boundary under Normal Stress. *Journal of the American Ceramic Society*, **1986**, 69, 708-712	3.8	16
177	De-adhesion by the growth of penny-shaped bubbles in an adhesive layer. *Philosophical Magazine and Journal*, **1975**, 32, 909-922		16
176	Droplets on Microdecorated Surfaces: Evolution of the Polygonal Contact Line. *Langmuir*, **2017**, 33, 4854-4862	4	15
175	Nanoporous evaporative device for advanced electronics thermal management **2014**,		15
174	A methodology for analyzing the variability in the performance of a MEMS actuator made from a novel ceramic. *Sensors and Actuators A: Physical*, **2004**, 116, 336-344	3.9	15
173	Model for the crystallization and sintering of unseeded and seeded boehmite gels. *Journal of Materials Science*, **1992**, 27, 2251-2257	4.3	15
172	Facile Fabrication of Nanostructured Microchannels for Flow Boiling Heat Transfer Enhancement. *Heat Transfer Engineering*, **2019**, 40, 537-548	1.7	15
171	A Novel In Situ Method for Producing a Dispersion of a Ceramic Phase into Copper That Remains Stable at 0.9T M. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2013**, 44, 4734-4742	2.3	14
170	Superefficient thin film multilayer catalyst for generating hydrogen from sodium borohydride. *Journal of Power Sources*, **2011**, 196, 741-746	8.9	14
169	Electron Cyclotron Resonance Plasma-Enhanced Metalorganic Chemical Vapor Deposition of Tantalum Oxide Thin Films on Silicon near Room Temperature. *Journal of the American Ceramic Society*, **1995**, 78, 1585-1592	3.8	14
168	In-Situ Measurement of Silica-Gel Coating on Particles of Alumina. *Journal of the American Ceramic Society*, **1990**, 73, 2163-2164	3.8	14
167	Deformation-induced phase transformation in zinc sulphide. *Journal of Materials Science Letters*, **1990**, 9, 818-819		14
166	Intergranular fracture in bicrystals□. *Acta Metallurgica*, **1982**, 30, 505-511		14

165	Polymer-Derived In-Situ Metal Matrix Composites Created by Direct Injection of a Liquid Polymer into Molten Magnesium. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2014**, 45, 551-554	2.3	13
164	Limits to the Stability of the Amorphous Nature of Polymer-Derived HfSiCNO Compounds. *Journal of the American Ceramic Society*, **2013**, 96, 2117-2123	3.8	13
163	A system level partitioning approach for analyzing the origins of variability in life prediction of tungsten filaments for incandescent lamps. *Materials & Design*, **1999**, 21, 9-18		13
162	Ultrahigh vacuum chemical vapor deposition of rhodium thin films on clean and TiO2-covered Si(111). *Thin Solid Films*, **1992**, 208, 172-176	2.2	13
161	Dynamic effects on flow and fracture during isothermal forging of a titanium alloy. *Scripta Metallurgica*, **1980**, 14, 241-246		13
160	Limiting Densities for Dense Random Packing of Spheres. *Journal of the American Ceramic Society*, **1982**, 65, C-19-C-21	3.8	13
159	Dynamic Roughness Ratio-Based Framework for Modeling Mixed Mode of Droplet Evaporation. *Langmuir*, **2017**, 33, 7191-7201	4	12
158	Aqueous ionic liquid solutions for boiling heat transfer enhancement in the absence of buoyancy induced bubble departure. *International Journal of Heat and Mass Transfer*, **2018**, 122, 354-363	4.9	12
157	Electric field-assisted ultrafast synthesis of nanopowders: a novel and cost-efficient approach. *RSC Advances*, **2016**, 6, 107208-107213	3.7	12
156	Flash sintering of Li-ion conducting ceramic in a few seconds at 850 °C. *Scripta Materialia*, **2019**, 172, 1-5	5.6	12
155	Liquid phase sintered Cu–h composite solders for thermal interface material and interconnect applications. *Journal of Materials Science*, **2011**, 46, 7012-7025	4.3	12
154	Carbon Nanotubes Welded by Precursor-Derived Silicoboron Carbonitride Ceramics: A TEM Study. *Physica Status Solidi A*, **2002**, 193, R13-R15		12
