Hiroyuki Miyazaki

List of Publications by Year
in descending order

68 papers	898 citations	516561 16 h-index	501076 28 g-index
71 all docs	71 docs citations	71 times ranked	707 citing authors

#	Article	IF	Citations
1	Roundâ€robin exercise on the threeâ€•and fourâ€point flexural strength of thin ceramic plates for power modules. International Journal of Applied Ceramic Technology, 2019, 16, 2121-2130.	1.1	2
2	Relationship between the thermal stress and structures of thermal-cycling-induced cracks in electroless nickel plating on metalized substrates. Journal of Materials Science: Materials in Electronics, 2019, 30, 5820-5832.	1.1	3
3	Improved resistance to thermal fatigue of active metal brazing substrates for silicon carbide power modules using tough silicon nitrides with high thermal conductivity. Ceramics International, 2018, 44, 8870-8876.	2.3	32
4	Effects of phosphorus content on generation and growth of cracks in nickelâ€“phosphorus platings owing to thermal cycling. Journal of Materials Science: Materials in Electronics, 2018, 29, 11688-11698.	1.1	3
5	Accelerated thermal fatigue test of metallized ceramic substrates for SiC power modules by repeated four-point bending. , 2018, , .		1
6	Substrate. , 2018, , 81-94.		3
7	Thermal-cycling-induced surface roughening and structural change of a metal layer bonded to silicon nitride by active metal brazing. Journal of Materials Science: Materials in Electronics, 2017, 28, 12168-12175.	1.1	4
8	Crack generation in electroless nickel plating layers on copper-metallized silicon nitride substrates during thermal cycling. Journal of Materials Science: Materials in Electronics, 2017, 28, 8278-8285.	1.1	9
9	A reinvestigation of the validity of the indentation fracture (IF) method as applied to ceramics. Journal of the European Ceramic Society, 2017, 37, 4437-4441.	2.8	23
10	Defects in nickel plating layers on copper-metallized substrates induced by thermal cycles. , 2016, , .		2
11	Effect of mechanical properties of the ceramic substrate on the thermal fatigue of Cu metallized ceramic substrates. , 2016, , .		5
12	Effect of repeated thermal cycles on thermal stress in copper paste films on alumina substrates. Journal of Materials Science: Materials in Electronics, 2016, 27, 8440-8445.	1.1	2
13	Measurements of fracture toughness of ceramic thin plates through single-edge V-notch plate method. Journal of the European Ceramic Society, 2016, 36, 4327-4331.	2.8	6
14	Round-robin test on the fracture toughness of ceramic thin plates through modified single edge-precracked plate method. Journal of the European Ceramic Society, 2016, 36, 3245-3248.	2.8	10
15	Correlation of the indentation fracture resistance measured using high-resolution optics and the fracture toughness obtained by the single edge-notched beam (SEPB) method for typical structural ceramics with various microstructures. Ceramics International, 2016, 42, 7873-7876.	2.3	15
16	Novel measurement technique of crack length for indentation fracture (IF) method using high contrast image of crack tips through thin film coating. Journal of the European Ceramic Society, 2015, 35, 2943-2948.	2.8	4
17	Evaluation of fracture toughness of ceramic thin plates through modified single edge-precracked plate method. Scripta Materialia, 2015, 103, 34-36.	2.6	15
18	International round-robin test on an improved indentation fracture (IF) method performed through high-magnification microscopy with a traveling stage. Ceramics International, 2015, 41, 13271-13276.	2.3	2

