Junghyun Cho

List of Publications by Year
in descending order

74 papers	1,413 citations	331670 21 h-index	361022 35 g-index
74 all docs	74 docs citations	74 times ranked	1240 citing authors

#	Article	IF	Citations
1	Effect of Yttrium and Lanthanum on the Tensile Creep Behavior of Aluminum Oxide. Journal of the American Ceramic Society, 1997, 80, 1013-1017.	3.8	183
2	Role of segregating dopants on the improved creep resistance of aluminum oxide. Acta Materialia, 1999, 47, 4197-4207.	7.9	141
3	Photocatalytic TiO2 nanomaterials as potential antimicrobial and antiviral agents: Scope against blocking the SARS-COV-2 spread. Micro and Nano Engineering, 2022, 14, 100100.	2.9	77
4	Hydrothermal synthesis of TiO2 nanorods: formation chemistry, growth mechanism, and tailoring of surface properties for photocatalytic activities. Materials Today Chemistry, 2021, 20, 100428.	3.5	65
5	Evaluation of Die Stress in MEMS Packaging: Experimental and Theoretical Approaches. IEEE Transactions on Components and Packaging Technologies, 2006, 29, 735-742.	1.3	62
6	Atomic structural environment of grain boundary segregated Y and Zr in creep resistant alumina from EXAFS. Acta Materialia, 1999, 47, 3411-3422.	7.9	55
7	TiO2 nanoflower photocatalysts: Synthesis, modifications and applications in wastewater treatment for removal of emerging organic pollutants. Environmental Research, 2022, 212, 113550.	7.5	47
8	Scanning Transmission Electron Microscopy Analysis of Grain Boundaries in Creepâ€Resistant Yttriumâ€• and Lanthanumâ€Doped Alumina Microstructures. Journal of the American Ceramic Society, 1999, 82, 2865-2870.	3.8	45
9	Influence of Yttrium Doping on Grain Misorientation in Aluminum Oxide. Journal of the American Ceramic Society, 1998, 81, 3001-3004.	3.8	43
10	Enhanced mechanical properties of polyurethane composite coatings through nanosilica addition. Progress in Organic Coatings, 2016, 90, 243-251.	3.9	43
11	A kinetic Monte Carlo simulation of film growth by physical vapor deposition on rotating substrates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 391, 390-401.	5.6	42
12	Effect of Oxidation on Indium Solderability. Journal of Electronic Materials, 2008, 37, 483-489.	2.2	41
13	Microstructure Evolution and the Constitutive Relations of High-Temperature Solders. Journal of Electronic Materials, 2009, 38, 802-809.	2.2	35
14	Oxidation and reduction behavior of pure indium. Journal of Materials Research, 2009, 24, 386-393.	2.6	32
15	Buckling and Ferromagnetism of Aligned Cr-Doped ZnO Nanorods. Journal of Physical Chemistry C, 2008, 112, 19236-19241.	3.1	31
16	Effects of curing conditions on structural evolution and mechanical properties of UV-curable polyurethane acrylate coatings. Progress in Organic Coatings, 2018, 114, 58-67.	3.9	30
17	Improved tensile creep properties of yttrium- and lanthanum-doped alumina: a solid solution effect. Journal of Materials Research, 2001, 16, 425-429.	2.6	29
18	Titanium Oxide Nanoparticles Precipitated from Lowâ€Temperature Aqueous Solutions: I. Nucleation, Growth, and Aggregation. Journal of the American Ceramic Society, 2008, 91, 3875-3882.	3.8	28