153	Investigation on the oxidation process of SiCO glasses by the means of non-Rutherford backscattering spectrometry. *Nuclear Instruments & Methods in Physics Research B*, **2003**, 211, 401-407	1.2	12
152	Microtensile superplasticity in ceramic fibers. *Acta Metallurgica Et Materialia*, **1991**, 39, 3125-3132		12
151	Liquid-Phase Bonding of Silicon Nitride Ceramics. *Journal of the American Ceramic Society*, **1987**, 70, C-105–C-107	3.8	12
150	Kinetics of Dissolution and Crystallization in a β-Spodumene Glass-Ceramic. *Journal of the American Ceramic Society*, **1981**, 64, 194-200	3.8	12
149	Diffusive relaxation of Li in particles of silicon oxycarbide measured by galvanostatic titrations. *Journal of Power Sources*, **2014**, 249, 219-230	8.9	11
148	Interfacially engineered liquid-phase-sintered Cu–h composite solders for thermal interface material applications. *Journal of Materials Science*, **2014**, 49, 7844-7854	4.3	11

147	A low-cost method for producing high-performance nanocomposite thin-films made from silica and CNTs on cellulose substrates. *Journal of Materials Science*, **2008**, 43, 4862-4869	4.3	11
146	Ion exchange at a metal□eramic interface. *Acta Materialia*, **2002**, 50, 1165-1176	8.4	11
145	Model for interface reaction control in superplastic deformation of non-stoichiometric ceramics. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **1993**, 166, 89-95	5.3	11
144	Effect of Diamond Dispersion on the Superplastic Rheology of Zinc Sulfide. *Journal of the American Ceramic Society*, **1990**, 73, 2213-2216	3.8	11
143	Thin films of transition metals on oxides. *Acta Metallurgica Et Materialia*, **1991**, 39, 3187-3191		11
142	A Theoretical Estimate of Solution-Precipitation Creep in MgO-Fluxed Si3N4. *Journal of the American Ceramic Society*, **1982**, 65, c88-c90	3.8	11
141	Flash sintering: A new frontier in defect physics and materials science. *MRS Bulletin*, **2021**, 46, 36-43	3.2	11
140	Stress□upture measurements of cast magnesium strengthened by in-situ production of ceramic particles. *Journal of Magnesium and Alloys*, **2017**, 5, 225-230	8.8	10
139	Surface-active ionic liquids as potential additive for pool boiling based energy systems. *Journal of Molecular Liquids*, **2019**, 287, 110953	6	10
138	Experimental characterization and modeling of critical heat flux with subcooled foaming solution. *International Journal of Thermal Sciences*, **2019**, 141, 199-210	4.1	10
137	SiOCN Functionalized Carbon Nanotube Gas Sensors for Elevated Temperature Applications. *Journal of the American Ceramic Society*, **2015**, 98, 1142-1149	3.8	10
136	The Change of X-ray Diffraction Peak Width During in situ Conventional Sintering of Nanoscale Powders. *Journal of the American Ceramic Society*, **2016**, 99, 765-768	3.8	10
135	The role of non-stoichiometric defects in radiation damage evolution of SrTiO3. *Journal of Materials Chemistry A*, **2013**, 1, 9235	13	10
134	Diffusion reactions at Al□MgAl2O4 interfaces□nd the effect of applied electric fields. *Journal of Materials Science*, **2006**, 41, 7785-7797	4.3	10
133	An Interdisciplinary Framework for the Design and Life Prediction of Engineering Systems. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2000**, 122, 348-354	1.8	10
132	Nanostructure and chemistry of a (100)MgO/(100)GaAs interface. *Applied Physics Letters*, **1994**, 65, 564-566	3.4	10
131	Effect of foamability on pool boiling critical heat flux with nanofluids. *Soft Matter*, **2019**, 15, 5308-5318	3.6	9
130	Additive Manufacturing of SiCN Ceramic Matrix for SiC Fiber Composites by Flash Pyrolysis of Nanoscale Polymer Films. *Journal of the American Ceramic Society*, **2016**, 99, 1855-1858	3.8	9

129	Ab inito and FTIR Studies of HfSiCNO Processed from the Polymer Route. *Journal of the American Ceramic Society*, **2014**, 97, 742-749	3.8	9
128	Transient Viscous Flow During the Evolution of a Ceramic (Silicon Carbonitride) from a Polymer (Polysilazane). *Journal of the American Ceramic Society*, **2010**, 93, 2567-2570	3.8	9
