Keijiro Hiraga

List of Publications by Year
in descending order

94 papers	2,441 citations	168829 31 h-index	232693 48 g-index
96 all docs	96 docs citations	96 times ranked	1552 citing authors

#	Article	IF	Citations
1	Development of Laser Optical Elements by Spark Plasma Sintering Technique. The Review of Laser Engineering, 2019, 47, 448.	0.0	0
2	Distribution of carbon contamination in oxide ceramics occurring during spark-plasma-sintering (SPS) processing: II - Effect of SPS and loading temperatures. Journal of the European Ceramic Society, 2018, 38, 2596-2604.	2.8	62
3	Distribution of carbon contamination in MgAl2O4 spinel occurring during spark-plasma-sintering (SPS) processing: I â€“ Effect of heating rate and post-annealing. Journal of the European Ceramic Society, 2018, 38, 2588-2595.	2.8	43
4	Transparent ultrafine Yb³⁺:Y₂O₃ laser ceramics fabricated by spark plasma sintering. Journal of the American Ceramic Society, 2018, 101, 694-702.	1.9	37
5	Possibility of Low-Temperature High-Strain-Rate Superplasticity in Fine-Grained Ceramic Materials. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2017, 64, 515-522.	0.1	0
6	Thermo-optic Characteristics of Transparent Ceramic YAG in the Near Infrared Region. The Review of Laser Engineering, 2017, 45, 231.	0.0	0
7	High Verdet constant of Ti-doped terbium aluminum garnet (TAG) ceramics. Optical Materials Express, 2016, 6, 191.	1.6	47
8	Fabrication of Dense Nanostructured Bulk Ceramics by Means of Spark-Plasma-Sintering (SPS) Processing. Materials Science Forum, 2016, 838-839, 225-230.	0.3	1
9	Influence of pre- and post-annealing on discoloration of MgAl2O4 spinel fabricated by spark-plasma-sintering (SPS). Journal of the European Ceramic Society, 2016, 36, 2961-2968.	2.8	49
10	Assessment of carbon contamination in MgAl₂O₄ spinel during spark-plasma-sintering (SPS) processing. Journal of the Ceramic Society of Japan, 2015, 123, 983-988.	0.5	37
11	Influence of Spark Plasma Sintering (<scp>SPS</scp>) Conditions on Transmission of MgAl₂O₄ Spinel. Journal of the American Ceramic Society, 2015, 98, 378-385.	1.9	44
12	Thermo-optic effects of ceramic TGG in the 300â€“500 K temperature range. Optical Materials Express, 2015, 5, 1266.	1.6	7
13	Spectroscopic study of the discoloration of transparent MgAl2O4 spinel fabricated by spark-plasma-sintering (SPS) processing. Acta Materialia, 2015, 84, 9-19.	3.8	88
14	Temperature dependence of magneto-optic effect in a Ti-doped terbium aluminum garnet (TAG) ceramic. , 2015, , .		0
15	Dynamic grain growth during low-temperature spark plasma sintering of alumina. Scripta Materialia, 2014, 80, 29-32.	2.6	36
16	Thermo-optic properties of ceramic YAG at high temperatures. Optical Materials Express, 2014, 4, 1794.	1.6	36
17	Transparent ZnAl₂O₄ ceramics fabricated by spark plasma sintering. Journal of the Ceramic Society of Japan, 2014, 122, 784-787.	0.5	23
18	Influence of Loading Condition on Fabrication of Transparent MgAl₂O₄ Spinel Ceramics by Spark-Plasma-Sintering (SPS) Technique. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2014, 61, 565-574.	0.1	0

