

Arthur H Heuer

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98
papers

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99
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3,403
ext. citations

3.5
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L-index

#	Paper	IF	Citations
98	Alcohol Interaction with Zirconia Powders. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 1504-1509	3.8	195
97	Slip and Twinning in Sapphire (Al_2O_3). <i>Journal of the American Ceramic Society</i> , 1994 , 77, 385-397	3.8	178
96	Volatility Diagrams for Silica, Silicon Nitride, and Silicon Carbide and Their Application to High-Temperature Decomposition and Oxidation. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 2789-2803	3.8	162
95	Carbon Additions to Molybdenum Disilicide: Improved High-Temperature Mechanical Properties. <i>Journal of the American Ceramic Society</i> , 1991 , 74, 2704-2706	3.8	134
94	Processing and Sintering of Ultrafine MgO-ZrO_2 and $(\text{MgO}, \text{Y}_2\text{O}_3)\text{-ZrO}_2$ Powders. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 1499-1503	3.8	119
93	Alumina Scale Formation: A New Perspective. <i>Journal of the American Ceramic Society</i> , 2011 , 94, s146-s153	3.8	110
92	Raman Spectra of Vateritic Calcium Carbonate. <i>Spectroscopy Letters</i> , 1995 , 28, 983-995	1.1	94
91	Synthesis of ZrO_2 and Y_2O_3 -Doped ZrO_2 Thin Films Using Self-Assembled Monolayers. <i>Journal of the American Ceramic Society</i> , 2005 , 80, 2967-2981	3.8	93
90	Microstructures of Y_2O_3 -Stabilized ZrO_2 Electron Beam-Physical Vapor Deposition Coatings on Ni-Base Superalloys. <i>Journal of the American Ceramic Society</i> , 1994 , 77, 984-992	3.8	93
89	Crack-Tip Transformation Zones in Toughened Zirconia. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 2659-2666	3.8	83
88	Microstructure of matrix and mineral components of eggshells from White Leghorn chickens (<i>Gallus gallus</i>). <i>Journal of Morphology</i> , 1996 , 228, 287-306	1.6	78
87	Microstructure of 96% Alumina Ceramics: I, Characterization of the As-Sintered Materials. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 3670-3676	3.8	75
86	Indentation Studies on Y_2O_3 -Stabilized ZrO_2 : I, Development of Indentation-Induced Cracks. <i>Journal of the American Ceramic Society</i> , 1994 , 77, 1185-1193	3.8	74
85	Structural and Microstructural Characterization of the Growth Lines and Prismatic Microarchitecture in Red Abalone Shell and the Microstructures of Abalone Flat Pearls. <i>Chemistry of Materials</i> , 2002 , 14, 3106-3117	9.6	69
84	Lattice Diffusion Kinetics in Undoped and Impurity-Doped Sapphire (Al_2O_3): A Dislocation Loop Annealing Study. <i>Journal of the American Ceramic Society</i> , 1989 , 72, 2159-2171	3.8	68
83	Electrical properties of TiO_2 thin films formed on self-assembled organic monolayers on silicon. <i>Journal of Applied Physics</i> , 1998 , 83, 3311-3317	2.5	64
82	Novel Composite Microstructure and Mechanical Behavior of Mollusk Shell. <i>Journal of the American Ceramic Society</i> , 1989 , 72, 2177-2179	3.8	63