127	Combined effect of inlet restrictor and nanostructure on two-phase flow performance of parallel microchannel heat sinks. *International Journal of Thermal Sciences*, **2020**, 153, 106339	4.1	9
126	Spline Based Shape Prediction and Analysis of Uniformly Rotating Sessile and Pendant Droplets. *Langmuir*, **2017**, 33, 5603-5612	4	8
125	Oxidation, mechanical and thermal properties of hafnia–silicon carbide nanocomposites. *Journal of the European Ceramic Society*, **2014**, 34, 1783-1790	6	8
124	Extreme-rate capable and highly stable SiCO-TiO2 hybrids for Li ion battery anodes. *Chemical Communications*, **2013**, 49, 9657-9	5.8	8
123	Boiling in variable gravity under the action of an electric field: results of parabolic flight experiments. *Journal of Physics: Conference Series*, **2011**, 327, 012039	0.3	8
122	Thermodynamic Analysis of Grain Aspect Ratio in Fibrous Microstructures of Silicon Nitride. *Journal of the American Ceramic Society*, **2005**, 80, 3250-3252	3.8	8
121	Influence of grain size variability on the strain rate dependence of the stress exponent in mixed-mode power law and diffusional creep. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2005**, 36, 2913-2919	2.3	8
120	Determination of fracture toughness and bridging tractions from crack-opening displacement measurements in particulate composites of diamond in zinc sulfide. *Acta Metallurgica Et Materialia*, **1994**, 42, 65-75		8
119	Shear deformation and compaction of nickel aluminide powders at elevated temperatures. *Acta Metallurgica*, **1988**, 36, 1929-1939		8
118	Unique precursor delivery and control afforded by low-pressure pulsed-CVD process with ultrasonic atomization. *European Physical Journal Special Topics*, **2001**, 11, Pr3-1161-Pr3-1168		8
117	Bubble Nucleation During Oxidation of SiC. *Journal of the American Ceramic Society*, **2015**, 98, 2579-2586	3.8	7
116	Hotspot Thermal Management via Thin-Film Evaporation—Part I: Experimental Characterization. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2018**, 8, 88-98	1.7	7
115	A Phenomenological Model (and Experiments) for Liquid Phase Sintering. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2007**, 38, 628-637	2.3	7
114	Solid Yttria-Stabilized Zirconia Films by Pulsed Chemical Vapor Deposition from Metal-organic Precursors. *Journal of the American Ceramic Society*, **2004**, 85, 2873-2875	3.8	7
113	Creep fracture experiments with planar sapphire?copper interfaces stressed in tension. *Acta Metallurgica Et Materialia*, **1992**, 40, 615-624		7
112	Nucleation of Flocs in Dilute Colloidal Suspensions. *Journal of the American Ceramic Society*, **1989**, 72, 2148-2153	3.8	7

111	Superplastic deformation of an ultrafine grained intermetallic alloy prepared by crystallization of a metallic glass. *Acta Metallurgica*, **1984**, 32, 1553-1560		7
110	On the onset of fracture as a silicon-based polymer converts into the ceramic phase. *Journal of the American Ceramic Society*, **2019**, 102, 924-929	3.8	7
109	Flash sintering of ceramic films: The influence of surface to volume ratio. *Journal of the American Ceramic Society*, **2019**, 102, 3063-3069	3.8	7
108	Influence of flash sintering on phase transformation and conductivity of hydroxyapatite. *Ceramics International*, **2021**, 47, 9125-9131	5.1	7
107	Superplastic Flow in Ceramics Enhanced by a Liquid Phase **1984**, 353-378		7
106	Flash transition as a possible origin for low open circuit voltage in thin film solid oxide fuel cells. *Journal of Power Sources*, **2017**, 359, 48-51	8.9	6
105	In-situ acoustic detection of critical heat flux for controlling thermal runaway in boiling systems. *International Journal of Heat and Mass Transfer*, **2019**, 138, 135-143	4.9	6
104	Droplets on Lubricant-Infused Surfaces: Combination of Constant Mean Curvature Interfaces with Neumann Triangle Boundary Conditions. *Langmuir*, **2020**, 36, 2974-2983	4	6