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19	Grain-boundary sliding model of pore shrinkage in late intermediate sintering stage under hydrostatic pressure. Acta Materialia, 2013, 61, 6661-6669.	3.8	10
20	Development of High-Strain-Rate Superplastic Oxide Ceramics Based on Flow Mechanism. Materials Science Forum, 2012, 735, 9-14.	0.3	2
21	High-pressure spark plasma sintering of MgO-doped transparent alumina. Journal of the Ceramic Society of Japan, 2012, 120, 116-118.	0.5	48
22	Effect of Alumina Dopant on Transparency of Tetragonal Zirconia. Journal of Nanomaterials, 2012, 2012, 1-5.	1.5	41
23	Effect of loading schedule on densification of MgAl2O4 spinel during spark plasma sintering (SPS) processing. Journal of the European Ceramic Society, 2012, 32, 2303-2309.	2.8	37
24	Shrinkage of Pores Located at Grain Corners by Grain-Boundary Diffusion. Journal of the American Ceramic Society, 2011, 94, 982-984.	1.9	6
25	Optical Properties and Microstructure of Nanocrystalline Cubic Zirconia Prepared by Highâ€Pressure Spark Plasma Sintering. Journal of the American Ceramic Society, 2011, 94, 2981-2986.	1.9	58
26	Lowâ€Temperature Spark Plasma Sintering of Yttria Ceramics with Ultrafine Grain Size. Journal of the American Ceramic Society, 2011, 94, 3301-3307.	1.9	54
27	Highly Infrared Transparent Nanometric Tetragonal Zirconia Prepared by Highâ€Pressure Spark Plasma Sintering. Journal of the American Ceramic Society, 2011, 94, 2739-2741.	1.9	27
28	Fabrication of Transparent Yttria by Highâ€Pressure Spark Plasma Sintering. Journal of the American Ceramic Society, 2011, 94, 3206-3210.	1.9	66
29	Densification behavior of a fine-grained MgAl2O4 spinel during spark plasma sintering (SPS). Scripta Materialia, 2010, 63, 565-568.	2.6	52
30	Effects of Preheating of Powder Before Spark Plasma Sintering of Transparent MgAl₂O₄ Spinel. Journal of the American Ceramic Society, 2010, 93, 2158-2160.	1.9	54
31	Fracture Toughness of a Silica-Doped Cubic Zirconia (8Y-CSZ). Materials Science Forum, 2010, 638-642, 3846-3851.	0.3	1
32	Analysis of Grain-Boundary Sliding with Rotating Hexagonal Particles. Key Engineering Materials, 2010, 433, 305-310.	0.4	1
33	Enhanced Densification and Grain-Size Refinement in Cation-Doped Tetragonal Zirconia. Advances in Science and Technology, 2010, 62, 227-231.	0.2	0
34	Densification Behavior in Spark-Plasma-Sintering of MgAl₂O₄ Spinel. Materials Science Forum, 2010, 654-656, 1986-1989.	0.3	0
35	High-Strain-Rate Superplastic Flow Mechanism in ZrO₂-30vol% Spinel Two-Phase Composite. Key Engineering Materials, 2010, 433, 333-338.	0.4	1
36	Grain Boundary Nanostructure and High Temperature Plastic Flow in Polycrystalline Oxide Ceramics. Materials Science Forum, 2010, 638-642, 1731-1736.	0.3	2

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37	Optical Properties of Transparent MgO-Doped Alumina Fabricated by Spark Plasma Sintering. Materials Science Forum, 2010, 654-656, 2041-2044.	0.3	0
38	Densification Mechanism of MgAl₂O₄ Spinel during Spark-Plasma-Sintering. Advances in Science and Technology, 2010, 63, 62-67.	0.2	1
39	Fabrication of high-strength transparent MgAl₂O₄ spinel polycrystals by optimizing spark-plasma-sintering conditions. Journal of Materials Research, 2009, 24, 2863-2872.	1.2	55
40	Sparkâ€Plasmaâ€Sintering Condition Optimization for Producing Transparent MgAl₂O₄ Spinel Polycrystal. Journal of the American Ceramic Society, 2009, 92, 1208-1216.	1.9	111
41	Effects of heating rate on microstructure and transparency of spark-plasma-sintered alumina. Journal of the European Ceramic Society, 2009, 29, 323-327.	2.8	154
42	Ionic conductivity of tetragonal ZrO2 polycrystal doped with TiO2 and GeO2. Journal of the European Ceramic Society, 2009, 29, 411-418.	2.8	18
43	Microstructure and optical properties of transparent alumina. Acta Materialia, 2009, 57, 1319-1326.	3.8	160
44	Doping amount and temperature dependence of superplastic flow in tetragonal ZrO2 polycrystal doped with TiO2 and/or GeO2. Acta Materialia, 2009, 57, 3029-3038.	3.8	22
45	Viscous grain-boundary sliding with rotating particles or grains. Acta Materialia, 2009, 57, 5730-5738.	3.8	21
46	Densification Behavior of Ti-Doped Polycrystalline Alumina in a Nitrogen-Hydrogen Atmosphere. Materials Transactions, 2009, 50, 1032-1036.	0.4	13
47	Densification of Nanocrystalline Yttria by Low Temperature Spark Plasma Sintering. Journal of the American Ceramic Society, 2008, 91, 1707-1710.	1.9	46
48	Microstructural examination in high-strain-rate superplastically deformed tetragonal ZrO2 dispersed with 30 vol% MgAl2O4 spinel. Journal of Materials Research, 2007, 22, 801-813.	1.2	5
49	Development of High-Strain-Rate Superplastic Oxide Ceramics. Journal of the Ceramic Society of Japan, 2007, 115, 395-401.	1.3	7
50	High-strain-rate superplasticity in oxide ceramics. Science and Technology of Advanced Materials, 2007, 8, 578-587.	2.8	41
51	Spark plasma sintering of transparent alumina. Scripta Materialia, 2007, 57, 607-610.	2.6	245
52	ã,»ãƒ©ãƒŸãƒƒã,¯ææ–™ã«ãŠã'ã,‹é«˜é€Ÿè¶…å¡'æ€§. Materia Japan, 2006, 45, 640-643.	0.1	0
53	Mechanical properties of textured, multilayered alumina produced using electrophoretic deposition in a strong magnetic field. Journal of the European Ceramic Society, 2006, 26, 661-665.	2.8	30
54	Microstructural Design for Attaining High-Strain-Rate Superplasticity in Oxide Materials. Advances in Science and Technology, 2006, 45, 923.	0.2	1

