John Morris

List of Publications by Year
in descending order

55 papers	2,115 citations	279798 23 h-index	233421 45 g-index
57 all docs	57 docs citations	57 times ranked	1478 citing authors

#	Article	IF	Citations
1	Defect reconfiguration in a Tiâ€“Al alloy via electroplasticity. Nature Materials, 2021, 20, 468-472.	27.5	142
2	Elimination of oxygen sensitivity in Î±-titanium by substitutional alloying with Al. Nature Communications, 2021, 12, 6158.	12.8	41
3	Mechanistic basis of oxygen sensitivity in titanium. Science Advances, 2020, 6, .	10.3	59
4	Direct imaging of short-range order and its impact on deformation in Ti-6Al. Science Advances, 2019, 5, eaax2799.	10.3	86
5	Making steel strong and cheap. Nature Materials, 2017, 16, 787-789.	27.5	51
6	An Investigation Into 6-Fold Symmetry in Martensitic Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 5266-5270.	2.2	1
7	Origin of dramatic oxygen solute strengthening effect in titanium. Science, 2015, 347, 635-639.	12.6	255
8	Electronic Origins of Anomalous Twin Boundary Energies in Hexagonal Close Packed Transition Metals. Physical Review Letters, 2015, 115, 065501.	7.8	23
9	The Influence of Sn Orientation on Intermetallic Compound Evolution in Idealized Sn-Ag-Cu 305 Interconnects: an Electron Backscatter Diffraction Study of Electromigration. Journal of Electronic Materials, 2014, 43, 43-51.	2.2	13
10	Mechanisms of Creep Deformation in Pure Sn Solder Joints. Journal of Electronic Materials, 2013, 42, 516-526.	2.2	14
11	Nanomechanical Testing of Gum Metal. Experimental Mechanics, 2010, 50, 37-45.	2.0	13
12	The Interaction Between an Imposed Current and the Creep of Idealized Sn-Ag-Cu Solder Interconnects. Journal of Electronic Materials, 2009, 38, 2585-2591.	2.2	22
13	Stronger, Tougher Steels. Science, 2008, 320, 1022-1023.	12.6	112
14	The correlation between stress relaxation and steady-state creep of eutectic Sn-Pb. Journal of Electronic Materials, 2005, 34, 1287-1300.	2.2	7
15	Study of Deformation Behavior of Ultrafine-grained Materials Through in Situ Nanoindentation in a Transmission Electron Microscope. Journal of Materials Research, 2005, 20, 1735-1740.	2.6	17
16	Dislocationâ€“grain boundary interactions in martensitic steel observed through in situ nanoindentation in a transmission electron microscope. Journal of Materials Research, 2004, 19, 3626-3632.	2.6	127
17	Validation of predicted precipitate compositions in Al-Si-Ge. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 2305-2311.	2.2	6
18	Development and elemental powder metallurgy of a Y-containing two-phase TiAl alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 2077.	2.2	13

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19	The creep properties of lead-free solder joints. Jom, 2002, 54, 30-32.	1.9	97
20	In-situ transmission electron microscopy study of the nanoindentation behavior of Al. Journal of Electronic Materials, 2002, 31, 958-964.	2.2	47
21	A Method for Extracting Quantitative Data Duringin-situTEM Nanoindentation. Materials Research Society Symposia Proceedings, 2001, 695, 1.	0.1	1
22	Precipitation and aging in Al-Si-Ge-Cu. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 197-199.	2.2	31
23	Auâ^'Niâ^'Sn intermetallic phase relationships in eutectic Pbâ^'Sn solder formed on Ni/Au metallization. Journal of Electronic Materials, 2001, 30, 409-414.	2.2	39
24	The microstructure of eutectic Au-Sn solder bumps on Cu/electroless Ni/Au. Journal of Electronic Materials, 2001, 30, 1083-1087.	2.2	70
25	Growth of a Au-Ni-Sn intermetallic compound on the solder-substrate interface after aging. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2000, 31, 798-800.	2.2	82
26	Inhibiting growth of the Au0.5Ni0.5Sn4 intermetallic layer in Pb-Sn solder joints reflowed on Au/Ni metallization. Journal of Electronic Materials, 2000, 29, 1170-1174.	2.2	65
27	The microstructure of ultrafine eutectic Au-Sn solder joints on Cu. Journal of Electronic Materials, 2000, 29, 1038-1046.	2.2	35
28	Catalyzed precipitation in Al-Cu-Si. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2000, 31, 2697-2711.	2.2	46
29	The creep behavior of In-Ag eutectic solder joints. Journal of Electronic Materials, 1999, 28, 69-75.	2.2	19
30	Electromigration Failure Kinetics in Al Alloy Lines: A Microstructure-Based Constitutive Equation. Materials Research Society Symposia Proceedings, 1998, 516, 129.	0.1	0
31	Metallurgical Control of the Ductile-Brittle Transition in High-Strength Structural Steels. Materials Research Society Symposia Proceedings, 1998, 539, 23.	0.1	4
32	Influence of Solute Additions on Electromigration in Aluminum. Materials Research Society Symposia Proceedings, 1996, 428, 213.	0.1	2
33	Further Investigations of the Microstructural Mechanism of Electromigration Failure in Al-Cu Lines with Quasi-Bamboo Microstructures. Materials Research Society Symposia Proceedings, 1996, 428, 255.	0.1	2
34	Computer simulation of reversible martensitic transformations. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1996, 27, 1187-1201.	2.2	3
35	Mechanism of Electromigration Failure in Al Thin Film Interconnects Containing Sc. Materials Research Society Symposia Proceedings, 1995, 391, 289.	0.1	0
36	Microstructural Control of Internal Electromigration Failure in Narrow Al-Cu-Si Lines. Materials Research Society Symposia Proceedings, 1995, 391, 353.	0.1	4

