Nitin P Padture

List of Publications by Year in Descending Order

245 papers	20,220 citations	73 h-index	136 g-index
256 ext. papers	23,170 ext. citations	8.9 avg, IF	7.35 L-index

#	Paper	IF	Citations
245	Microstructures and Grain Boundaries of Halide Perovskite Thin Films **2022**, 81-105		
244	Rate-dependent deformation of amorphous sulfide glass electrolytes for solid-state batteries. *Cell Reports Physical Science*, **2022**, 100845	6.1	2
243	Time-resolved vibrational-pump visible-probe spectroscopy for thermal conductivity measurement of metal-halide perovskites. *Review of Scientific Instruments*, **2022**, 93, 053003	1.7	0
242	High-performance methylammonium-free ideal-band-gap perovskite solar cells. *Matter*, **2021**, 4, 1365-1376	12.7	23
241	On the multiplying factor for the estimation of the average grain size in thin films. *Scripta Materialia*, **2021**, 196, 113748	5.6	1
240	Real-Time Investigation of Sn(II) Oxidation in Pb-Free Halide Perovskites by X-ray Absorption and Mössbauer Spectroscopy. *ACS Applied Energy Materials*, **2021**, 4, 4327-4332	6.1	2
239	Interfacial toughening with self-assembled monolayers enhances perovskite solar cell reliability. *Science*, **2021**, 372, 618-622	33.3	101
238	Knowledge extraction and transfer in data-driven fracture mechanics. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	5
237	Crystallization behavior of air-plasma-sprayed ytterbium-silicate-based environmental barrier coatings. *Journal of the European Ceramic Society*, **2021**, 41, 3696-3705	6	5
236	Flexible perovskite solar cells with simultaneously improved efficiency, operational stability, and mechanical reliability. *Joule*, **2021**, 5, 1587-1601	27.8	45
235	The effect of atmosphere on the flash-sintering of nanoscale titania ceramics. *Scripta Materialia*, **2021**, 199, 113894	5.6	0
234	High-temperature interactions between Yttria-stabilized zirconia thermal barrier coatings and Na-Rich calcia-magnesia-aluminosilicate deposits. *Ceramics International*, **2021**, 47, 19505-19514	5.1	0
233	Low thermal conductivity in high-entropy rare-earth pyrosilicate solid-solutions for thermal environmental barrier coatings. *Scripta Materialia*, **2021**, 191, 40-45	5.6	14
232	Linking melem with conjugated Schiff-base bonds to boost photocatalytic efficiency of carbon nitride for overall water splitting. *Nanoscale*, **2021**, 13, 9315-9321	7.7	9
231	Correlations between Electrochemical Ion Migration and Anomalous Device Behaviors in Perovskite Solar Cells. *ACS Energy Letters*, **2021**, 6, 1003-1014	20.1	11
230	Interpenetrating interfaces for efficient perovskite solar cells with high operational stability and mechanical robustness. *Nature Communications*, **2021**, 12, 973	17.4	75
229	p-p orbital interaction via magnesium isovalent doping enhances optoelectronic properties of halide perovskites. *Chemical Communications*, **2020**, 56, 15639-15642	5.8	3

228	Mechanisms of exceptional grain growth and stability in formamidinium lead triiodide thin films for perovskite solar cells. *Acta Materialia*, **2020**, 193, 10-18	8.4	14
227	High-Performance Lead-Free Solar Cells Based on Tin-Halide Perovskite Thin Films Functionalized by a Divalent Organic Cation. *ACS Energy Letters*, **2020**, 5, 2223-2230	20.1	60
226	Electron-beam-induced cracking in organic-inorganic halide perovskite thin films. *Scripta Materialia*, **2020**, 187, 88-92	5.6	8
225	Rare-earth pyrosilicate solid-solution environmental-barrier coating ceramics for resistance against attack by molten calcia□magnesia□luminosilicate (CMAS) glass. *Journal of Materials Research*, **2020**, 35, 2373-2384	2.5	8
224	High-Toughness Inorganic Solid Electrolytes via the Use of Reduced Graphene Oxide. *Matter*, **2020**, 3, 212-229	12.7	16
