Mark Hoffman

List of Publications by Year
in descending order

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207	6,265	57631	110170
papers	citations	44 h-index	64 g-index

215	215	215	5155
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Free vibration analysis of layered functionally graded beams with experimental validation. Materials & Design, 2012, 36, 182-190.	5.1	226
2	Direct measurement of the domain switching contribution to the dynamic piezoelectric response in ferroelectric ceramics. Applied Physics Letters, 2006, 89, 092901.	1.5	162
3	Electric-field-induced strain mechanisms in lead-free 94%(Bi1/2Na1/2)TiO3â€“6%BaTiO3. Applied Physics Letters, 2011, 98, .	1.5	143
4	A Highâ€Temperatureâ€Capacitor Dielectric Based on <scp><scp>K</scp></scp>_{0.5}<scp><scp>Na</scp></scp>_{0.5}<scp><scp>NbO</scp></scp>₃â€“<scp><scp>Bi</scp></scp>_{1/2}<scp><scp>Na</scp></scp>_{1/2}<scp><scp>TiO</scp></scp>₃â€“ Journal of the American Ceramic Society, 2012, 95, 3519-3524.	1.9	121
5	Nanocomposite Tiâ€“Siâ€“N, Zrâ€“Siâ€“N, Tiâ€“Alâ€“Siâ€“N, Tiâ€“Alâ€“Vâ€“Siâ€“N thin film coatings deposited by vacuum arc deposition. Surface and Coatings Technology, 2005, 200, 2228-2235.	2.2	117
6	Electric Fatigue of Leadâ€Free Piezoelectric Materials. Journal of the American Ceramic Society, 2014, 97, 665-680.	1.9	111
7	Effect of Grain Size on Mechanical Properties of Submicrometer 3Yâ€TZP: Fracture Strength and Hydrothermal Degradation. Journal of the American Ceramic Society, 2007, 90, 2830-2836.	1.9	106
8	Saturated domain switching textures and strains in ferroelastic ceramics. Journal of Applied Physics, 2005, 98, 024115.	1.1	104
9	Crack propagation in graded composites. Composites Science and Technology, 2005, 65, 201-220.	3.8	103
10	Mechanical behaviour and energy absorption of closed-cell aluminium foam panels in uniaxial compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 517, 37-45.	2.6	99
11	Recent advances in understanding the fatigue and wear behavior of dental composites and ceramics. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 88, 504-533.	1.5	94
12	Interplay of strain mechanisms in morphotropic piezoceramics. Acta Materialia, 2015, 94, 319-327.	3.8	84
13	Deformation mechanisms of TiN multilayer coatings alternated by ductile or stiff interlayers. Acta Materialia, 2008, 56, 852-861.	3.8	83
14	Bipolar and Unipolar Fatigue of Ferroelectric BNTâ€Based Leadâ€Free Piezoceramics. Journal of the American Ceramic Society, 2011, 94, 529-535.	1.9	83
15	Effect of Ferroelectric Longâ€Range Order on the Unipolar and Bipolar Electric Fatigue in <scp>Bi_{1/2}Na_{1/2}TiO₃</scp>â€Based Leadâ€Free Piezoceramics. Journal of the American Ceramic Society, 2011, 94, 3927-3933.	1.9	82
16	Contact damage evolution in a diamond-like carbon (DLC) coating on a stainless steel substrate. Thin Solid Films, 2007, 515, 3196-3201.	0.8	77
17	Thermal expansion behavior and macrostrain of Al2O3/Al composites with interpenetrating networks. Acta Materialia, 1998, 46, 2493-2499.	3.8	76
18	Microstructural effects on indentation failure mechanisms in TiN coatings: Finite element simulations. Acta Materialia, 2007, 55, 2489-2501.	3.8	74

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19	Geometrically necessary dislocations favor the Taylor uniform deformation mode in ultra-fine-grained polycrystals. Acta Materialia, 2016, 117, 35-42.	3.8	74
20	On the structureâ€“property relationship of sound and hypomineralized enamel. Acta Biomaterialia, 2007, 3, 865-872.	4.1	73
21	Performance of silicone rubber composites with SiO₂ micro/nano-filler under AC corona discharge. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 2804-2815.	1.8	72
22	Toughening of unmodified polyvinylchloride through the addition of nanoparticulate calcium carbonate. Polymer, 2009, 50, 4066-4079.	1.8	70
23	Thermal residual strains and stresses in Al2O3/Al composites with interpenetrating networks. Acta Materialia, 1999, 47, 565-577.	3.8	69
24	Degradation of TiN coatings under cyclic loading. Acta Materialia, 2004, 52, 3229-3237.	3.8	65