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37	The Influence of Grain Structure on the Reliability of Narrow Al-Based Interconnects. Materials Research Society Symposia Proceedings, 1995, 391, 385.	0.1	1
38	Computer simulation of martensitic transformations in constrained, two-dimensional crystals under external stress. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1993, 24, 1281-1294.	2.2	12
39	Microstructural Mechanism of Electromigration Failure In Narrow Interconnects. Materials Research Society Symposia Proceedings, 1993, 309, 127.	0.1	11
40	Microstructural Analysis of Electromigration-Induced Voids and Hillocks. Materials Research Society Symposia Proceedings, 1991, 225, 53.	0.1	16
41	Î˜ CuAl‹sub›2‹/sub› Precipitate Coarsening in Al-2% Cu Thin Films. Materials Research Society Symposia Proceedings, 1991, 230, 67.	0.1	7
42	Aging characteristics of electron beam and gas tungsten arc fusion zones of Al-Cu-Li alloy 2090. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1991, 22, 903-913.	1.4	8
43	Effects of cooling rate on mechanical properties of near-eutectic tin-lead solder joints. Journal of Electronic Materials, 1991, 20, 599-608.	2.2	68
44	The relationship between toughness and microstructure in Fe-high Mn binary alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1991, 18, 1073-1081.	1.4	0
45	Application of Superplasticity in Solder Joints. Materials Research Society Symposia Proceedings, 1990, 203, 425.	0.1	0
46	Creep in Shear of Experimental Solder Joints. Journal of Electronic Packaging, Transactions of the ASME, 1990, 112, 87-93.	1.8	31
47	Morphology of electromigration-induced damage and failure in Al alloy thin film conductors. Journal of Electronic Materials, 1990, 19, 1213-1220.	2.2	82
48	Superplastic creep of eutectic tinlead solder joints. Journal of Electronic Materials, 1990, 19, 1273-1280.	2.2	35
49	Theoretical investigation of the precipitation of Î″ in Al-Li. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1988, 19, 249-258.	1.4	186
50	A MÃ¶ssbauer spectrometry study of the mechanical transformation of precipitated austenite in 6Ni steel. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1985, 16, 173-177.	1.4	4
51	A MÃ¶ssbauer spectrometry study of the mechanical transformation of precipitated austenite in 6Ni steel. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1985, 16, 173-177.	1.4	10
52	The use of Phase Transformations in the Design of Alloy Steel. Materials Research Society Symposia Proceedings, 1983, 21, 713.	0.1	0
53	A MÃ–ssbauer Study of Microstructural and Chemical Changes in FE-9NI Steel During Two-Phase Tempering. Materials Research Society Symposia Proceedings, 1980, 3, 377.	0.1	0
54	Precipitation-strengthened austenitic Feâ^'Mnâ^'Ti alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1979, 10, 1377-1387.	1.4	4

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55	Cryogenic fracture toughness of 9Ni steel enhanced through grain refinement. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1976, 7, 1827-1832.	1.4	44