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	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
2	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
3	TiO2 nanoflower photocatalysts: Synthesis, modifications and applications in wastewater treatment for removal of emerging organic pollutants. Environmental Research, 2022, 212, 113550.	7.5	47
4	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
5	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
6	Process Developments in Transient Liquid Phase Bonding of Bi-Ni for High-Temperature Pb-Free Solder Alternatives. , 2021, , .		0
7	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
8	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
9	Hydrothermally-grown nanostructured anatase TiO2 coatings tailored for photocatalytic and antibacterial properties. Ceramics International, 2019, 45, 23216-23224.	4.8	13
10	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
11	Improved adhesion of polyurethane-based coatings to tin surface. Journal of Materials Science: Materials in Electronics, 2019, 30, 7268-7279.	2.2	11
12	Metallurgical Aspects of Wire Bonds. , 2019, , 179-204.		0
13	Ultrahigh photosensitivity of the polar surfaces of single crystalline ZnO nanoplates. Nanoscale, 2018, 10, 6801-6805.	5.6	7
14	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
15	Lead-Free Alternatives for Interconnects in High-Temperature Electronics. Journal of Electronic Packaging, Transactions of the ASME, 2018, 140, .	1.8	7
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	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
18	Nanoscale Insight into Performance Loss Mechanisms in P3HT:ZnO Nanorod Solar Cells. ACS Applied Energy Materials, 2018, 1, 6172-6180.	5.1	5

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19	Growth kinetics of bismuth nickel intermetallics. Journal of Materials Science: Materials in Electronics, 2018, 29, 19034-19042.	2.2	10
20	Effective charge collection area during conductive and photoconductive atomic force microscopy. Applied Physics Letters, 2018, 112, .	3.3	9
21	Effects of the Interlayer Thickness and Alloying on the Reliability of Transient Liquid Phase (TLP) Bonding. , 2018, , .		1
22	Electron beam irradiation effect on the mechanical properties of nanosilica-filled polyurethane films. Polymer Degradation and Stability, 2017, 141, 45-53.	5.8	13
23	Bismuth-Based Transient Liquid Phase (TLP) Bonding as High-Temperature Lead-Free Solder Alternatives. , 2017, , .		9
24	Hierarchical Organization of TiO₂ Nanostructures in Lowâ€Temperature Solution Processes. Journal of the American Ceramic Society, 2016, 99, 431-439.	3.8	4
25	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
26	Exploring Bismuth as a New Pb-Free Alternative for High Temperature Electronics. , 2016, , .		5
27	Enhanced mechanical properties of polyurethane composite coatings through nanosilica addition. Progress in Organic Coatings, 2016, 90, 243-251.	3.9	43
28	Enhancing the oxidation resistance of copper by using sandblasted copper surfaces. Applied Surface Science, 2015, 357, 2160-2168.	6.1	18
29	Developments of Bi-Sb-Cu alloys as a high-temperature Pb-free solder. , 2015, , .		4
30	Developments of high-Bi alloys as a high temperature Pb-free solder. , 2014, , .		8
31	Low temperature processed SnO2 films using aqueous precursor solutions. Ceramics International, 2013, 39, 143-151.	4.8	22
32	Vertically Aligned ZnO Nanorods Grown by Low-Temperature Solution Processing. Japanese Journal of Applied Physics, 2013, 52, 05DA09.	1.5	3
33	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
34	Dielectric Properties of Solutionâ€Deposited Crystalline Barium Titanate Thin Films. Journal of the American Ceramic Society, 2012, 95, 1189-1192.	3.8	8
35	Strong P-band emission and third harmonic generation from ZnO nanorods. Solid State Communications, 2012, 152, 1241-1243.	1.9	12
36	Microstructure developments of F-doped SiO2 thin films prepared by liquid phase deposition. Thin Solid Films, 2012, 520, 1718-1723.	1.8	11