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19	Refined measurements of indentation fracture resistance of alumina using powerful optical microscopy. Ceramics International, 2014, 40, 2777-2783.	2.3	16
20	Round robin on indentation fracture resistance of silicon carbide ceramics by using a powerful optical microscope. Ceramics International, 2013, 39, 611-617.	2.3	14
21	Improved accuracy of the measurements of indentation fracture resistance for silicon nitride ceramics by the powerful optical microscopy. Ceramics International, 2013, 39, 9499-9504.	2.3	12
22	Joining of alumina with a porous alumina interlayer. Ceramics International, 2012, 38, 1149-1155.	2.3	23
23	Effects of MgO addition on the microwave dielectric properties of high thermal-conductive silicon nitride ceramics sintered with ytterbia as sintering additives. Journal of the European Ceramic Society, 2012, 32, 3297-3301.	2.8	22
24	Preparation and characterization of tubular porous silicon carbide membrane supports. Journal of Membrane Science, 2011, 369, 112-118.	4.1	72
25	Crack profiles under a Vickers indent in silicon nitride ceramics with various microstructures. Ceramics International, 2010, 36, 173-179.	2.3	15
26	Microstructure of boron carbide pressureless sintered in an Ar atmosphere containing gaseous metal species. Journal of the European Ceramic Society, 2010, 30, 999-1005.	2.8	18
27	Indentation fracture resistance test round robin on silicon nitride ceramics. Ceramics International, 2010, 36, 899-907.	2.3	15
28	Fabrication of high thermal-conductive silicon nitride ceramics with low dielectric loss. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 161, 198-201.	1.7	15
29	Correlation of wear behavior and indentation fracture resistance in silicon nitride ceramics hot-pressed with alumina and yttria. Journal of the European Ceramic Society, 2009, 29, 1535-1542.	2.8	38
30	Relationship between fracture toughness determined by surface crack in flexure and fracture resistance measured by indentation fracture for silicon nitride ceramics with various microstructures. Ceramics International, 2009, 35, 493-501.	2.3	26
31	Effect of crystallization of intergranular glassy phases on the dielectric properties of silicon nitride ceramics. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 148, 257-260.	1.7	19
32	Pressureless sintering of boron carbide ceramics. Journal of the Ceramic Society of Japan, 2008, 116, 1319-1321.	0.5	22
33	Measurement of Indentation Fracture Toughness of Silicon Nitride Ceramics: I, Effect of Microstructure of Materials. Key Engineering Materials, 2007, 352, 41-44.	0.4	4
34	Measurement of Indentation Fracture Toughness of Silicon Nitride Ceramics: II, Effect of the Experimental Conditions. Key Engineering Materials, 2007, 352, 45-48.	0.4	6
35	Preparation of Mesoporous Silicon Carbide. Key Engineering Materials, 2007, 352, 95-99.	0.4	0
36	Physical property changes of crystalline and non-crystalline SiO2 due to neutron irradiation and recovery by subsequent annealing. Journal of Nuclear Materials, 2007, 367-370, 730-735.	1.3	5

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37	The application of automated image analysis to dense heterogeneities in partially sintered alumina. Journal of the European Ceramic Society, 2007, 27, 1927-1933.	2.8	4
38	Comparison of fracture resistance as measured by the indentation fracture method and fracture toughness determined by the single-edge-precracked beam technique using silicon nitrides with different microstructures. Journal of the European Ceramic Society, 2007, 27, 2347-2354.	2.8	36
39	Preparation of Mesoporous Silicon Carbide from Nano-Sized SiC Particle and Polycarbosilane. Journal of the Ceramic Society of Japan, 2006, 114, 571-574.	1.3	15
40	Influence of the Measuring Method for Crack Length on the Fracture Toughness of Silicon Nitride Ceramics Obtained by the Indentation Fracture Technique. Journal of the Ceramic Society of Japan, 2006, 114, 787-790.	1.3	0
41	Microstructural Characterization of Porous Silicon Carbide Membrane Support With and Without Alumina Additive. Journal of the American Ceramic Society, 2006, 89, 1523-1529.	1.9	114
42	Effect of the volume ratio of zirconia and alumina on the mechanical properties of fibrous zirconia/alumina bi-phase composites prepared by co-extrusion. Journal of the European Ceramic Society, 2006, 26, 3539-3546.	2.8	12
43	Microstructures and Mechanical Properties of Fine-Scale Fibrous Alumina / Zirconia Bi-Phase Composite Fabricated by Co-Extrusion Process. Key Engineering Materials, 2006, 317-318, 619-622.	0.4	0
44	Concentration gradient of solute ions within Î±-SiAlON grains. Materials Letters, 2005, 59, 44-47.	1.3	4
45	Preparation and mechanical properties of 10 vol.% zirconia/alumina composite with fine-scale fibrous microstructure by co-extrusion process. Materials Letters, 2004, 58, 1410-1414.	1.3	16
46	Solidification of GaSb on a Ceramic Substrate in Short-Duration Microgravity. Japanese Journal of Applied Physics, 2003, 42, 6265-6268.	0.8	2
47	New constitutive equation, including grain coarsening effect, for superplastic ceramics. Advances in Applied Ceramics, 2001, 100, 93-99.	0.4	1
48	Densification and Thermal, Mechanical and Electrical Properties of SiC Ceramics Sintered with Addition of MgO.. Journal of the Ceramic Society of Japan, 2001, 109, 227-231.	1.3	4
49	Tensile Deformation of Both ZrO₂/TiC Composite and Al₂O₃/TiC Composite at High Temperature. Key Engineering Materials, 2000, 171-174, 771-778.	0.4	3
50	Grain Boundary Geometry of Superplastic Silicon Carbide Ceramic. Materials Science Forum, 1999, 304-306, 573-578.	0.3	1
51	X-ray diffractometry and high-resolution electron microscopy of neutron-irradiated SiC to a fluence of 1.9Ã—1027 n/m2. Journal of Nuclear Materials, 1998, 253, 78-86.	1.3	60
52	Measurement of Strength of Ceramic Materials Using a Miniaturized Bending Method. Key Engineering Materials, 1998, 159-160, 263-268.	0.4	1
53	Effect of Sintering Method on Densification and Mechanical Properties of Si₃N₄/SiC Composites with Nitrates as Sintering Additives. Journal of the Ceramic Society of Japan, 1998, 106, 559-564.	1.3	2
54	Estimation of Standard-Size Strength in Silicon Carbide Ceramics Using Miniature Specimens. Journal of the Ceramic Society of Japan, 1998, 106, 592-595.	1.3	1