25	Fracture of Alumina with Controlled Pores. Journal of the American Ceramic Society, 1998, 81, 2449-2457.	1.9	63
26	Influence of processing parameters on the bond toughness of roll-bonded aluminium strip. Scripta Materialia, 2008, 58, 959-962.	2.6	61
27	On the critical parameters that regulate the deformation behaviour of tooth enamel. Biomaterials, 2008, 29, 2697-2703.	5.7	58
28	Origin of large recoverable strain in 0.94(Bi0.5Na0.5)TiO3-0.06BaTiO3 near the ferroelectric-relaxor transition. Applied Physics Letters, 2013, 102, .	1.5	58
29	Deformation mechanisms operating during nanoindentation of TiN coatings on steel substrates. Surface and Coatings Technology, 2005, 192, 11-18.	2.2	57
30	Effect of microstructure upon elastic behaviour of human tooth enamel. Journal of Biomechanics, 2009, 42, 1075-1080.	0.9	57
31	On the mechanical properties of aluminaâ€“epoxy composites with an interpenetrating network structure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 393, 170-178.	2.6	55
32	Crack tip process zone domain switching in a soft lead zirconate titanate ceramic. Acta Materialia, 2007, 55, 5538-5548.	3.8	54
33	Correlation Between Piezoelectric Properties and Phase Coexistence in (<scp><scp>Ba</scp></scp>,<scp><scp>Ca</scp></scp>)(<scp><scp>Ti</scp></scp>,<scp><scp>Zr</scp></scp>)<scp>_O</scp> Ceramics. Journal of the American Ceramic Society, 2014, 97, 2885-2891.	1.9	54
34	Cyclic electric field response of morphotropic Bi1/2Na1/2TiO3-BaTiO3 piezoceramics. Applied Physics Letters, 2015, 106, .	1.5	53
35	An automated system for simulation and parameter identification of inelastic constitutive models. Computer Methods in Applied Mechanics and Engineering, 2002, 191, 2235-2260.	3.4	51
36	Transmission electron microscope characterisation of molar-incisor-hypomineralisation. Journal of Materials Science: Materials in Medicine, 2008, 19, 3187-3192.	1.7	50

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37	Ferroelastic domain switching in lead zirconate titanate measured by in situ neutron diffraction. Mechanics of Materials, 2007, 39, 283-290.	1.7	49
38	On the wear mechanism of human dental enamel. Journal of the Mechanical Behavior of Biomedical Materials, 2010, 3, 347-356.	1.5	49
39	Deformation and fracture of TiN and TiAlN coatings on a steel substrate during nanoindentation. Surface and Coatings Technology, 2006, 200, 3518-3526.	2.2	48
40	Al-Al2O3 Composites with Interpenetrating Network Structures: Composite Modulus Estimation. Journal of the American Ceramic Society, 2005, 88, 666-674.	1.9	47
41	Time-resolved diffraction measurements of electric-field-induced strain in tetragonal lead zirconate titanate. Journal of Applied Physics, 2007, 101, 094104.	1.1	47
42	Tailoring the Piezoelectric and Relaxor Properties of (<scp><scp>Bi</scp></scp>_{1/2}<scp><scp>Na</scp></scp>_{1/2})<scp><scp>TiO</scp></scp>₃â€ via Zirconium Doping. Journal of the American Ceramic Society, 2013, 96, 2881-2886.	1.9	46
43	Twinning effects in a polycrystalline magnesium alloy under cyclic deformation. Acta Materialia, 2014, 62, 212-224.	3.8	46
44	Reduction of the piezoelectric performance in lead-free (1-x)Ba(Zr0.2Ti0.8)O3-x(Ba0.7Ca0.3)TiO3 piezoceramics under uniaxial compressive stress. Journal of Applied Physics, 2012, 112, .	1.1	45
45	Response of aluminium foam-cored sandwich panels to bending load. Composites Part B: Engineering, 2014, 64, 24-32.	5.9	45
46	Finite element analysis of indentation of aluminium foam and sandwich panels with aluminium foam core. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 599, 125-133.	2.6	44
47	Finite element simulations of crack propagation in functionally graded materials under flexural loading. Engineering Fracture Mechanics, 2005, 72, 2444-2467.	2.0	43
48	The application of focused ion beam technology to the characterization of coatings. Surface and Coatings Technology, 2005, 198, 165-168.	2.2	43
49	Neutron diffraction study of the polarization reversal mechanism in [111]c-oriented Pb(Zn1â^•3Nb2â^•3)O3â^'xPbTiO3. Journal of Applied Physics, 2007, 101, 104108.	1.1	43