#	Article	IF	Citations
19	Modeling of Grainâ€Boundary Segregation Behavior in Aluminum Oxide. Journal of the American Ceramic Society, 2000, 83, 344-352.	3.8	22
20	Low temperature processed SnO2 films using aqueous precursor solutions. Ceramics International, 2013, 39, 143-151.	4.8	22
21	Mineralization of flagella for nanotube formation. Materials Science and Engineering C, 2009, 29, 2282-2286.	7.3	21
22	A biomimetic approach to the deposition of ZrO2 films on self-assembled nanoscale templates. Materials Science and Engineering C, 2006, 26, 1344-1350.	7.3	18
23	Enhancing the oxidation resistance of copper by using sandblasted copper surfaces. Applied Surface Science, 2015, 357, 2160-2168.	6.1	18
24	Improved adhesion of polyurethane-based nanocomposite coatings to tin surface through silane coupling agents. International Journal of Adhesion and Adhesives, 2021, 110, 102948.	2.9	17
25	Effect of alloying elements on the creep behavior of high Pb-based solders. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 1063-1070.	5.6	15
26	Titanium Oxide Nanoparticles Precipitated from Low-Temperature Aqueous Solutions: III. Thin Film Properties. Journal of the American Ceramic Society, 2012, 95, 676-683.	3.8	13
27	Electron beam irradiation effect on the mechanical properties of nanosilica-filled polyurethane films. Polymer Degradation and Stability, 2017, 141, 45-53.	5.8	13
28	Hydrothermally-grown nanostructured anatase TiO2 coatings tailored for photocatalytic and antibacterial properties. Ceramics International, 2019, 45, 23216-23224.	4.8	13
29	Strong P-band emission and third harmonic generation from ZnO nanorods. Solid State Communications, 2012, 152, 1241-1243.	1.9	12
30	Microstructure developments of F-doped SiO2 thin films prepared by liquid phase deposition. Thin Solid Films, 2012, 520, 1718-1723.	1.8	11
31	Improved adhesion of polyurethane-based coatings to tin surface. Journal of Materials Science: Materials in Electronics, 2019, 30, 7268-7279.	2.2	11
32	Microstructure and mechanical properties of ceramic/self-assembled monolayer bilayer coatings. Journal of Electronic Materials, 2005, 34, 528-533.	2.2	10
33	Growth kinetics of bismuth nickel intermetallics. Journal of Materials Science: Materials in Electronics, 2018, 29, 19034-19042.	2.2	10
34	Development of Conformal PDMS and Parylene Coatings for Microelectronics and MEMS Packaging. , 2005, , 279.		9
35	Titanium Oxide Nanoparticles Precipitated from Lowâ€Temperature Aqueous Solutions: II. Thinâ€Film Formation and Microstructure Developments. Journal of the American Ceramic Society, 2010, 93, 1909-1915.	3.8	9
36	Bismuth-Based Transient Liquid Phase (TLP) Bonding as High-Temperature Lead-Free Solder Alternatives. , 2017, , .		9

#	Article	IF	Citations
37	Effective charge collection area during conductive and photoconductive atomic force microscopy. Applied Physics Letters, 2018, 112, .	3.3	9
38	Effect of coating adhesion and degradation on tin whisker mitigation of polyurethane-based conformal coatings. Polymer Degradation and Stability, 2019, 166, 219-229.	5.8	9
39	Electrodeposition of Titania Thin Films on Metallic Surface for Highâ€k Dielectric Applications. Journal of the American Ceramic Society, 2010, 93, 774-781.	3.8	8
40	Dielectric Properties of Solutionâ€Deposited Crystalline Barium Titanate Thin Films. Journal of the American Ceramic Society, 2012, 95, 1189-1192.	3.8	8
41	Developments of high-Bi alloys as a high temperature Pb-free solder. , 2014, , .		8
42	Toward a better understanding of synthesis and processing of ceramic/self-assembled monolayer bilayer coatings. Journal of Electronic Materials, 2005, 34, 534-540.	2.2	7
43	Ultrahigh photosensitivity of the polar surfaces of single crystalline ZnO nanoplates. Nanoscale, 2018, 10, 6801-6805.	5.6	7
44	Lead-Free Alternatives for Interconnects in High-Temperature Electronics. Journal of Electronic Packaging, Transactions of the ASME, 2018, 140, .	1.8	7
45	Microstructure development of hydrothermally grown TiO₂ thin films with vertically aligned nanorods. Journal of the American Ceramic Society, 2018, 101, 50-60.	3.8	6
46	Exploring Bismuth as a New Pb-Free Alternative for High Temperature Electronics. , 2016, , .		5
47	Aging Studies of Cuâ€“Sn Intermetallics in Cu Micropillars Used in Flip Chip Attachment onto Cu Lead Frames. Journal of Electronic Materials, 2018, 47, 1694-1704.	2.2	5
48	Nanoscale Insight into Performance Loss Mechanisms in P3HT:ZnO Nanorod Solar Cells. ACS Applied Energy Materials, 2018, 1, 6172-6180.	5.1	5
49	Effects of bismuth and nickel on the microstructure evolution of Sn-Ag-Cu (SAC)-based solders. Materials Today Communications, 2021, 26, 101787.	1.9	5
50	Effects of Microstructure Evolution on High-Temperature Mechanical Deformation of 95Sn-5Sb. , 2008, , .		4
51	Properties of Liquidâ€Phase Deposited Silica Films for Lowâ€k Dielectric Applications. Journal of the American Ceramic Society, 2009, 92, 2388-2391.	3.8	4
52	Developments of Bi-Sb-Cu alloys as a high-temperature Pb-free solder. , 2015, , .		4
53	Hierarchical Organization of TiO₂ Nanostructures in Lowâ€Temperature Solution Processes. Journal of the American Ceramic Society, 2016, 99, 431-439.	3.8	4
54	Tailoring of Stress Development in MEMS Packaging Systems. Materials Research Society Symposia Proceedings, 2002, 741, 5221.	0.1	3

