

Arthur H Heuer

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

98
papers

3,225
citations

33
h-index

54
g-index

99
ext. papers

3,403
ext. citations

3.5
avg, IF

4.72
L-index

#	Paper	IF	Citations
98	Rapid Alloy Surface Engineering through Closed-Vessel Reagent Pyrolysis. <i>Metals</i> , 2021 , 11, 1764	2.3	1
97	On the formation of arrays of micro-tunnels in pyrope and almandine garnets. <i>American Mineralogist</i> , 2021 , 106, 1026-1029	2.9	
96	Oxidation Behavior of γ -Ni3Al-Based Ni ₂₀ Al ₈ Cr Alloys With and Without Reactive Elements Under Different Heating Conditions. <i>Oxidation of Metals</i> , 2019 , 92, 137-150	1.6	4
95	Low-Temperature Carburization of AL-6XN Enabled by Provisional Passivation. <i>Metals</i> , 2018 , 8, 997	2.3	7
94	Initial Stages of Na ₂ SO ₄ -Induced Degradation of ENiB6Al at 700 °C: I-Intrinsic Behavior. <i>Oxidation of Metals</i> , 2017 , 88, 649-667	1.6	2
93	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
92	The Band Structure of Polycrystalline Al ₂ O ₃ and Its Influence on Transport Phenomena. <i>Journal of the American Ceramic Society</i> , 2016 , 99, 733-747	3.8	35
91	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
90	Strong cellular lattices with nitro-carburized stainless steel hollow trusses. <i>International Journal of Materials Research</i> , 2016 , 107, 57-77	0.5	6
89	Orientation Mapping by Precession Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2015 , 21, 1661-1662	0.5	1
88	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
87	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
86	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
85	Manganese Oxide Formation in Lanthanum Strontium Manganite-Yttria-Stabilized Zirconia SOFC Cathodes. <i>Metallurgical and Materials Transactions E</i> , 2014 , 1, 263-271		1
84	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
83	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
82	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

81	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
80	Alumina Scale Formation: A New Perspective. <i>Journal of the American Ceramic Society</i> , 2011 , 94, s146-s153	3.8	110
79	Erratum to Alumina Scale Formation: A New Perspective. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 2698-2698	3.8	7
78	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
77	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
76	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
75	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
74	Synthesis of ZrO ₂ and Y ₂ O 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
73	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
72	A high-temperature displacement-sensitive indenter for studying mechanical properties of thermal barrier coatings 2004 , 19, 351		1
71	Determination of Pipe Diffusion Coefficients in Undoped and Magnesia-Doped Sapphire (Al ₂ O ₃): A Study Based on Annihilation of Dislocation Dipoles. <i>Journal of the American Ceramic Society</i> , 2003 , 86, 560-65	3.8	42
70	Nanocrystalline Tin Oxide Thin Films via Liquid Flow Deposition. <i>Journal of the American Ceramic Society</i> , 2003 , 86, 2074-2081	3.8	17
69	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
68	Pyrolysis of self-assembled organic monolayers on oxide substrates. <i>Journal of Materials Research</i> , 1999 , 14, 2116-2123	2.5	22
67	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
66	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
65	The reaction between a TiNi shape memory thin film and silicon. <i>Journal of Materials Research</i> , 1997 , 12, 1734-1740	2.5	35
64	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