50	Frequency effects on fatigue crack growth and crack tip domain-switching behavior in a lead zirconate titanate ceramic. Acta Materialia, 2009, 57, 3932-3940.	3.8	42
51	In Situ Xâ€ray Diffraction of Biased Ferroelastic Switching in Tetragonal Leadâ€free (1â^'x)<scp><scp>Ba</scp></scp>(<scp><scp>Zr</scp></scp>_{0.2}<scp><scp>Ti</scp></scp>_{0.8})<scp> Piezoelectrics. Journal of the American Ceramic Society, 2013, 96, 2913-2920.	1.9	42
52	Microstructural response of TiN monolithic and multilayer coatings during microscratch testing. Journal of Materials Research, 2007, 22, 2312-2318.	1.2	41
53	Crack propagation paths in layered, graded composites. Composites Part B: Engineering, 2006, 37, 490-498.	5.9	40
54	Accurate cyclic plastic analysis using a neural network material model. Engineering Analysis With Boundary Elements, 2004, 28, 195-204.	2.0	39

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55	Zrâ€“Siâ€“N films fabricated using hybrid cathodic arc and chemical vapour deposition: Structure vs. properties. Surface and Coatings Technology, 2006, 200, 4213-4219.	2.2	39
56	Structural Integrity of Enamel: Experimental and Modeling. Journal of Dental Research, 2009, 88, 529-533.	2.5	39
57	Wear Properties of Alumina/Aluminum Composites with Interpenetrating Networks. Journal of the American Ceramic Society, 1996, 79, 121-128.	1.9	38
58	Effect of coating thickness on the deformation mechanisms in PVD TiN-coated steel. Surface and Coatings Technology, 2010, 204, 1764-1773.	2.2	38
59	Domain fragmentation during cyclic fatigue in 94%(Bi1/2Na1/2)TiO3-6%BaTiO3. Journal of Applied Physics, 2012, 112, .	1.1	37
60	Ceramic-like wear behaviour of human dental enamel. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 8, 47-57.	1.5	37
61	R-curve behavior in aluminaâ€“zirconia composites with repeating graded layers. Engineering Fracture Mechanics, 2002, 69, 1647-1665.	2.0	36
62	Nature of contact deformation of TiN films on steel. Journal of Materials Research, 2004, 19, 2616-2624.	1.2	36
63	Contact deformation of TiN coatings on metallic substrates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 423, 8-13.	2.6	36
64	The Effect of Electric Poling on the Performance of Leadâ€Free (1â^'x)<scp><scp>Ba</scp></scp>(<scp><scp>Zr</scp></scp>_{0.2}<scp><scp>Ti</scp></scp>_{0.8})<scp> Piezoceramics. Journal of the American Ceramic Society, 2013, 96, 3805-3811.	1.9	36
65	Grain size dependent texture evolution in severely rolled pure copper. Materials Characterization, 2015, 101, 180-188.	1.9	36
66	Microstructural Tailoring and Characterization of a Calcium Î±â€SiAlON Composition. Journal of the American Ceramic Society, 2002, 85, 812-818.	1.9	35
67	Deformation and fracture of Tiâ€“Siâ€“N nanocomposite films. Thin Solid Films, 2005, 479, 193-200.	0.8	35
68	R-Curve and Stress?Strain Behavior of Ferroelastic Ceramics. Journal of the American Ceramic Society, 2006, 89, 3721-3727.	1.9	35
69	Micro-AlN/nano-SiO2 co-filled silicone rubber composites with high thermal stability and excellent dielectric properties. Materials Letters, 2017, 209, 421-424.	1.3	35
70	Cyclic Fatigue Crack Growth in PZT Under Mechanical Loading. Journal of the American Ceramic Society, 2005, 88, 1331-1333.	1.9	34
71	Weight Function Analysis on the Râ€Curve Behavior of Multilayered Aluminaâ€“Zirconia Composites. Journal of the American Ceramic Society, 2002, 85, 1505-1511.	1.9	33
72	Contact damage evolution in diamondlike carbon coatings on ductile substrates. Journal of Materials Research, 2008, 23, 27-36.	1.2	33

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73	Deformation of a hard coating on ductile substrate system during nanoindentation: Role of the coating microstructure. Journal of Materials Research, 2006, 21, 437-447.	1.2	32
74	Effect of acidity upon attritionâ€“corrosion of human dental enamel. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 44, 23-34.	1.5	32