103	Selection of TiN as the Interconnect Material for Measuring the Electrical Conductivity of Polymer-Derived SiCN at High Temperatures. *Journal of the American Ceramic Society*, **2007**, 90, 295-297	3.8	6
102	Control of the Microstructure of Alumina/Zirconia Alloys Starting from Inorganic Salts. *Journal of the American Ceramic Society*, **1991**, 74, 1707-1709	3.8	6
101	Suppression of Frothing by Silicon Addition During Oxynitride Glass Synthesis. *Journal of the American Ceramic Society*, **1985**, 68, C-168-C-170	3.8	6
100	Effect of Silicon Activity on Liquid-Phase Sintering of Nitrogen Ceramics. *Journal of the American Ceramic Society*, **1985**, 68, C-124-C-126	3.8	6
99	Equations for diffusional creep under multiaxial stress states. *Scripta Metallurgica*, **1981**, 15, 273-274		6
98	Correlations between cavitation, creep and dilation for multiaxial loading. *Acta Metallurgica*, **1983**, 31, 29-36		6
97	An ingenious fluidic capacitor for complete suppression of thermal fluctuations in two-phase microchannel heat sinks. *International Communications in Heat and Mass Transfer*, **2020**, 110, 104347	5.8	6
96	Development of a processing map for safe flash sintering of gadolinium-doped ceria. *Journal of the American Ceramic Society*, **2021**, 104, 4316-4328	3.8	6
95	Three-dimensional architecture of lithium-anodes made from graphite fibers coated with thin-films of silicon oxycarbide: Design, performance and manufacturability. *Journal of Power Sources*, **2016**, 310, 18-25	8.9	6
94	Stack Pressure and Critical Current Density in Li-metal Cells: The Role of Mechanical Deformation. *Acta Materialia*, **2021**, 215, 117076	8.4	6

93	Evaluation of high temperature resistance of white SiOC(H) ceramics in an inert atmosphere. *Journal of Non-Crystalline Solids*, **2015**, 410, 106-111	3.9	5
92	Chemical Potential-Based Analysis for the Oxidation Kinetics of Si and SiC Single Crystals. *Journal of the American Ceramic Society*, **2013**, 96, 2926-2934	3.8	5
91	Porous Al2O3-Spinel Based Polycrystals That Resist Free-Sintering. *Journal of the American Ceramic Society*, **2008**, 91, 3451-3454	3.8	5
90	Growth of epitaxial lithium tantalate on sapphire by chemical beam epitaxy from lithium hexaethoxy-tantalate. *Ferroelectrics*, **1994**, 152, 7-12	0.6	5
89	Ultra-high vacuum metalorganic chemical vapor deposition of GaAs thin films onto Si(100) using a single-source precursor. *Thin Solid Films*, **1991**, 205, 236-240	2.2	5
88	Grain Growth in Superplastically Deformed Zinc Sulfide/Diamond Composites. *Journal of the American Ceramic Society*, **1991**, 74, 1729-1731	3.8	5
87	Scalable macroscale wettability patterns for pool boiling heat transfer enhancement. *Heat and Mass Transfer*, **2020**, 56, 989-1000	2.2	5
86	Phase evolution during reactive flash sintering of Li6.25Al0.25La3Zr2O12 starting from a chemically prepared powder. *Journal of the European Ceramic Society*, **2021**, 41, 4552-4557	6	5
85	AC electric field-induced softening of alkali silicate glasses. *Journal of the American Ceramic Society*, **2018**, 101, 2277-2286	3.8	4
84	Hotspot Thermal Management via Thin-Film Evaporation—Part II: Modeling. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2018**, 8, 99-112	1.7	4
83	Experiment and modeling of microstructured capillary wicks for thermal management of electronics **2013**,		4
82	Compression Creep of Alumina Containing Interfacial Silicon, Carbon, and Nitrogen, Derived from a Polysilazane Precursor. *Journal of the American Ceramic Society*, **2010**, 93, 954-958	3.8	4
81	Design and performance of a new type of Knudsen cell for chemical beam epitaxy using metal-organic precursors. *Vacuum*, **1997**, 48, 165-173	3.7	4
80	Mechanical Design for Accommodating Thermal Expansion Mismatch in Multilayer Coatings for Environmental Protection at Ultrahigh Temperatures. *Journal of the American Ceramic Society*, **2007**, 90, 170-176	3.8	4