81	On the Thermoelastic Martensitic Transformation in Tetragonal Zirconia. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 1084-1093	3.8	59
80	Fracture Toughness, Fracture Strength, and Stress Corrosion Cracking of Silicon Dioxide Thin Films. <i>Journal of Microelectromechanical Systems</i> , 2008 , 17, 943-947	2.5	58
79	Temperature Dependence of Interfacial Shear Strength in SiC-Fiber-Reinforced Reaction-Bonded Silicon Nitride. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 713-720	3.8	57
78	High-Temperature Creep of Yttria-Stabilized Zirconia Single Crystals. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 2452-2456	3.8	55
77	Temperature Dependence of Hardness in Yttria-Stabilized Zirconia Single Crystals. <i>Journal of the American Ceramic Society</i> , 1991 , 74, 491-500	3.8	53
76	Indentation Studies on Y2O3-Stabilized ZrO2: II, Toughness Determination from Stable Growth of Indentation-Induced Cracks. <i>Journal of the American Ceramic Society</i> , 1994 , 77, 1194-1201	3.8	51
75	Microstructure of 96% Alumina Ceramics: III, Crystallization of High-Calcia Boundary Glasses. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 3684-3691	3.8	50
74	Microstructural Evolution in Ca-PSZ and the Room-Temperature Instability of Tetragonal ZrO2. <i>Journal of the American Ceramic Society</i> , 1987 , 70, 214-220	3.8	50
73	Determination of Pipe Diffusion Coefficients in Undoped and Magnesia-Doped Sapphire (Al2O3): A Study Based on Annihilation of Dislocation Dipoles. <i>Journal of the American Ceramic Society</i> , 2003 , 86, 560-65	3.8	42
72	Microstructural Characterization and Fracture Toughness of Cordierite-ZrO2 Glass-Ceramics. <i>Journal of the American Ceramic Society</i> , 1988 , 71, 673-677	3.8	41
71	The Band Structure of Polycrystalline Al2O3 and Its Influence on Transport Phenomena. <i>Journal of the American Ceramic Society</i> , 2016 , 99, 733-747	3.8	35
70	The reaction between a TiNi shape memory thin film and silicon. <i>Journal of Materials Research</i> , 1997 , 12, 1734-1740	2.5	35
69	Microstructural and Microchemical Characterization of Silicon Carbide and Silicon Carbonitride Ceramic Fibers Produced from Polymer Precursors. <i>Journal of the American Ceramic Society</i> , 1988 , 71, 960-969	3.8	35
68	Low-Temperature Ionic Conductivity of 9.4-mol%-Yttria-Stabilized Zirconia Single Crystals. <i>Journal of the American Ceramic Society</i> , 1989 , 72, 1500-1502	3.8	34
67	Eutectoid Decomposition of MgO-Partially-Stabilized ZrO2. <i>Journal of the American Ceramic Society</i> , 1987 , 70, 431-440	3.8	34
66	On the Isothermal Martensitic Transformation in 3Y-TZP. <i>Journal of the American Ceramic Society</i> , 1993 , 76, 1025-1030	3.8	33
65	Microstructure of 96% Alumina Ceramics: II, Crystallization of High-Magnesia Boundary Glasses. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 3677-683	3.8	32
64	Defect Clusters in Nonstoichiometric 3d Transition-Metal Monoxides. <i>Journal of the American Ceramic Society</i> , 1986 , 69, 619-623	3.8	31

63	In Situ Martensitic Transformation in a Ternary MgO-Y ₂ O ₃ -ZrO ₂ Alloy: I, Transformation in Tetragonal ZrO ₂ Grains. <i>Journal of the American Ceramic Society</i> , 1988 , 71, 694-700	3.8	31
62	Morphology of Tetragonal ZrO ₂ in a Ternary (Mg,Y)-PSZ. <i>Journal of the American Ceramic Society</i> , 1987 , 70, 208-13	3.8	30
61	Temperature-Dependent Indentation Behavior of Transformation-Toughened Zirconia-Based Ceramics. <i>Journal of the American Ceramic Society</i> , 1991 , 74, 593-597	3.8	28
60	Microindentation-Induced Transformation in 3.5-mol%-Yttria-Partially-Stabilized Zirconia Single Crystals. <i>Journal of the American Ceramic Society</i> , 1991 , 74, 1071-1081	3.8	27
59	Microhardness and Fracture Toughness Anisotropy in Cubic Zirconium Oxide Single Crystals. <i>Journal of the American Ceramic Society</i> , 1988 , 71, C-332-C-333	3.8	27
58	Numerical Simulations of Carbon and Nitrogen Composition-Depth Profiles in Nitrocarburized Austenitic Stainless Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014 , 45, 4268-4279	2.3	26
57	Structural Evolution and Electrical Properties of Sc ₂ O ₃ -Stabilized ZrO ₂ Aged at 850°C in Air and Wet-Forming Gas Ambients. <i>Journal of the American Ceramic Society</i> , 2008 , 91, 1626-1633	3.8	25
56	Crystallization in a Barium-Containing Magnesium Aluminosilicate Glass-Ceramic. <i>Journal of the American Ceramic Society</i> , 1992 , 75, 1512-1521	3.8	25
55	Indentation-Induced Cracks and the Toughness Anisotropy of 9.4-mol%-Yttria-Stabilized Cubic Zirconia Single Crystals. <i>Journal of the American Ceramic Society</i> , 1991 , 74, 859-862	3.8	23
54	Pyrolysis of self-assembled organic monolayers on oxide substrates. <i>Journal of Materials Research</i> , 1999 , 14, 2116-2123	2.5	22
53	A MEMS-Based Evaluation of the Mechanical Properties of Metallic Thin Films. <i>Journal of Microelectromechanical Systems</i> , 2007 , 16, 650-658	2.5	21
52	Solid-State Diffusive Amorphization in TiO ₂ /ZrO ₂ Bilayers. <i>Journal of the American Ceramic Society</i> , 1996 , 79, 1975-1978	3.8	20
51	Residual-Stress-Induced Grain Pullout in a 96% Alumina. <i>Journal of the American Ceramic Society</i> , 1991 , 74, 646-649	3.8	19
50	Low-Temperature Carburization of the Ni-base Superalloy IN718: Improvements in Surface Hardness and Crevice Corrosion Resistance. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2010 , 41, 2022-2032	2.3	18
49	A high-temperature displacement-sensitive indenter for studying mechanical properties of thermal barrier coatings. <i>Journal of Materials Research</i> , 2004 , 19, 351-356	2.5	18
48	Deposition of Compact Hydrous Aluminum Sulfate Thin Films on Titania Particles Coated with Organic Self-Assembled Monolayers. <i>Chemistry of Materials</i> , 1998 , 10, 2135-2144	9.6	18
47	Carbon Interfacial Layers Formed by Oxidation of SiC in SiC/Ba-Stuffed Cordierite Glass-Ceramic Reaction Couples. <i>Journal of the American Ceramic Society</i> , 1991 , 74, 1663-1667	3.8	18
46	Nanocrystalline Tin Oxide Thin Films via Liquid Flow Deposition. <i>Journal of the American Ceramic Society</i> , 2003 , 86, 2074-2081	3.8	17