75	Fracture mode transitions during indentation of columnar TiN coatings on metal. Philosophical Magazine, 2005, 85, 2927-2945.	0.7	31
76	Effect of substrate roughness on the contact damage of DLC coatings. Diamond and Related Materials, 2008, 17, 975-979.	1.8	31
77	Toughening of unmodified polyvinylchloride through the addition of nanoparticulate calcium carbonate and titanate coupling agent. Journal of Applied Polymer Science, 2013, 127, 2339-2353.	1.3	31
78	High Bipolar Fatigue Resistance of BCTZ Leadâ€Free Piezoelectric Ceramics. Journal of the American Ceramic Society, 2016, 99, 174-182.	1.9	31
79	Role of microstructure in the grinding and polishing of Î±-sialon ceramics. Journal of the European Ceramic Society, 2003, 23, 2351-2360.	2.8	30
80	Unipolar Fatigue Behavior of <scp>BCTZ</scp> Leadâ€Free Piezoelectric Ceramics. Journal of the American Ceramic Society, 2016, 99, 1287-1293.	1.9	30
81	Transition from dislocation controlled plasticity to grain boundary mediated shear in nanolayered aluminum/palladium thin films. Thin Solid Films, 2011, 519, 3213-3220.	0.8	29
82	Deposition of nanocomposite TiN-Si3N4 thin films by hybrid cathodic arc and chemical vapor process. Applied Physics A: Materials Science and Processing, 2005, 81, 151-158.	1.1	28
83	R-curve behaviour of 2Y-TZP with submicron grain size. Journal of the European Ceramic Society, 2006, 26, 3575-3582.	2.8	28
84	Development of graded hydroxyapatite/CaCO3 composite structures for bone ingrowth. Journal of Materials Science: Materials in Medicine, 2007, 18, 1817-1824.	1.7	28
85	Buckling analysis of embedded nanotubes using gradient continuum theory. Mechanics of Materials, 2012, 45, 52-60.	1.7	28
86	Determination of domain orientation in lead zirconate titanate ceramics by Raman spectroscopy. Applied Physics Letters, 2006, 88, 162903.	1.5	27
87	Characterization of the chemically deposited hydroxyapatite coating on a titanium substrate. Journal of Materials Science: Materials in Medicine, 2011, 22, 1-9.	1.7	27
88	Failure of metalâ€“ceramic composites with spherical inclusions1Dedicated to Prof. Fritz Aldinger in honour of his 60th birthday.1. Acta Materialia, 2001, 49, 3177-3187.	3.8	26
89	Investigation of sub-surface damage during sliding wear of alumina using focused ion-beam milling. Wear, 2002, 252, 531-539.	1.5	26
90	Effects of plastic yielding on crack propagation near ductile/brittle interfaces. Acta Materialia, 2005, 53, 3935-3949.	3.8	26

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91	Deposition of nanocomposite thin films by a hybrid cathodic arc and chemical vapour technique. Surface and Coatings Technology, 2006, 201, 4139-4144.	2.2	26
92	Ferroelastic domain switching fatigue in lead zirconate titanate ceramics. Acta Materialia, 2008, 56, 1577-1587.	3.8	26
93	Design of functionally graded carbon coatings against contact damage. Thin Solid Films, 2010, 518, 5769-5776.	0.8	26
94	Cooperation of length scales and orientations in the deformation of bovine bone. Acta Biomaterialia, 2011, 7, 2943-2951.	4.1	26
95	Characterization of TiN thin films subjected to nanoindentation using focused ion beam milling. Applied Surface Science, 2004, 237, 627-631.	3.1	25
96	Elastic and viscoelastic properties of porcine subdermal fat using MRI and inverse FEA. Biomechanics and Modeling in Mechanobiology, 2010, 9, 703-711.	1.4	25
97	The use of the scratch test to measure the fracture strength of brittle thin films. Thin Solid Films, 2010, 518, 4911-4917.	0.8	25
98	Characterization of surface contact-induced fracture in ceramics using a focused ion beam miller. Wear, 2003, 255, 651-656.	1.5	24
99	Ferroelastic Fatigue of a Soft PZT Ceramic. Journal of the American Ceramic Society, 2005, 88, 2788-2792.	1.9	24
100	Characterisation of nanolayered aluminium/palladium thin films using nanoindentation. Thin Solid Films, 2009, 517, 3698-3703.	0.8	24
101	Measurement and analysis of field-induced crystallographic texture using curved position-sensitive diffraction detectors. Journal of Electroceramics, 2014, 32, 283-291.	0.8	24