223	Encapsulated X-Ray Detector Enabled by All-Inorganic Lead-Free Perovskite Film With High Sensitivity and Low Detection Limit. *IEEE Transactions on Electron Devices*, **2020**, 67, 3191-3198	2.9	15
222	High toughness carbon-nanotube-reinforced ceramics via ion-beam engineering of interfaces. *Carbon*, **2020**, 163, 169-177	10.4	15
221	A machine learning approach to fracture mechanics problems. *Acta Materialia*, **2020**, 190, 105-112	8.4	53
220	Anomalous 3D nanoscale photoconduction in hybrid perovskite semiconductors revealed by tomographic atomic force microscopy. *Nature Communications*, **2020**, 11, 3308	17.4	27
219	The Synergism of DMSO and Diethyl Ether for Highly Reproducible and Efficient MA0.5FA0.5PbI3 Perovskite Solar Cells. *Advanced Energy Materials*, **2020**, 10, 2001300	21.8	17
218	Facile healing of cracks in organic□norganic halide perovskite thin films. *Acta Materialia*, **2020**, 187, 112-121	8.4	27
217	Effect of Grain Size on the Fracture Behavior of Organic-Inorganic Halide Perovskite Thin Films for Solar Cells. *Scripta Materialia*, **2020**, 185, 47-50	5.6	18
216	Enhanced Thermoelectric Performance in Lead-Free Inorganic CsSn1□GexI3 Perovskite Semiconductors. *Journal of Physical Chemistry C*, **2020**, 124, 11749-11753	3.8	24
215	Asymmetric alkyl diamine based Dion□acobson low-dimensional perovskite solar cells with efficiency exceeding 15%. *Journal of Materials Chemistry A*, **2020**, 8, 9919-9926	13	28
214	Understanding and Engineering Grain Boundaries for High-Performance Halide Perovskite Photovoltaics **2020**,		1
213	Enhancing Chemical Stability and Suppressing Ion Migration in CH3NH3PbI3 Perovskite Solar Cells via Direct Backbone Attachment of Polyesters on Grain Boundaries. *Chemistry of Materials*, **2020**, 32, 5104-5117	9.6	37
212	transfer of CHNHPbI single crystals in mesoporous scaffolds for efficient perovskite solar cells. *Chemical Science*, **2020**, 11, 474-481	9.4	13
211	Sub-1.4eV bandgap inorganic perovskite solar cells with long-term stability. *Nature Communications*, **2020**, 11, 151	17.4	55

210	Fracture, fatigue, and sliding-wear behavior of nanocomposites of alumina and reduced graphene-oxide. *Acta Materialia*, **2020**, 186, 29-39	8.4	20
209	High-temperature materials for power generation in gas turbines **2020**, 3-62		5
208	Arrays of Plasmonic Nanostructures for Absorption Enhancement in Perovskite Thin Films. *Nanomaterials*, **2020**, 10,	5.4	7
207	Sea-salt-induced moderate-temperature degradation of thermally-sprayed MCrAlY bond-coats. *Surface and Coatings Technology*, **2020**, 404, 126459	4.4	1
206	Perovskite Solar Cells with Enhanced Fill Factors Using Polymer-Capped Solvent Annealing. *ACS Applied Energy Materials*, **2020**, 3, 7231-7238	6.1	7
205	Direct Characterization of Carrier Diffusion in Halide-Perovskite Thin Films Using Transient Photoluminescence Imaging. *ACS Photonics*, **2019**, 6, 2375-2380	6.3	10
204	Carrier lifetime enhancement in halide perovskite via remote epitaxy. *Nature Communications*, **2019** , 10, 4145	17.4	45
203	Comprehensive Elucidation of Ion Transport and Its Relation to Hysteresis in Methylammonium Lead Iodide Perovskite Thin Films. *Journal of Physical Chemistry C*, **2019**, 123, 4029-4034	3.8	11
202	Improved SnO2 Electron Transport Layers Solution-Deposited at Near Room Temperature for Rigid or Flexible Perovskite Solar Cells with High Efficiencies. *Advanced Energy Materials*, **2019**, 9, 1900834	21.8	67
201	Fusing Nanowires into Thin Films: Fabrication of Graded-Heterojunction Perovskite Solar Cells with Enhanced Performance. *Advanced Energy Materials*, **2019**, 9, 1900243	21.8	36
200	Environmental degradation of high-temperature protective coatings for ceramic-matrix composites in gas-turbine engines. *Npj Materials Degradation*, **2019**, 3,	5.7	36