79	A real time human–machine interface for an ultrahigh temperature MEMS sensor–igniter. *Sensors and Actuators A: Physical*, **2003**, 105, 23-30	3.9	4
78	Influence of Distributed Particle Size on the Determination of the Parabolic Rate Constant for Oxidation by the Powder Method. *Journal of the American Ceramic Society*, **2003**, 86, 351-353	3.8	4
77	Fabrication process for ultra high aspect ratio polysilazane-derived MEMS		4
76	Transmission electron microscopy study of microstructure and misfit dislocations in epitaxial LiTaO3 thin films grown on sapphire by a metalorganic chemical vapor deposition process. *Journal of Applied Physics*, **1996**, 79, 3675-3680	2.5	4

75	Flash-induced spreading of metals on zirconia. *Scripta Materialia*, **2020**, 176, 73-77	5.6	4
74	Current constriction of Li-ion transport across lithium metal□eramic electrolyte interface: Imaged with X-ray Tomography. *MRS Communications*, **2021**, 11, 283-287	2.7	4
73	Processing and properties of Bi0.98R0.02FeO3 (R□=□La, Sm, Y) ceramics flash sintered at ~650□C in . *Journal of the American Ceramic Society*, **2020**, 103, 136-144	3.8	4
72	Role of Shear in the Sintering of Composites **1986**, 27-39		4
71	Electric field-assisted flash sintering of Bi2/3Cu3Ti4O12 starting from a multi-phase precursor powder. *Journal of the European Ceramic Society*, **2020**, 40, 4004-4009	6	3
70	Design, fabrication, and performance evaluation of a novel orientation independent and wickless heat spreader. *International Journal of Heat and Mass Transfer*, **2020**, 153, 119572	4.9	3
69	Optimization of Biporous Micropillar Array for Enhanced Heat Transfer Performance **2015**,		3
68	Low-Wear High-Friction Behavior of Copper Matrix Composites Dispersed With an In Situ Polymer Derived Ceramic. *Journal of Tribology*, **2015**, 137,	1.8	3
67	A Langmuir-Kinetic Model for CVD Growth from Chemical Precursors. *Chemical Vapor Deposition*, **2013**, 19, 260-266		3
66	Novel liquid phase sintered solders with indium as minority phase for next generation thermal interface material applications **2008**,		3
65	Novel Liquid Phase Sintered Sn-In Solders with Tailorable Properties for Thermal Interface Material and Interconnect Applications **2007**,		3
64	Temperature-dependent variability in lifetime prediction of thermally activated systems. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2004**, 35, 1471-1476	2.3	3
63	Integration of Ceramics Research with the Development of a Microsystem. *Journal of the American Ceramic Society*, **2003**, 86, 1217-1219	3.8	3
62	The influence of micro structural scale on the creep resistance of high volume fraction ceramic-metal composites made from aluminum oxide and niobium. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1996**, 206, 128-137	5.3	3
61	A mechanistic basis for high strain rate superplasticity of aluminum based metal matrix composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **1996**, 212, 14-21	5.3	3
60	A mechanistic basis for high strain rate superplasticity of aluminum based metal matrix composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **1996**, 215, 1-8	5.3	3
59	A tungsten filament high temperature heater for thin film deposition. *Review of Scientific Instruments*, **1996**, 67, 3958-3960	1.7	3
58	Crystallization of the Nanophase in Silicon Nitrides **1994**, 201-216		3

57	Orientation control of KNbO3 thin films deposited by laser ablation on MgO (100) using SrTiO3 transition layers. *Ferroelectrics*, **1994**, 152, 55-60	0.6	3
56	The Influence of Grain Boundary Structure on Strain-Induced Grain Growth During Superplastic Deformation. *Materials Research Society Symposia Proceedings*, **1990**, 196, 21		3
55	Frenkel pairs cause elastic softening in zirconia: theory and experiments. *New Journal of Physics*, **2021**, 23, 053013	2.9	3