102	Three dimensional imaging of deformation modes in TiN-based thin film coatings. Thin Solid Films, 2007, 515, 3190-3195.	0.8	23
103	Substrate effects on the mechanical properties and contact damage of diamond-like carbon thin films. Diamond and Related Materials, 2010, 19, 1273-1280.	1.8	23
104	Piezoelectricity and rotostriction through polar and non-polar coupled instabilities in bismuth-based piezoceramics. Scientific Reports, 2016, 6, 28742.	1.6	23
105	Electric fieldâ€“temperature phase diagrams for (Bi_{1/2}Na_{1/2})TiO₃â€“BaTiO₃â€“(K_{1/2}Na_{1/2})NbO₃ relaxor ceramics. Journal of Materials Chemistry C, 2018, 6, 12224-12233.	2.7	23
106	A simple nanoindentation-based methodology to assess the strength of brittle thin films. Acta Materialia, 2008, 56, 1633-1641.	3.8	22
107	Mechanical stability of twoâ€step chemically deposited hydroxyapatite coating on Ti substrate: Effects of various surface pretreatments. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 99B, 58-69.	1.6	22
108	Fracture behaviour in metal fibre reinforced ceramics. Acta Materialia, 1997, 45, 3609-3623.	3.8	21

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109	Nanoindentation-induced deformation behaviour of diamond-like carbon coatings on silicon substrates. Thin Solid Films, 2006, 515, 1000-1004.	0.8	21
110	Fracture Strength of Polycrystalline Silicon Wafers for the Photovoltaic Industry. Journal of the American Ceramic Society, 2009, 92, 2713-2717.	1.9	21
111	Electrical Fatigueâ€Induced Cracking in Lead Zirconate Titanate Piezoelectric Ceramic and Its Influence Quantitatively Analyzed by Refatigue Method. Journal of the American Ceramic Society, 2012, 95, 2593-2600.	1.9	21
112	Scratch Damage in Ceramics: Role of Microstructure. Journal of the American Ceramic Society, 2003, 86, 141-148.	1.9	20
113	Anisotropy effects on the reliability of single-crystal silicon. Scripta Materialia, 2010, 63, 997-1000.	2.6	20
114	Measurement of fracture strength in brittle thin films. Surface and Coatings Technology, 2014, 254, 1-10.	2.2	20
115	Mechanical properties and scratch resistance of filtered-arc-deposited titanium oxide thin films on glass. Thin Solid Films, 2011, 519, 7925-7931.	0.8	19
116	Investigation of the domain switching zone near a crack tip in pre-poled lead zirconate titanate ceramic via in situ X-ray diffraction. Scripta Materialia, 2011, 64, 1-4.	2.6	19
117	Deformation behaviour of DLC coatings on (111) silicon substrates. Thin Solid Films, 2007, 516, 267-271.	0.8	18
118	Mechanics prediction of the fracture pattern on scratching wafers of single crystal silicon. Acta Materialia, 2012, 60, 4448-4460.	3.8	18
119	Attrition-corrosion of human dental enamel: A review. Biosurface and Biotribology, 2017, 3, 196-210.	0.6	18
120	Effect of geometrical structure variations on the viscoelastic and anisotropic behaviour of cortical bone using multi-scale finite element modelling. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 113, 104153.	1.5	17
121	Sliding wear behaviour of Ca Î±-sialon ceramics at 600Â°C in air. Wear, 2006, 260, 1356-1360.	1.5	16
122	Berkovich indentation of diamondlike carbon coatings on silicon substrates. Journal of Materials Research, 2008, 23, 1862-1869.	1.2	16
123	An in vitro study of the wear mechanism of a leucite glass dental ceramic. Biosurface and Biotribology, 2015, 1, 50-61.	0.6	16
124	Electrical fatigue behavior of NBT-BT-xKNN ferroelectrics: effect of ferroelectric phase transformations and oxygen vacancies. Journal of Materials Chemistry C, 2020, 8, 3887-3896.	2.7	16
125	Domain Switching Under Cyclic Mechanical Loading in Lead Zirconate Titanate. Journal of the American Ceramic Society, 2006, 89, 3567-3569.	1.9	15
126	Fatigue crack propagation resistance in homogeneous and graded aluminaâ€“epoxy composites. International Journal of Fatigue, 2007, 29, 158-167.	2.8	15

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127	Anin vitrostudy of the microstructure, composition and nanoindentation mechanical properties of remineralizing human dental enamel. Journal Physics D: Applied Physics, 2014, 47, 315403.	1.3	15