199	Effect of Grain Boundaries on Charge Transport in Methylammonium Lead Iodide Perovskite Thin Films. *Journal of Physical Chemistry C*, **2019**, 123, 5321-5325	3.8	20
198	Quantum-Dot-Induced Cesium-Rich Surface Imparts Enhanced Stability to Formamidinium Lead Iodide Perovskite Solar Cells. *ACS Energy Letters*, **2019**, 4, 1970-1975	20.1	58
197	Highly stable and efficient all-inorganic lead-free perovskite solar cells with native-oxide passivation. *Nature Communications*, **2019**, 10, 16	17.4	283
196	Transmission Electron Microscopy of Halide Perovskite Materials and Devices. *Joule*, **2019**, 3, 641-661	27.8	63
195	Synthetic Approaches for Halide Perovskite Thin Films. *Chemical Reviews*, **2019**, 119, 3193-3295	68.1	293
194	Lead-Free Dion□acobson Tin Halide Perovskites for Photovoltaics. *ACS Energy Letters*, **2019**, 4, 276-277	20.1	73
193	Continuous Grain-Boundary Functionalization for High-Efficiency Perovskite Solar Cells with Exceptional Stability. *CheM*, **2018**, 4, 1404-1415	16.2	124

192	Direct in situ observation of toughening mechanisms in nanocomposites of silicon nitride and reduced graphene-oxide. *Scripta Materialia*, **2018**, 149, 40-43	5.6	23
191	Cesium Titanium(IV) Bromide Thin Films Based Stable Lead-free Perovskite Solar Cells. *Joule*, **2018**, 2, 558-570	27.8	260
190	Earth-Abundant Nontoxic Titanium(IV)-based Vacancy-Ordered Double Perovskite Halides with Tunable 1.0 to 1.8 eV Bandgaps for Photovoltaic Applications. *ACS Energy Letters*, **2018**, 3, 297-304	20.1	192
189	Thermo-mechanical behavior of organic-inorganic halide perovskites for solar cells. *Scripta Materialia*, **2018**, 150, 36-41	5.6	60
188	Environmental-barrier coating ceramics for resistance against attack by molten calcia-magnesia-aluminosilicate (CMAS) glass: Part I, YAlO3 and □Y2Si2O7. *Journal of the European Ceramic Society*, **2018**, 38, 3905-3913	6	34
187	Environmental-barrier coating ceramics for resistance against attack by molten calcia-magnesia-aluminosilicate (CMAS) glass: Part II, □Yb2Si2O7 and □Sc2Si2O7. *Journal of the European Ceramic Society*, **2018**, 38, 3914-3924	6	57
186	Perovskite Solar Cells: Stable Formamidinium-Based Perovskite Solar Cells via In Situ Grain Encapsulation (Adv. Energy Mater. 22/2018). *Advanced Energy Materials*, **2018**, 8, 1870101	21.8	1
185	Lewis-Adduct Mediated Grain-Boundary Functionalization for Efficient Ideal-Bandgap Perovskite Solar Cells with Superior Stability. *Advanced Energy Materials*, **2018**, 8, 1800997	21.8	63
184	Toward Eco-friendly and Stable Perovskite Materials for Photovoltaics. *Joule*, **2018**, 2, 1231-1241	27.8	126
183	Integration of a functionalized graphene nano-network into a planar perovskite absorber for high-efficiency large-area solar cells. *Materials Horizons*, **2018**, 5, 868-873	14.4	21
182	Exceptional Grain Growth in Formamidinium Lead Iodide Perovskite Thin Films Induced by the □to-□Phase Transformation. *ACS Energy Letters*, **2018**, 3, 63-64	20.1	29
181	Bandgap Optimization of Perovskite Semiconductors for Photovoltaic Applications. *Chemistry - A European Journal*, **2018**, 24, 2305-2316	4.8	76
180	Materials in the Aircraft Industry **2018**, 271-346		1
179	Subgrain Special Boundaries in Halide Perovskite Thin Films Restrict Carrier Diffusion. *ACS Energy Letters*, **2018**, 3, 2669-2670	20.1	52
178	Towards multifunctional thermal environmental barrier coatings (TEBCs) based on rare-earth pyrosilicate solid-solution ceramics. *Scripta Materialia*, **2018**, 154, 111-117	5.6	53
177	Stable Formamidinium-Based Perovskite Solar Cells via In Situ Grain Encapsulation. *Advanced Energy Materials*, **2018**, 8, 1800232	21.8	59