#	Article	IF	Citations
55	Vertically Aligned ZnO Nanorods Grown by Low-Temperature Solution Processing. Japanese Journal of Applied Physics, 2013, 52, 05DA09.	1.5	3
56	Superplasticity from viscous flow in high Pb ternary alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 658, 210-220.	5.6	3
57	Long-term thermal aging of parylene conformal coating under high humidity and its effects on tin whisker mitigation. Polymer Degradation and Stability, 2021, 191, 109667.	5.8	3
58	Developments of Low-Temperature Solution Processing for Nanostructured Titania Dielectric Films. Science of Advanced Materials, 2010, 2, 90-101.	0.7	3
59	A Nanoindentation Study of Thermally-Grown-Oxide Films on Silicon. Materials Research Society Symposia Proceedings, 2004, 841, R12.10.1.	0.1	2
60	Constitutive Relations of High Temperature Solders. , 2007, , 201.		2
61	Inorganic-Organic Barrier Coatings for Flexible OLED Applications. , 2008, , .		2
62	Parylene-PDMS Bilayer Coatings for Microelectronic and MEMS Packaging. Materials Research Society Symposia Proceedings, 2006, 968, 1.	0.1	1
63	Thermodynamics and Kinetics of Oxidation of Pure Indium Solders. Materials Research Society Symposia Proceedings, 2006, 968, 1.	0.1	1
64	Effects of the Interlayer Thickness and Alloying on the Reliability of Transient Liquid Phase (TLP) Bonding. , 2018, , .		1
65	Structural Evolution and Mechanical Behavior of Bio-inspired Oxide Films on Self-Assembled Organic Layers. Materials Research Society Symposia Proceedings, 2006, 975, 1.	0.1	1
66	Influence of Second Phase Particles on Thermal Conductivity of Bi Alloys. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2022, 12, 502-511.	2.5	1
67	Development of Protective Coatings for Silicon Devices. , 2003, , 373.		0
68	Mechanical Behavior of Ceramic/SAM Bilayer Coatings. Materials Research Society Symposia Proceedings, 2004, 844, 1.	0.1	0
69	Nanostructured Ceramic Film Formation on Self-Assembled Monolayers via a Biomimetic Approach. Materials Research Society Symposia Proceedings, 2005, 901, 1.	0.1	0
70	Protection From Oxygen and Moisture Via Thin Oxide Barrier Coating for Organic Electronics. , 2007, , 209.		0
71	Aligned Carbon Nanotube Polymer Composites. , 2007, , .		0
72	Polyimide Flex Circuitry for >200C. , 0, , .		0

#	Article	IF	Citations
73	Process Developments in Transient Liquid Phase Bonding of Bi-Ni for High-Temperature Pb-Free Solder Alternatives. , 2021, , .		0
74	Metallurgical Aspects of Wire Bonds. , 2019, , 179-204.		0