54	Nucleation of voids at Li-metal□eramic□lectrolyte interfaces. *MRS Communications*,1	2.7	3
53	The flash effect in electronic conductors: The case of amorphous carbon fibers. *Scripta Materialia*, **2020**, 179, 20-24	5.6	2
52	Hotspot thermal management via thin-film evaporation **2016**,		2
51	Can Die Configuration Influence Field-Assisted Sintering of Oxides in the SPS Process?. *Journal of the American Ceramic Society*, **2013**, 96, 3697-3700	3.8	2
50	Grain Boundary Resistivity of Yttria-Stabilized Zirconia at 1400□C. *Journal of Ceramics*, **2013**, 2013, 1-4		2
49	Inverse Problems in Stochastic Modeling of Mixed-Mode Power-Law and Diffusional Creep for Distributed Grain Size. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2010**, 41, 308-317	2.3	2
48	Friction and Wear Behavior of Silicon Carbonitride Processed From the Polymer-Derived Ceramic Route **2005**, 473		2
47	Heteroepitaxial Growth Kinetics in a CVD Process Using Nickel Oxide on MgO as a Model System. *Journal of the American Ceramic Society*, **1996**, 79, 1019-1024	3.8	2
46	Phase Formation and Phase Stability in the Al-Ti Thin Film System. *Materials Research Society Symposia Proceedings*, **1990**, 213, 925		2
45	Influence of temperature and ASR on the critical current density in lithium-metal□eramic cells. *MRS Communications*, **2021**, 11, 483-488	2.7	2
44	Onset of Nucleate Boiling, Void Fraction, and Liquid Film Thickness **2016**, 5-90		2
43	Precipitous weakening of quartz at the □phase inversion. *Journal of the American Ceramic Society*, **2021**, 104, 23-26	3.8	2
42	Evaluation of Heat Stability of Si-O-C Fibers Derived from Polymethylsilsesquioxane. *Ceramic Transactions*,39-44	0.1	2
41	Predicting structural properties of amorphous silicon carbonitride by atomistic simulation. *International Journal of Materials and Structural Integrity*, **2016**, 10, 63	0.3	1
40	Design, fabrication, and performance evaluation of a novel biomass-gasification-based hot water generation system. *Energy*, **2019**, 185, 148-157	7.9	1

39	Dramatic influence of interface chemical potentials on the oxidation of silicon and carbon based compounds. *Journal of the European Ceramic Society*, **2014**, 34, 1035-1039	6	1
38	Synthesis and Tribological Behavior of Silicon Oiycarbonitride Thin Films Derived from Poly(Urea)Methyl Vinyl Silazane **2014**, 223-236		1
37	Thermocapillary convection during subcooled boiling in reduced gravity environments. *Annals of the New York Academy of Sciences*, **2009**, 1161, 173-81	6.5	1
36	Evaporation-Induced Cassie Droplets on Superhydrophilic Microstructured Surfaces **2012**,		1
35	In-situ X-ray diffraction study of phase transitions in epitaxial KNbO3 thin films. *Ferroelectrics*, **1997**, 200, 343-351	0.6	1
34	Domain Wall Pinning by Grain Boundaries During Electric Field Poling of KNbO3 Thin Films. *Materials Research Society Symposia Proceedings*, **1997**, 493, 75		1
33	Crystallization of a Liquid (or a Glass) Contained within a Nanotube. *Physica Status Solidi A*, **1998**, 166, 529-540		1
32	Fabrication of SiCN MEMS structures using microforged molds		1
31	Controlled Epitaxial Nucleation of Nickel Oxide on Microfabricated Magnesium Oxide Substrates in a CVD Process. *Journal of the American Ceramic Society*, **1996**, 79, 1025-1033	3.8	1
30	Electronic Structure and Bonding at Interfaces Between CVD Diamond and Silicon. *Materials Research Society Symposia Proceedings*, **1994**, 332, 163		1
29	In situ study of MgO on GaAs (001) for integrating thin film ferroelectrics with semiconductors. *Ferroelectrics*, **1994**, 157, 353-358	0.6	1
28	Superplastic Flow in Ceramic Microfiber Specimens. *Materials Research Society Symposia Proceedings*, **1991**, 239, 133		1
27	Reply to Comment on Analysis of the Sintering Pressure *Journal of the American Ceramic Society* , **1993**, 76, 1903-1903	3.8	1