176	In situ direct observation of toughening in isotropic nanocomposites of alumina ceramic and multiwall carbon nanotubes. *Acta Materialia*, **2017**, 127, 203-210	8.4	32
175	Progress in Tandem Solar Cells Based on Hybrid Organic□horganic Perovskites. *Advanced Energy Materials*, **2017**, 7, 1602400	21.8	101

174	The role of ceramic and glass science research in meeting societal challenges: Report from an NSF-sponsored workshop. *Journal of the American Ceramic Society*, **2017**, 100, 1777-1803	3.8	17
173	Resistance of 2ZrO2–Y2O3 top coat in thermal/environmental barrier coatings to calcia-magnesia-aluminosilicate attack at 1500°C. *Journal of the American Ceramic Society*, **2017**, 100, 3175-3187	3.8	25
172	Methylammonium-Mediated Evolution of Mixed-Organic-Cation Perovskite Thin Films: A Dynamic Composition-Tuning Process. *Angewandte Chemie*, **2017**, 129, 7782-7786	3.6	12
171	Methylammonium-Mediated Evolution of Mixed-Organic-Cation Perovskite Thin Films: A Dynamic Composition-Tuning Process. *Angewandte Chemie - International Edition*, **2017**, 56, 7674-7678	16.4	53
170	Fabrication of compact and stable perovskite films with optimized precursor composition in the fast-growing procedure. *Science China Materials*, **2017**, 60, 608-616	7.1	11
169	Inhomogeneous oxidation of ZrB 2 -SiC ultra-high-temperature ceramic particulate composites and its mitigation. *Acta Materialia*, **2017**, 129, 138-148	8.4	38
168	Ions Matter: Description of the Anomalous Electronic Behavior in Methylammonium Lead Halide Perovskite Devices. *Advanced Functional Materials*, **2017**, 27, 1606584	15.6	49
167	High-Performance Formamidinium-Based Perovskite Solar Cells via Microstructure-Mediated δ-to-α Phase Transformation. *Chemistry of Materials*, **2017**, 29, 3246-3250	9.6	79
166	Long Minority-Carrier Diffusion Length and Low Surface-Recombination Velocity in Inorganic Lead-Free CsSnI3 Perovskite Crystal for Solar Cells. *Advanced Functional Materials*, **2017**, 27, 1604818	15.6	124
165	Gas-Induced Formation/Transformation of Organic–Inorganic Halide Perovskites. *ACS Energy Letters*, **2017**, 2, 2166-2176	20.1	45
164	Rücktitelbild: Homogenous Alloys of Formamidinium Lead Triiodide and Cesium Tin Triiodide for Efficient Ideal-Bandgap Perovskite Solar Cells (Angew. Chem. 41/2017). *Angewandte Chemie*, **2017**, 129, 12966-12966	3.6	
163	Homogenous Alloys of Formamidinium Lead Triiodide and Cesium Tin Triiodide for Efficient Ideal-Bandgap Perovskite Solar Cells. *Angewandte Chemie - International Edition*, **2017**, 56, 12658-12662	16.4	56
162	Homogenous Alloys of Formamidinium Lead Triiodide and Cesium Tin Triiodide for Efficient Ideal-Bandgap Perovskite Solar Cells. *Angewandte Chemie*, **2017**, 129, 12832-12836	3.6	3
161	Simultaneous Evolution of Uniaxially Oriented Grains and Ultralow-Density Grain-Boundary Network in CH3NH3PbI3 Perovskite Thin Films Mediated by Precursor Phase Metastability. *ACS Energy Letters*, **2017**, 2, 2727-2733	20.1	63
160	Interaction between ceramic powder and molten calcia-magnesia-alumino-silicate (CMAS) glass, and its implication on CMAS-resistant thermal barrier coatings. *Scripta Materialia*, **2016**, 112, 118-122	5.6	40
159	Heterojunction-Depleted Lead-Free Perovskite Solar Cells with Coarse-Grained B-γ-CsSnI3 Thin Films. *Advanced Energy Materials*, **2016**, 6, 1601130	21.8	162
158	Advanced structural ceramics in aerospace propulsion. *Nature Materials*, **2016**, 15, 804-9	27	633
157	Lithium-ion battery electrolyte mobility at nano-confined graphene interfaces. *Nature Communications*, **2016**, 7, 12693	17.4	18

156	Doping and alloying for improved perovskite solar cells. *Journal of Materials Chemistry A*, **2016**, 4, 17623-17635	10	126
155	Thin-Film Transformation of NH PbI to CH NH PbI Perovskite: A Methylamine-Induced Conversion-Healing Process. *Angewandte Chemie - International Edition*, **2016**, 55, 14723-14727	16.4	74