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55	High Temperature Plastic Flow and Ductility in Polycrystalline Oxide Ceramics: Doping Effect and Related Phenomena. Advances in Science and Technology, 2006, 45, 1620-1625.	0.2	0
56	Mechanical Properties of Textured Alumina Prepared by Colloidal Processing in a Strong Magnetic Field. Materials Research Society Symposia Proceedings, 2006, 977, 1.	0.1	0
57	Fracture Toughness of Yttria-Stabilized Cubic Zirconia (8Y-CSZ) Doped with Pure Silica. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2005, 69, 928-932.	0.2	0
58	Microstructural Design for High-Strain-Rate Superplastic Oxide Ceramics. Journal of the Ceramic Society of Japan, 2005, 113, 191-197.	1.3	20
59	High Strain-Rate Superplastic Flow in ZrO₂-30vol% Spinel Composite. Materials Science Forum, 2005, 475-479, 2977-2980.	0.3	4
60	Effect of MgAl2O4 Spinel Dispersion on High-Strain-Rate Superplasticity in Tetragonal ZrO2 Polycrystal. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2005, 69, 356-361.	0.2	0
61	Role of Deformable Fine Spinel Particles in High-Strain-Rate Superplastic Flow of Tetragonal ZrO2. Materials Research Society Symposia Proceedings, 2004, 821, 288.	0.1	0
62	High-Strain Rate Superplastic Zirconia Systems. Key Engineering Materials, 2004, 264-268, 285-288.	0.4	0
63	High-Strain-Rate Superplasticity in 3mol%-Y₂O₃-Stabilized Tetragonal ZrO₂ Dispersed with 30vol% MgAl₂O₄ Spinel. Materials Science Forum, 2004, 447-448, 329-334.	0.3	6
64	Strain Softening and Hardening during Superplasticâ€Like Flow in a Fineâ€Grained MgAl₂O₄Spinel Polycrystal. Journal of the American Ceramic Society, 2004, 87, 1102-1109.	1.9	15
65	Fabrication of high-strain rate superplastic yttria-doped zirconia polycrystals by adding manganese and aluminum oxides. Journal of the European Ceramic Society, 2004, 24, 449-453.	2.8	38
66	Effect of MgAl₂O₄ Spinel Dispersion on High-Strain-Rate Superplasticity in Tetragonal ZrO₂ Polycrystal. Materials Transactions, 2004, 45, 2073-2077.	0.4	11
67	Fracture Toughness of Yttria-Stabilized Cubic Zirconia (8Y-CSZ) Doped with Pure Silica. Materials Transactions, 2004, 45, 3324-3329.	0.4	7
68	Tensile failure in a superplastic alumina. International Journal of Materials Research, 2004, 95, 559-564.	0.8	7
69	Enhanced Superplasticity in Zirconia-Alumina-Spinel Composite Ceramic. Materials Science Forum, 2003, 426-432, 2729-2734.	0.3	5
70	Kinetics of Normal Grain Growth Depending on the Size Distribution of Small Grains. Materials Transactions, 2003, 44, 2239-2244.	0.4	32
71	Microstructure and Superplasticity in Various Zirconia-Dispersed Aluminas.. Journal of the Ceramic Society of Japan, 2002, 110, 927-930.	1.3	1
72	Simulation of cavitation processes in superplastic deformation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 3449-3455.	1.1	0