26	Ion Induced Crystallization and Growth of Nanoscale Grains in Ceramics. *Materials Research Society Symposia Proceedings*, **1990**, 202, 633		1
25	The Design of the Interface Phase for Obtaining Thermal Shock Resistance in Silicon Nitride **1993**, 207-221		1
24	Thin coatings of hafnon abate oxidative recession of SiC fibers. *Journal of the American Ceramic Society*, **2021**, 104, 1210-1215	3.8	1
23	Tuneable chemistry at the interface and self-healing towards improving structural properties of carbon fiber laminates: a critical review. *Nanoscale Advances*,	5.1	1
22	On the Arrhenius-like behavior of conductivity during flash sintering of 3 mol% yttria stabilized zirconia ceramics. *Scripta Materialia*, **2021**, 203, 114093	5.6	1

21	Micro-Tubular Solid Oxide Fuel Cells with Embedded Current Collector. *Ceramic Engineering and Science Proceedings*,15-21	0.1	1
20	In-flash immersion-and-quench of yttria-stabilized zirconia into liquid nitrogen yields an electronic conductor. *Journal of the American Ceramic Society*, **2022**, 105, 1635	3.8	0
19	Flash sintering of yttria-stabilized zirconia powders coated with nanoscale films of alumina by atomic layer deposition. *Journal of the American Ceramic Society*, **2021**, 104, 2472-2482	3.8	0
18	On the catalytic effect of zirconia on flash sintering of alumina. *Journal of the American Ceramic Society*, **2022**, 105, 3746-3752	3.8	0
17	Reversible elastic deformation of functionalized sp2 carbon at pressures of up to 33 GPa. *Applied Physics Letters*, **2014**, 105, 141901	3.4	
16	Colossal anelasticity in polycrystals deforming under conditions of diffusional creep. *Acta Materialia*, **2010**, 58, 702-708	8.4	
15	Epitaxial Variants and Grain Boundary Structures in Heteroepitaxial Lithium Tantalate on Basal Sapphire. *Materials Research Society Symposia Proceedings*, **1996**, 441, 125		
14	Nucleation of Special Orientations During Heteroepitaxial Growth of Diamond on Silicon. *Materials Research Society Symposia Proceedings*, **1993**, 317, 517		
13	Deposition of Titanium Oxide Films from Metal-Organic Precursor by Electron Cyclotron Resonance Plasma-Assisted Chemical Vapor Deposition. *Materials Research Society Symposia Proceedings*, **1993**, 335, 117		
12	Measurement of the Interfacial Shear Strength of Thin Copper Films on Sapphire by Microindentation Experiments. *Materials Research Society Symposia Proceedings*, **1995**, 403, 151		
11	Characterizing Packing Geometry for Better Sintering. *Materials and Processing Report*, **1988**, 2, 8-9		
10	Nucleation of voids at second phase particles at lithium□eramic interface degrades cell performance. *MRS Communications*, **2021**, 11, 879	2.7	
9	Thermodynamics of Grain-Boundary Glass Crystallization **1983**, 337-337		
8	CREEP FRACTURE IN CERAMICS CONTAINING SMALL AMOUNTS OF A LIQUID PHASE **1983**, 145-160		
7	Enhancement of Tensile Ductility in Nanograin Superplastic Ceramics Through Control of Interface Chemistry **1992**, 238-247		
6	First Order Quasi-Phase-Matched Second-Harmonic Generation in LiTaO3 Utilizing a Periodic Domain Inversion Created by an External Stress. *Materials Research Society Symposia Proceedings*, **1993**, 329, 147		
5	Blue Light by Second Harmonic Generation in Epitaxial PbTiO3 Thin Film Waveguide. *Materials Research Society Symposia Proceedings*, **1993**, 329, 153		
4	Spline Based Modeling of Two-Dimensional Droplets on Rough and Heterogeneous Surfaces. *Lecture Notes in Mechanical Engineering*, **2017**, 1049-1058	0.4	

3	Generation of Ceramic Layers on Transition Metals via Reaction with SiCN-Precursors. *Ceramic Transactions*,73-79	0.1
2	Hafnia-silicon carbide nanocomposites II: Measurements of the residual stress. *Journal of the European Ceramic Society*, **2016**, 36, 937-942	6
1	Higher conductivity of non-stoichiometric lithium lanthanum zirconate ceramics made by reactive flash synthesis. *MRS Communications*,1	2.7