45	Chemical Reactions in the Processing of MoSi ₂ Carbon Compacts. <i>Journal of the American Ceramic Society</i> , 1993 , 76, 2005-2009	3.8	15
44	In Situ Martensitic Transformation in a Ternary MgO-Y ₂ O ₃ -ZrO ₂ Alloy: II, Transformation in Tetragonal ZrO ₂ Precipitates. <i>Journal of the American Ceramic Society</i> , 1988 , 71, 701-706	3.8	15
43	International Workshop on the Science of Alumina. <i>Journal of the American Ceramic Society</i> , 1994 , 77, 292-292	3.8	14
42	Anisometric Shape Factors for Ceramic Microstructures. <i>Journal of the American Ceramic Society</i> , 1989 , 72, 517-519	3.8	14
41	Cellular Precipitation at a 17-7 PH Stainless Steel Interphase Interface During Low-Temperature Nitridation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014 , 45, 3578-3585	2.3	13
40	The Calcia-Zirconia Phase Diagram Revisited: Stability of the Ordered Phases β and β' . <i>Journal of the American Ceramic Society</i> , 1991 , 74, 234-237	3.8	13
39	Volatility Diagrams for the Cr-O and Cr-Cl Systems: Application to Removal of Cr ₂ O ₃ -Rich Passive Films on Stainless Steel. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2012 , 43, 1187-1201	2.5	12
38	An Unusual Twin Structure in Transformed Precipitates in Y-PSZ Single Crystals. <i>Journal of the American Ceramic Society</i> , 1994 , 77, 57-64	3.8	12
37	A 3rd Generation Advanced High-Strength Steel (AHSS) Produced by Dual Stabilization Heat Treatment (DSHT). <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013 , 44, 4450-4453	2.3	11
36	Microstructural Shape Factors: Relation of Random Planar Sections to Three-Dimensional Microstructures. <i>Journal of the American Ceramic Society</i> , 1995 , 78, 1532-1536	3.8	11
35	Devitrification of the Grain Boundary Glassy Phase in a High-Alumina Ceramic Substrate. <i>Journal of the American Ceramic Society</i> , 1994 , 77, 2593-2598	3.8	10
34	Thin-Foil Phase Transformations of Tetragonal ZrO ₂ in a ZrO ₂ -8 wt% Y ₂ O ₃ Alloy. <i>Journal of the American Ceramic Society</i> , 1988 , 71, 826-831	3.8	10
33	Fracture Mechanics of High-Toughness Magnesia-Partially-Stabilized Zirconia. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 2023-2031	3.8	9
32	Surface Microstructure Changes on Laser Treatment of MgO-Partially-Stabilized Zirconia. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 1519-1523	3.8	9
31	Annealing of Test Specimens of High-Toughness Magnesia-Partially-Stabilized Zirconia. <i>Journal of the American Ceramic Society</i> , 1988 , 71, C-2-C-6	3.8	9
30	Growth Stresses in Thermally Grown Oxides on Nickel-Based Single-Crystal Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016 , 47, 1132-1142	2.3	8
29	Concentration-Dependent Carbon Diffusivity in Austenite. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014 , 45, 3790-3799	2.3	8
28	The Effect of Surface Finish on Low-Temperature Acetylene-Based Carburization of 316L Austenitic Stainless Steel. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2014 , 45, 2338-2345	2.5	7