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73	Highâ€Strainâ€Rate Superplasticity in Y₂O₃â€Stabilized Tetragonal ZrO₂ Dispersed with 30 vol% MgAl₂O₄ Spinel. Journal of the American Ceramic Society, 2002, 85, 1900-1902.	1.9	36
74	Processingâ€Dependent Microstructural Factors Affecting Cavitation Damage and Tensile Ductility in a Superplastic Alumina Dispersed with Zirconia. Journal of the American Ceramic Society, 2002, 85, 2763-2770.	1.9	25
75	Sintering and Ionic Conductivity of CuO-Doped Tetragonal ZrO2 Prepared by Novel Colloidal Processing.. Journal of the Ceramic Society of Japan, 2001, 109, 1004-1009.	1.3	6
76	Effect of cavitation on superplastic flow of 10% zirconia-dispersed alumina. Scripta Materialia, 2001, 45, 61-67.	2.6	8
77	Cavity Formation and Growth in a Superplastic Alumina Containing Zirconia Particles. Materials Science Forum, 2001, 357-359, 193-198.	0.3	5
78	High Temperature Deformation of a Yttria-Stabilized Tetragonal Zirconia. Materials Science Forum, 2001, 357-359, 187-192.	0.3	3
79	Effect of Ultrasonication on the Microstructure and Tensile Elongation of Zirconiaâ€Dispersed Alumina Ceramics Prepared by Colloidal Processing. Journal of the American Ceramic Society, 2001, 84, 2132-2134.	1.9	67
80	Enhanced superplasticity in a alumina-containing zirconia prepared by colloidal processing. Scripta Materialia, 2000, 43, 705-710.	2.6	47
81	Contribution of grain boundary sliding in diffusional creep. Scripta Materialia, 2000, 42, 451-456.	2.6	13
82	Cavity Damage Accumulation in Alumina Doped with Zirconia or Magnesia. Materials Science Forum, 1999, 304-306, 431-436.	0.3	8
83	Superplastic Tensile Ductility in a Zirconia-Dispersed Alumina Produced by Colloidal Processing. Materials Science Forum, 1999, 304-306, 489-494.	0.3	3
84	A grain-boundary diffusion model of dynamic grain growth during superplastic deformation. Acta Materialia, 1999, 47, 3433-3439.	3.8	59
85	Creep Properties of Base Metal and Welded Joint of Hastelloy XR Produced for High-Temperature Engineering Test Reactor in Simulated Primary-Coolant Helium. Journal of Nuclear Science and Technology, 1999, 36, 1160-1166.	0.7	6
86	Preparation Methods and Superplastic Properties of Fine-Grained Zirconia and Alumina Based Ceramics.. Nippon Kagaku Kaishi / Chemical Society of Japan - Chemistry and Industrial Chemistry Journal, 1999, 1999, 497-508.	0.1	33
87	Effect of Ultrasonication on Colloidal Dispersion of Al₂O₃ and ZrO₂ Powders in pH Controlled Suspension. Materials Transactions, JIM, 1998, 39, 689-692.	0.9	25
88	Colloidal Processing for Fine Particles of Al2O3-15vol% ZrO2 System.. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 1997, 44, 356-361.	0.1	12
89	Creep damage in welded joints of a Ni-base heat-resistant alloy Hastelloy XR. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 234-236, 1087-1090.	2.6	1
90	Cavitation Damage Mechanisms in a Superplastic Zirconia (3Y-TZP). Materials Science Forum, 1996, 243-245, 387-392.	0.3	16

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91	Corrosion behavior of Ni-base superalloys at 1373 K in simulated HTGR impure helium gas environment. Journal of Nuclear Materials, 1993, 207, 212-220.	1.3	11
92	High temperature creep damage in steels and superalloys. Steel Research = Archiv FÃ¼r Das EisenhÃ¼ttenwesen, 1993, 64, 449-453.	0.2	3
93	Creep Crack Growth Behavior in Ni-Base Superalloys in 1,273 K Helium Gas Environment. Journal of Nuclear Science and Technology, 1992, 29, 422-426.	0.7	1
94	Creep Rupture Properties of Ni-26 Cr-17 W Alloys with Small amount of B and/or Zr. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1989, 75, 167-174.	0.1	5