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37	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
38	Electrodeposition of Titania Thin Films on Metallic Surface for Highâ€‹i>k</i> Dielectric Applications. Journal of the American Ceramic Society, 2010, 93, 774-781.	3.8	8
39	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
40	Developments of Low-Temperature Solution Processing for Nanostructured Titania Dielectric Films. Science of Advanced Materials, 2010, 2, 90-101.	0.7	3
41	Oxidation and reduction behavior of pure indium. Journal of Materials Research, 2009, 24, 386-393.	2.6	32
42	Microstructure Evolution and the Constitutive Relations of High-Temperature Solders. Journal of Electronic Materials, 2009, 38, 802-809.	2.2	35
43	Properties of Liquidâ€Phase Deposited Silica Films for Lowâ€‹i>k</i> Dielectric Applications. Journal of the American Ceramic Society, 2009, 92, 2388-2391.	3.8	4
44	Mineralization of flagella for nanotube formation. Materials Science and Engineering C, 2009, 29, 2282-2286.	7.3	21
45	Effect of Oxidation on Indium Solderability. Journal of Electronic Materials, 2008, 37, 483-489.	2.2	41
46	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
47	Buckling and Ferromagnetism of Aligned Cr-Doped ZnO Nanorods. Journal of Physical Chemistry C, 2008, 112, 19236-19241.	3.1	31
48	Inorganic-Organic Barrier Coatings for Flexible OLED Applications. , 2008, , .		2
49	Effects of Microstructure Evolution on High-Temperature Mechanical Deformation of 95Sn-5Sb. , 2008, , .		4
50	Protection From Oxygen and Moisture Via Thin Oxide Barrier Coating for Organic Electronics. , 2007, , 209.		0
51	Constitutive Relations of High Temperature Solders. , 2007, , 201.		2
52	Aligned Carbon Nanotube Polymer Composites. , 2007, , .		0
53	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
54	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

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55	Parylene-PDMS Bilayer Coatings for Microelectronic and MEMS Packaging. Materials Research Society Symposia Proceedings, 2006, 968, 1.	0.1	1
56	Thermodynamics and Kinetics of Oxidation of Pure Indium Solders. Materials Research Society Symposia Proceedings, 2006, 968, 1.	0.1	1
57	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
58	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
59	Microstructure and mechanical properties of ceramic/self-assembled monolayer bilayer coatings. Journal of Electronic Materials, 2005, 34, 528-533.	2.2	10
60	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
61	Nanostructured Ceramic Film Formation on Self-Assembled Monolayers via a Biomimetic Approach. Materials Research Society Symposia Proceedings, 2005, 901, 1.	0.1	0
62	Development of Conformal PDMS and Parylene Coatings for Microelectronics and MEMS Packaging. , 2005, , 279.		9
63	A Nanoindentation Study of Thermally-Grown-Oxide Films on Silicon. Materials Research Society Symposia Proceedings, 2004, 841, R12.10.1.	0.1	2
64	Mechanical Behavior of Ceramic/SAM Bilayer Coatings. Materials Research Society Symposia Proceedings, 2004, 844, 1.	0.1	0
65	Development of Protective Coatings for Silicon Devices. , 2003, , 373.		0
66	Tailoring of Stress Development in MEMS Packaging Systems. Materials Research Society Symposia Proceedings, 2002, 741, 5221.	0.1	3
67	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
68	Modeling of Grainâ€Boundary Segregation Behavior in Aluminum Oxide. Journal of the American Ceramic Society, 2000, 83, 344-352.	3.8	22
69	Role of segregating dopants on the improved creep resistance of aluminum oxide. Acta Materialia, 1999, 47, 4197-4207.	7.9	141
70	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
71	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
72	Influence of Yttrium Doping on Grain Misorientation in Aluminum Oxide. Journal of the American Ceramic Society, 1998, 81, 3001-3004.	3.8	43

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73	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
74	Polyimide Flex Circuitry for >200C. , 0, , .		0