27	Erratum to Alumina Scale Formation: A New Perspective <i>Journal of the American Ceramic Society</i> , 2011 , 94, 2698-2698	3.8	7
26	Microstructural Characterization of Cofired Tungsten-Metallized High-Alumina Electronic Substrates. <i>Journal of the American Ceramic Society</i> , 1992 , 75, 2815-2824	3.8	7
25	Comment on Direct Observation of Crack-Tip Geometry of SiO ₂ Glass by High-Resolution Electron Microscopy <i>Journal of the American Ceramic Society</i> , 1984 , 67, c253-c253	3.8	7
24	Low-Temperature Carburization of AL-6XN Enabled by Provisional Passivation. <i>Metals</i> , 2018 , 8, 997	2.3	7
23	Strong cellular lattices with nitro-carburized stainless steel hollow trusses. <i>International Journal of Materials Research</i> , 2016 , 107, 57-77	0.5	6
22	Precipitate Morphology in Ternary MgO,CaO-Partially-Stabilized Zirconias. <i>Journal of the American Ceramic Society</i> , 1993 , 76, 833-840	3.8	6
21	Residual Displacement Effects During Crack Propagation in High-Toughness Magnesia-Partially-Stabilized Zirconia. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 2016-2022	3.8	6
20	The Formation of Martensitic Austenite During Nitridation of Martensitic and Duplex Stainless Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017 , 48, 8-13	2.3	5
19	Thermally Activated Martensitic Transformations in Mg-PSZ. <i>Journal of the American Ceramic Society</i> , 1996 , 79, 895-905	3.8	5
18	Deformation Twinning in Single-Crystal Monoclinic Zirconia: A First Report. <i>Journal of the American Ceramic Society</i> , 1992 , 75, 2302-2303	3.8	5
17	Oxidation Behavior of Ni ₃ Al-Based Ni ₃ AlCr Alloys With and Without Reactive Elements Under Different Heating Conditions. <i>Oxidation of Metals</i> , 2019 , 92, 137-150	1.6	4
16	Initial Stages of Na ₂ SO ₄ -Induced Degradation of Ni ₃ Al at 700 °C: I-Intrinsic Behavior. <i>Oxidation of Metals</i> , 2017 , 88, 649-667	1.6	2
15	Recovery of Crack-Tip Transformation Zones in Zirconia After High-Temperature Annealing. <i>Journal of the American Ceramic Society</i> , 1992 , 75, 474-476	3.8	2
14	Orientation Mapping by Precession Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2015 , 21, 1661-1662	0.5	1
13	Manganese Oxide Formation in Lanthanum Strontium Manganite-Yttria-Stabilized Zirconia SOFC Cathodes. <i>Metallurgical and Materials Transactions E</i> , 2014 , 1, 263-271		1
12	Comment on Crystallographic Analysis of the Cubic-to-Tetragonal Phase Transformation in the ZrO ₂ -Y ₂ O ₃ System <i>Journal of the American Ceramic Society</i> , 1988 , 71, C-170-C-171	3.8	1
11	Splicing Factor 3b Subunit 1 (SF3B1) mediates Mitochondrial Iron Overload In Myelodysplastic Syndromes With Ring Sideroblasts By Alternative Splicing Of Mitoferrin-1 (SLC25A37). <i>Blood</i> , 2013 , 122, 1555-1555	2.2	1
10	A high-temperature displacement-sensitive indenter for studying mechanical properties of thermal barrier coatings 2004 , 19, 351		1

- 9 Rapid Alloy Surface Engineering through Closed-Vessel Reagent Pyrolysis. *Metals*, **2021**, 11, 1764 2.3 1
- 8 Artwork Reproduction in the Journal. *Journal of the American Ceramic Society*, **1995**, 78, 1427-1430 3.8
- 7 Precipitate Coarsening by Liquid Film Migration in (Mg,Ca)-PSZ's. *Journal of the American Ceramic Society*, **1994**, 77, 2657-2662 3.8
- 6 Editorial Comments on Paper by W. D. Kingery, et al.. *Journal of the American Ceramic Society*, **1992**, 75, 489-491 3.8
- 5 Reply to Comment on The Calcia-Zirconia Phase Diagram Revisited: Stability of the Ordered Phases 1 and 2. *Journal of the American Ceramic Society*, **1992**, 75, 733-733 3.8
- 4 A. R. Cooper Symposium on Glass Science and Technology. *Journal of the American Ceramic Society*, **1993**, 76, 1076-1076 3.8
- 3 Alfred R. Cooper's Contributions to Glass Science and Technology. *Journal of the American Ceramic Society*, **1993**, 76, 1077-1080 3.8
- 2 Symposium for Electronic Structure of Ceramics. *Journal of the American Ceramic Society*, **1990**, 73, 3133-3133 3.8
- 1 On the formation of arrays of micro-tunnels in pyrope and almandine garnets. *American Mineralogist*, **2021**, 106, 1026-1029 2.9