128	Crack-tip Degradation Processes Observed during in situ Cyclic Fatigue of Partially Stabilized Zirconia. Journal of the American Ceramic Society, 1995, 78, 2801-2810.	1.9	14
129	Suggestion for Mechanism of Strengthening of â€œNanotoughenedâ€•Ceramics. Journal of the Ceramic Society of Japan, 1997, 105, 1086-1090.	1.3	14
130	Three-dimensional study of indentation-induced cracks in an amorphous carbon coating on a steel substrate. Journal of Materials Research, 2006, 21, 2600-2605.	1.2	14
131	Reverse size effect in the fracture strength of brittle thin films. Scripta Materialia, 2009, 60, 937-940.	2.6	14
132	Evaluation of crack-tip stress fields on microstructural-scale fracture in Alâ€“Al2O3 interpenetrating network composites. Acta Materialia, 2009, 57, 570-581.	3.8	14
133	Electric-Field-Induced Phase Transformation and Frequency-Dependent Behavior of Bismuth Sodium Titanateâ€“Barium Titanate. Materials, 2020, 13, 1054.	1.3	14
134	Assessment of strength and toughness of modified PVC pipes. Plastics, Rubber and Composites, 2001, 30, 434-440.	0.9	13
135	Sliding wear of calcium Î±-sialon ceramics. Wear, 2006, 260, 387-400.	1.5	13
136	Effect of coating thickness on the deformation behaviour of diamond-like carbonâ€“silicon system. Thin Solid Films, 2010, 518, 2021-2028.	0.8	13
137	Dynamic processes of domain switching in lead zirconate titanate under cyclic mechanical loading by in situ neutron diffraction. Acta Materialia, 2010, 58, 1897-1908.	3.8	12
138	The effects of three different food acids on the attrition-corrosion wear of human dental enamel. Journal Physics D: Applied Physics, 2015, 48, 285401.	1.3	12
139	Orientation-dependent lattice strains in lead zirconate titanate under mechanical compression by in situ neutron diffraction. Physica B: Condensed Matter, 2006, 385-386, 548-551.	1.3	11
140	Investigation of sliding wear surfaces in alumina using transmission electron microscopy. Science and Technology of Advanced Materials, 2006, 7, 826-833.	2.8	11
141	Indentation of metallic foam core sandwich panels with soft aluminium face sheets. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 558, 175-185.	2.6	11
142	Investigation of partial discharge in piezoelectric ceramics. Acta Materialia, 2016, 102, 284-291.	3.8	11
143	Influence of microstructure on symmetry determination of piezoceramics. Journal of Applied Crystallography, 2018, 51, 670-678.	1.9	11
144	Electrical fatigue failure in (Na 1/2 Bi 1/2)TiO 3 â€“BaTiO 3 relaxor ceramics. Journal of the American Ceramic Society, 2019, 102, 5997-6007.	1.9	11

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145	Spontaneous relaxor to ferroelectric transition in lead-free relaxor piezoceramics and the role of point defects. Journal of the European Ceramic Society, 2020, 40, 2323-2330.	2.8	11
146	Temperature Dependence on Domain Switching Behavior in Lead Zirconate Titanate Under Electrical Load via In Situ Neutron Diffraction. Journal of the American Ceramic Society, 2011, 94, 3202-3205.	1.9	10
147	The ageing and de-ageing behaviour of (Ba0.85Ca0.15)(Ti0.9Zr0.1)O3 lead-free piezoelectric ceramics. Journal of Applied Physics, 2015, 118, .	1.1	10
148	Influence of Bâ€Site Disorder on the Properties of Unpoled Bi_{1/2}Na_{1/2}TiO₃â€0.06Ba(Zr_xTi_{1â€x})O₃ Piezoceramics. Journal of the American Ceramic Society, 2016, 99, 2801-2808.	1.9	10
149	Effect of mechanical depoling on piezoelectric properties of Na0.5Bi0.5TiO3â€“xBaTiO3 in the morphotropic phase boundary region. Journal of Materials Science, 2018, 53, 1672-1679.	1.7	10
150	Fracture mode of alumina/silicon carbide nanocomposites. Journal of Materials Research, 2000, 15, 107-114.	1.2	9
151	Curved crack propagation in homogeneous and graded materials. Fatigue and Fracture of Engineering Materials and Structures, 2005, 28, 939-950.	1.7	9
152	Fracture and Fatigue Crack Propagation in Graded Composites. Materials Science Forum, 2005, 492-493, 573-580.	0.3	9