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55	Determination of Nitrogen Content in Vanadium Powder by Inert-Gas Fusion of Graphite-Added Pellets. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1998, 62, 427-435.	0.2	0
56	Recovery of neutron-induced defects in near-stoichiometric spinel ceramics irradiated at around 500Â°C. Nuclear Instruments & Methods in Physics Research B, 1996, 116, 131-135.	0.6	6
57	Effect of isochronal annealing on thermal diffusivity of neutron-irradiated AlN. Journal of Nuclear Materials, 1996, 230, 74-77.	1.3	12
58	Effect of neutron irradiation on passive oxidation of silicon carbide. Journal of Nuclear Materials, 1996, 233-237, 1275-1278.	1.3	7
59	Strength Evaluation of Ceramics Using Miniature Specimens. Journal of the Ceramic Society of Japan, 1995, 103, 177-181.	1.3	1
60	Neutron Irradiation Damage of Silicon Carbide. Fusion Science and Technology, 1995, 27, 314-325.	0.6	45
61	Effects of nonstoichiometry on physical properties in neutron-irradiated spinel ceramics. Journal of Nuclear Materials, 1994, 212-215, 1046-1049.	1.3	8
62	Effects of Thermal Annealing on the Macroscopic Dimension and Lattice Parameter of Heavily Neutron-Irradiated Silicon Carbide. Journal of Nuclear Science and Technology, 1992, 29, 656-663.	0.7	33
63	X-ray line broadening in neutron irradiated silicon carbide. Journal of Nuclear Materials, 1992, 191-194, 588-591.	1.3	9
64	Effects of Thermal Annealing on the Macroscopic Dimension and Lattice Parameter of Heavily Neutron-Irradiated Silicon Carbide.. Journal of Nuclear Science and Technology, 1992, 29, 656-663.	0.7	17
65	Fracture Resistance and Wear Properties of Silicon Nitride Ceramics. Key Engineering Materials, 0, 403, 53-56.	0.4	0
66	Fracture-Toughness Test of Silicon Nitrides with Different Microstructures Using Vickers Indentation. , 0, , 433-442.		1
67	Rolling Contact Fatigue Properties and Fracture Resistance for Silicon Nitride Ceramics with Various Microstructures. Ceramic Engineering and Science Proceedings, 0, , 90-99.	0.1	0
68	Study of Factors Affecting the Lengths of Surface Cracks in Silicon Nitride Introduced by Vickers Indentation. , 0, , 389-398.		0