154	Thin-Film Transformation of NH4PbI3 to CH3NH3PbI3 Perovskite: A Methylamine-Induced Conversion-Healing Process. *Angewandte Chemie*, **2016**, 128, 14943-14947	3.6	15
153	Challenges in the ambient Raman spectroscopy characterization of methylammonium lead triiodide perovskite thin films. *Frontiers of Optoelectronics*, **2016**, 9, 81-86	2.8	20
152	Calcia-magnesia-alumino-silicate (CMAS)-induced degradation and failure of air plasma sprayed yttria-stabilized zirconia thermal barrier coatings. *Acta Materialia*, **2016**, 105, 355-366	8.4	118
151	Transformative Evolution of Organolead Triiodide Perovskite Thin Films from Strong Room-Temperature Solid-Gas Interaction between HPbI3-CH3NH2 Precursor Pair. *Journal of the American Chemical Society*, **2016**, 138, 750-3	16.4	141
150	Hybrid Perovskite Quantum Nanostructures Synthesized by Electrospray Antisolvent-Solvent Extraction and Intercalation. *ACS Applied Materials & Interfaces*, **2016**, 8, 854-61	9.5	44
149	Manipulating Crystallization of Organolead Mixed-Halide Thin Films in Antisolvent Baths for Wide-Bandgap Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2016**, 8, 2232-7	9.5	72
148	Intercalation crystallization of phase-pure □HC(NH)□PbI□ upon microstructurally engineered PbI□ thin films for planar perovskite solar cells. *Nanoscale*, **2016**, 8, 6265-70	7.7	33
147	Exceptional Morphology-Preserving Evolution of Formamidinium Lead Triiodide Perovskite Thin Films via Organic-Cation Displacement. *Journal of the American Chemical Society*, **2016**, 138, 5535-8	16.4	153
146	Observation of phase-retention behavior of the HC(NH2)2PbI3 black perovskite polymorph upon mesoporous TiO2 scaffolds. *Chemical Communications*, **2016**, 52, 7273-5	5.8	37
145	Mapping the Photoresponse of CH3NH3PbI3 Hybrid Perovskite Thin Films at the Nanoscale. *Nano Letters*, **2016**, 16, 3434-41	11.5	101
144	Growth control of compact CH3NH3PbI3 thin films via enhanced solid-state precursor reaction for efficient planar perovskite solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 9249-9256	13	118
143	Room-temperature crystallization of hybrid-perovskite thin films via solvent–solvent extraction for high-performance solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 8178-8184	13	336
142	Heterojunction metal-oxide-metal Au-Fe3O4-Au single nanowire device for spintronics. *Journal of Applied Physics*, **2015**, 117, 17D710	2.5	5
141	Carrier separation and transport in perovskite solar cells studied by nanometre-scale profiling of electrical potential. *Nature Communications*, **2015**, 6, 8397	17.4	172
140	Additive-Modulated Evolution of HC(NH2)2PbI3 Black Polymorph for Mesoscopic Perovskite Solar Cells. *Chemistry of Materials*, **2015**, 27, 7149-7155	9.6	164
139	Magnetoresistance characteristics in individual Fe3O4 single crystal nanowire. *Journal of Applied Physics*, **2015**, 117, 17E115	2.5	7

138	Square-Centimeter Solution-Processed Planar CH3NH3PbI3 Perovskite Solar Cells with Efficiency Exceeding 15. *Advanced Materials*, **2015**, 27, 6363-70	24	272
137	Methylamine-Gas-Induced Defect-Healing Behavior of CH3NH3PbI3 Thin Films for Perovskite Solar Cells. *Angewandte Chemie - International Edition*, **2015**, 54, 9705-9	16.4	326
136	Methylamine-Gas-Induced Defect-Healing Behavior of CH3NH3PbI3 Thin Films for Perovskite Solar Cells. *Angewandte Chemie*, **2015**, 127, 9841-9845	3.6	35
135	The Compelling Case for Indentation as a Functional Exploratory and Characterization Tool. *Journal of the American Ceramic Society*, **2015**, 98, 2671-2680	3.8	58
134	Crystal Morphologies of Organolead Trihalide in Mesoscopic/Planar Perovskite Solar Cells. *Journal of Physical Chemistry Letters*, **2015**, 6, 2292-7	6.4	85