63	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
62	Thermally Activated Martensitic Transformations in Mg-PSZ. <i>Journal of the American Ceramic Society</i> , 1996 , 79, 895-905	3.8	5
61	Artwork Reproduction in the Journal. <i>Journal of the American Ceramic Society</i> , 1995 , 78, 1427-1430	3.8	
60	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
59	Raman Spectra of Vateritic Calcium Carbonate. <i>Spectroscopy Letters</i> , 1995 , 28, 983-995	1.1	94
58	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
57	Precipitate Coarsening by Liquid Film Migration in (Mg,Ca)-PSZ's. <i>Journal of the American Ceramic Society</i> , 1994 , 77, 2657-2662	3.8	
56	Indentation Studies on Y ₂ O 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
55	Indentation Studies on Y ₂ O ₃ -Stabilized ZrO ₂ : 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
54	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
53	International Workshop on the Science of Alumina. <i>Journal of the American Ceramic Society</i> , 1994 , 77, 292-292	3.8	14
52	Slip and Twinning in Sapphire (Al ₂ O ₃). <i>Journal of the American Ceramic Society</i> , 1994 , 77, 385-397	3.8	178
51	Microstructures of Y ₂ O 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
50	A. R. Cooper Symposium on Glass Science and Technology. <i>Journal of the American Ceramic Society</i> , 1993 , 76, 1076-1076	3.8	
49	Alfred R. Cooper's Contributions to Glass Science and Technology. <i>Journal of the American Ceramic Society</i> , 1993 , 76, 1077-1080	3.8	
48	Precipitate Morphology in Ternary MgO,CaO-Partially-Stabilized Zirconias. <i>Journal of the American Ceramic Society</i> , 1993 , 76, 833-840	3.8	6
47	On the Isothermal Martensitic Transformation in 3Y-TZP. <i>Journal of the American Ceramic Society</i> , 1993 , 76, 1025-1030	3.8	33
46	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

45	Crystallization in a Barium-Containing Magnesium Aluminosilicate Glass-Ceramic. <i>Journal of the American Ceramic Society</i> , 1992 , 75, 1512-1521	3.8	25
44	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
43	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
42	Editorial Comments on Paper by W. D. Kingery, et al.. <i>Journal of the American Ceramic Society</i> , 1992 , 75, 489-491	3.8	
41	Reply to Comment on "The Calcia-Zirconia Phase Diagram Revisited: Stability of the Ordered Phases β and β' ". <i>Journal of the American Ceramic Society</i> , 1992 , 75, 733-733	3.8	
40	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
39	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
38	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
37	Residual-Stress-Induced Grain Pullout in a 96% Alumina. <i>Journal of the American Ceramic Society</i> , 1991 , 74, 646-649	3.8	19
36	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
35	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
34	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
33	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
32	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
31	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
30	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
29	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
28	On the Thermoelastic Martensitic Transformation in Tetragonal Zirconia. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 1084-1093	3.8	59

27	Fracture Mechanics of High-Toughness Magnesia-Partially-Stabilized Zirconia. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 2023-2031	3.8	9
26	Symposium for Electronic Structure of Ceramics. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 3133-3133		
25	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
24	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 ¹⁶²	3.8	162
23	Crack-Tip Transformation Zones in Toughened Zirconia. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 2659-2666	3.8	83
22	High-Temperature Creep of Yttria-Stabilized Zirconia Single Crystals. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 2452-2456	3.8	55
21	Processing and Sintering of Ultrafine MgO-ZrO ₂ and (MgO, Y ₂ O ₃)-ZrO ₂ Powders. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 1499-1503	3.8	119
20	Alcohol Interaction with Zirconia Powders. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 1504-1509	3.8	195
19	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
18	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
17	Lattice Diffusion Kinetics in Undoped and Impurity-Doped Sapphire (Al ₂ O ₃): A Dislocation Loop Annealing Study. <i>Journal of the American Ceramic Society</i> , 1989 , 72, 2159-2171	3.8	68
16	Novel Composite Microstructure and Mechanical Behavior of Mollusk Shell. <i>Journal of the American Ceramic Society</i> , 1989 , 72, 2177-2179	3.8	63
15	Anisometric Shape Factors for Ceramic Microstructures. <i>Journal of the American Ceramic Society</i> , 1989 , 72, 517-519	3.8	14
14	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
13	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
12	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
11	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
10	Microstructural Characterization and Fracture Toughness of Cordierite-ZrO ₂ Glass-Ceramics. <i>Journal of the American Ceramic Society</i> , 1988 , 71, 673-677	3.8	41

9	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
8	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
7	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
6	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
5	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
4	Microstructural Evolution in Ca-PSZ and the Room-Temperature Instability of Tetragonal ZrO ₂ . <i>Journal of the American Ceramic Society</i> , 1987 , 70, 214-220	3.8	50
3	Eutectoid Decomposition of MgO-Partially-Stabilized ZrO ₂ . <i>Journal of the American Ceramic Society</i> , 1987 , 70, 431-440	3.8	34
2	Defect Clusters in Nonstoichiometric 3d Transition-Metal Monoxides. <i>Journal of the American Ceramic Society</i> , 1986 , 69, 619-623	3.8	31
1	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