153	Detection of prefracture microcracking in Al2O3 by acoustic emission. Journal of the European Ceramic Society, 1998, 18, 1645-1654.	2.8	8
154	An indirect implicit technique for modelling piezoelectric ceramics. Computational Materials Science, 2008, 43, 629-640.	1.4	8
155	Effect of temperature on metastable phases induced in silicon during nanoindentation. Journal of Materials Research, 2008, 23, 245-249.	1.2	8
156	The effects of frequency on fatigue threshold and crack propagation rate in modified and unmodified polyvinyl chloride. Polymer Engineering and Science, 2009, 49, 1299-1310.	1.5	8
157	Experimental and analytical study on the deformation response of closed-cell Al foam panels to local contact damageâ€"Mechanical properties extraction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 6033-6045.	2.6	8
158	Nano/micro mechanics study of nanoindentation on thin Al/Pd films. Journal of Materials Research, 2015, 30, 699-708.	1.2	7
159	Effect of contact load upon attrition-corrosion of human dental enamel. Wear, 2018, 414-415, 101-108.	1.5	7
160	The complex structural mechanisms behind strain curves in bismuth sodium titanateâ€"barium titanate. Applied Physics Letters, 2020, 116, .	1.5	7
161	Fracture Toughness and Subcritical Crack Growth in an Alumina/Silicon Carbide â€˜Nanocompositeâ€™. , 1996, , 179-186.		7
162	Influence of residual stress on the relationship between pipe pressure and C-ring tests. Polymer Engineering and Science, 2000, 40, 2311-2316.	1.5	6

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163	Finite-Element Simulations of Cracks Near Interfaces: Effects of Thermal, Elastic, and Plastic Mismatch. Journal of the American Ceramic Society, 2005, 88, 2833-2838.	1.9	6
164	Layer orientation effects on the R-curve behavior of multilayered aluminaâ€“zirconia composites. Composites Part B: Engineering, 2006, 37, 449-458.	5.9	6
165	Effect of substrate roughness on the contact damage of thin brittle films on brittle substrates. Thin Solid Films, 2010, 518, 5242-5248.	0.8	6
166	Investigation of Partial Discharge and Fracture Strength in Piezoelectric Ceramics. Journal of the American Ceramic Society, 2014, 97, 1905-1911.	1.9	6
167	Scratch Fracture of Polycrystalline Silicon Wafers. Journal of the American Ceramic Society, 2015, 98, 2587-2594.	1.9	6
168	Effect of AC corona discharge on hydrophobic properties of silicone rubber nanocomposites. , 2015, , .		6
169	Tailoring of an Interpenetrating Network Ceramic/Metal Microstructure to Improve Strength: Al₂O₃/Ni₃Al and Al₂O₃/Al. Key Engineering Materials, 1999, 159-160, 311-318.	0.4	5
170	STRUCTURAL RESPONSE OF ALUMINIUM FOAM HYBRID SANDWICH PANELS UNDER THREE-POINT BENDING LOADING. International Journal of Modern Physics B, 2009, 23, 1733-1738.	1.0	5
171	Nanoindentation-induced deformation behaviour of tetrahedral amorphous carbon coating deposited by filtered cathodic vacuum arc. Diamond and Related Materials, 2010, 19, 1423-1430.	1.8	5
172	In Situ Neutron Diffraction Studies on Poling of the Hard PZT Ceramic PIC181. Advanced Engineering Materials, 2019, 21, 1900159.	1.6	5
173	Nanomechanical and tribological characterization of silk and silk-titanate composite coatings. Tribology International, 2020, 146, 106195.	3.0	5
174	Functional surface layers in relaxor ferroelectrics. Journal of Materials Chemistry C, 2020, 8, 7663-7671.	2.7	5
175	Approximation of curved cracks under mixed-mode loading. Engineering Fracture Mechanics, 2007, 74, 1026-1040.	2.0	4
176	The effects of water and frequency on fatigue crack growth rate in modified and unmodified polyvinyl chloride. Polymer Engineering and Science, 2010, 50, 352-364.	1.5	4
177	<scp>FIB</scp> Tomographic Analysis of Subsurface Indentation Crack Interactions with Pores in Alumina. Journal of the American Ceramic Society, 2011, 94, 4017-4024.	1.9	4
178	The wear behaviour of remineralised human dental enamel: An in vitro study. Wear, 2020, 444-445, 203165.	1.5	4