133	Microstructures of Organometal Trihalide Perovskites for Solar Cells: Their Evolution from Solutions and Characterization. *Journal of Physical Chemistry Letters*, **2015**, 6, 4827-39	6.4	283
132	High-temperature creep deformation of coarse-grained boron carbide ceramics. *Journal of the European Ceramic Society*, **2015**, 35, 1423-1429	6	32
131	In situ Raman spectroscopy studies of high-temperature degradation of thermal barrier coatings by molten silicate deposits. *Scripta Materialia*, **2014**, 76, 29-32	5.6	44
130	CMAS-Resistant Plasma Sprayed Thermal Barrier Coatings Based on Y2O3-Stabilized ZrO2 with Al3+ and Ti4+ Solute Additions. *Journal of Thermal Spray Technology*, **2014**, 23, 708-715	2.5	18
129	Direct Observation of Ferroelectric Domains in Solution-Processed CH3NH3PbI3 Perovskite Thin Films. *Journal of Physical Chemistry Letters*, **2014**, 5, 3335-9	6.4	367
128	One-step, solution-processed formamidinium lead trihalide (FAPbI(3-x)Cl(x)) for mesoscopic perovskite-polymer solar cells. *Physical Chemistry Chemical Physics*, **2014**, 16, 19206-11	3.6	113
127	Vapour-based processing of hole-conductor-free CH3NH3PbI3 perovskite/C60 fullerene planar solar cells. *RSC Advances*, **2014**, 4, 28964-28967	3.7	113
126	2ZrO2•Y2O3 Thermal Barrier Coatings Resistant to Degradation by Molten CMAS: Part I, Optical Basicity Considerations and Processing. *Journal of the American Ceramic Society*, **2014**, 97, 3943-3949	3.8	73
125	2ZrO2•Y2O3 Thermal Barrier Coatings Resistant to Degradation by Molten CMAS: Part II, Interactions with Sand and Fly Ash. *Journal of the American Ceramic Society*, **2014**, 97, 3950-3957	3.8	58
124	Room temperature one-pot solution synthesis of nanoscale CsSnI3 orthorhombic perovskite thin films and particles. *Materials Letters*, **2013**, 110, 127-129	3.3	44
123	Ohmic contact formation between metal and AlGaN/GaN heterostructure via graphene insertion. *Applied Physics Letters*, **2013**, 102, 153501	3.4	23
122	Coal Ash Deposition on Nozzle Guide Vanes: Part I: Experimental Characteristics of Four Coal Ash Types. *Journal of Turbomachinery*, **2013**, 135,	1.8	24
121	Defect states and disorder in charge transport in semiconductor nanowires. *Journal of Applied Physics*, **2013**, 114, 043711	2.5	8

120	Plasma sprayed gadolinium zirconate thermal barrier coatings that are resistant to damage by molten CaMgAlSilicate glass. *Surface and Coatings Technology*, **2012**, 206, 3911-3916	4.4	86
119	Microstructural effects on the sliding wear of transparent magnesium-aluminate spinel. *Journal of the European Ceramic Society*, **2012**, 32, 3143-3149	6	22
118	Thermal-barrier coatings for more efficient gas-turbine engines. *MRS Bulletin*, **2012**, 37, 891-898	3.2	736
117	Composition effects of thermal barrier coating ceramics on their interaction with molten CaMgAlSilicate (CMAS) glass. *Acta Materialia*, **2012**, 60, 5437-5447	8.4	149
116	Site-specific stamping of graphene micro-patterns over large areas using flexible stamps. *Nanotechnology*, **2012**, 23, 235603	3.4	2
115	Strengthening of transparent spinel/Si3N4 nanocomposites. *Acta Materialia*, **2012**, 60, 1570-1575	8.4	27
114	Nanostructured, Infrared-Transparent Magnesium-Aluminate Spinel with Superior Mechanical Properties. *International Journal of Applied Ceramic Technology*, **2012**, 9, 83-90	2	24
113	Jet engine coatings for resisting volcanic ash damage. *Advanced Materials*, **2011**, 23, 2419-24	24	164
112	Jet Engine Coatings: Jet Engine Coatings for Resisting Volcanic Ash Damage (Adv. Mater. 21/2011). *Advanced Materials*, **2011**, 23, 2388-2388	24	5
111	Mitigation of damage from molten fly ash to air-plasma-sprayed thermal barrier coatings. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 7214-7221	5.3	89
110	Effect of MoSi2 content on the lubricated sliding-wear resistance of ZrCMoSi2 composites. *Journal of the European Ceramic Society*, **2011**, 31, 877-882	6	22
109	High quality, transferrable graphene grown on single crystal Cu(111) thin films on basal-plane sapphire. *Applied Physics Letters*, **2011**, 98, 113117	3.4	103
108	Comprehensive control of optical polarization anisotropy in semiconducting nanowires. *Applied Physics Letters*, **2011**, 99, 141101	3.4	8
107	Chronic fine particulate matter exposure induces systemic vascular dysfunction via NADPH oxidase and TLR4 pathways. *Circulation Research*, **2011**, 108, 716-26	15.7	217
106	Microstructural Effects on the Creep Deformation of Alumina/Single-Wall Carbon Nanotubes Composites. *Journal of the American Ceramic Society*, **2010**, 93, 2042	3.8	17
105	Chemically synthesized metal-oxide-metal segmented nanowires with high ferroelectric response. *Nanotechnology*, **2010**, 21, 335601	3.4	2
104	Air-plasma-sprayed thermal barrier coatings that are resistant to high-temperature attack by glassy deposits. *Acta Materialia*, **2010**, 58, 6835-6844	8.4	131
103	Thermal-gradient testing of thermal barrier coatings under simultaneous attack by molten glassy deposits and its mitigation. *Surface and Coatings Technology*, **2010**, 204, 2683-2688	4.4	57

102	Bipolar resistive switching in individual Au□NiO□Au segmented nanowires. *Applied Physics Letters*, **2009**, 95, 203505	3.4	41
101	Toward Site-Specific Stamping of Graphene. *Advanced Materials*, **2009**, 21, 1243-1246	24	74
100	High-temperature mechanical behavior of Al2O3/graphite composites. *Journal of the European Ceramic Society*, **2009**, 29, 3205-3209	6	5
99	Comment on □Effect of sintering temperature on a single-wall carbon nanotube-toughened alumina-based composite□ *Scripta Materialia*, **2008**, 58, 989-990	5.6	38
98	Low-temperature gas sensing in individual metal□oxide□metal heterojunction nanowires. *Journal of Materials Research*, **2008**, 23, 2047-2052	2.5	13
97	Creep-resistant composites of alumina and single-wall carbon nanotubes. *Applied Physics Letters*, **2008**, 92, 111912	3.4	34
96	Thermal Barrier Coatings Made by the Solution Precursor Plasma Spray Process. *Journal of Thermal Spray Technology*, **2008**, 17, 124-135	2.5	122
95	Mechanical properties of solution-precursor plasma-sprayed thermal barrier coatings. *Surface and Coatings Technology*, **2008**, 202, 4976-4979	4.4	23
94	. *IEEE Nanotechnology Magazine*, **2007**, 6, 676-681	2.6	14
93	Template-based, near-ambient synthesis of crystalline metal-oxide nanotubes, nanowires and coaxial nanotubes. *Acta Materialia*, **2007**, 55, 3007-3014	8.4	36
92	Novel thermal barrier coatings that are resistant to high-temperature attack by glassy deposits. *Acta Materialia*, **2007**, 55, 6734-6745	8.4	195
91	Improved processing and oxidation-resistance of ZrB2 ultra-high temperature ceramics containing SiC nanodispersoids. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 464, 216-224	5.3	170
90	Effect of liquid-phase content on the contact-mechanical properties of liquid-phase-sintered □SiC. *Journal of the European Ceramic Society*, **2007**, 27, 2521-2527	6	42
89	Microstructural design of sliding-wear-resistant liquid-phase-sintered SiC: An overview. *Journal of the European Ceramic Society*, **2007**, 27, 3351-3357	6	63
88	Sliding-Wear-Resistant Liquid-Phase-Sintered SiC Processed Using □SiC Starting Powders. *Journal of the American Ceramic Society*, **2007**, 90, 541-545	3.8	55
87	Template-Directed, Near-Ambient Synthesis of Au□TiO2□Au Heterojunction Nanowires Mediated by Self-Assembled Monolayers (SAMs). *Materials Letters*, **2007**, 61, 182-185	3.3	15
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