179	Ferroelastic contribution to the piezoelectric response in lead zirconate titanate by in situ stroboscopic neutron diffraction. Physica B: Condensed Matter, 2006, 385-386, 100-102.	1.3	3
180	Ferroelectric properties of Pb(Zr0.52Ti0.48)O3â€“Bi3.25La0.75Ti3O12 ceramics. Ceramics International, 2012, 38, S205-S209.	2.3	3

#	Article	IF	Citations
181	Effect of HAP crystallite orientation upon corrosion and tribocorrosion behavior of bovine and human dental enamel. Corrosion Science, 2021, 190, 109670.	3.0	3
182	Fluorescence spectroscopy analysis of Alâ€“Al2O3 composites with coarse interpenetrating networks. Journal of Materials Science, 2006, 41, 7571-7579.	1.7	2
183	Contact damage of tetrahedral amorphous carbon thin films on silicon substrates. Journal of Materials Research, 2009, 24, 3286-3293.	1.2	2
184	Correlation of nanoindentation-induced deformation microstructures in diamondlike carbon coatings on silicon substrates with simulation studies. Journal of Materials Research, 2010, 25, 910-920.	1.2	2
185	Facial deformations during nasal continuous positive airway pressure therapy. Journal of Biomechanics, 2016, 49, 3848-3854.	0.9	2
186	Dielectric properties, electric-field-induced polarization and strain behavior of Lead Zirconate Titanate-Strontium bismuth Niobate ceramics. Journal of Electroceramics, 2016, 36, 70-75.	0.8	2
187	Electrical fatigue in 0.94Na0.5Bi0.5TiO3â€“0.06BaTiO3: Influence of the surface layer. Applied Physics Letters, 2020, 117, .	1.5	2
188	Fracture and electricâ€fieldâ€induced crack growth behavior in NBTâ€6BT relaxor ferroelectrics. Journal of the American Ceramic Society, 2021, 104, 2158-2169.	1.9	2
189	Fatigue Crack Propagation in Graded Composites. , 2004, , 331-336.		2
190	Effect of silicon carbide whisker reinforcement on CaOâ€“ZrO2â€“SiO2glassâ€“ceramic system. Advances in Applied Ceramics, 2000, 99, 274-277.	0.4	1
191	Resistance of Thin Al Foam Panels to Deep Indentation. Materials Science Forum, 2007, 561-565, 357-360.	0.3	1
192	Effect of Microstructure on Sliding Wear of Ca Î±-SiAlON Ceramics. Key Engineering Materials, 2005, 280-283, 1253-1258.	0.4	1
193	Fracture of Materials: Moving Forwards. Engineering Fracture Mechanics, 2007, 74, 1007-1008.	2.0	1
194	Visualization of highly graded oxygen vacancy profiles in lead-zirconate-titanate by spectrally resolved cathodoluminescence spectroscopy. Applied Physics Letters, 2009, 95, .	1.5	1
195	Closed form solution for a line inclusion in magnetoelectroelastic media. International Journal of Applied Electromagnetics and Mechanics, 2010, 34, 119-129.	0.3	1
196	Improvement of Ferroelectric Properties of PZT Ceramics by SBT Addition. Ferroelectrics, 2013, 451, 22-29.	0.3	1
197	Dielectric, Polarization and Strain Response of Enhanced Complex Ceramics: The Study through Pb(Zr0.52Ti0.48)O3-SrBi2Ta2O9. Ferroelectrics, 2015, 488, 79-88.	0.3	1
198	Optimized bio-inspired stiffening design for an engine nacelle. Bioinspiration and Biomimetics, 2015, 10, 066008.	1.5	1

#	Article	IF	Citations
199	The Rising Importance of Precision Engineering. Engineering, 2018, 4, 759.	3.2	1
200	Fracture and Fatigue Crack Propagation in Graded Composites. Materials Science Forum, 0, , 573-580.	0.3	1
201	Improvements to C-ring fracture toughness test for poly(vinyl chloride) pipes. Plastics, Rubber and Composites, 2000, 29, 417-419.	0.9	0
202	Microstructural Tailoring and Mechanical Properties of Ca Î±-Sialon Ceramics. Key Engineering Materials, 2002, 224-226, 251-256.	0.4	0
203	Application of Focused Ion Beam Miller in Fracture Characterization. Key Engineering Materials, 2003, 247, 297-300.	0.4	0
204	Strength Measurement in Brittle Thin Films. Materials Research Society Symposia Proceedings, 2007, 1049, 1.	0.1	0
205	The Frequency Effects on Fatigue Threshold of PVC-M and PVC-U in Air and Water Medium. Advanced Materials Research, 0, 41-42, 183-187.	0.3	0
206	Fatigue Crack Growth in Ultrafine Grained Aluminium Alloy. Materials Science Forum, 2011, 690, 254-257.	0.3	0
207	Partial discharge characteristics of piezoelectric ceramics under bipolar and unipolar applied voltages. , 2015, , .		0