Hyuck Mo Lee

List of Publications by Citations

185 papers	6,364 citations	42 h-index	71 g-index
192 ext. papers	7,435 ext. citations	5.7 avg, IF	5.98 L-index

#	Paper	IF	Citations
185	CO oxidation mechanism on CeO(2)-supported Au nanoparticles. *Journal of the American Chemical Society*, **2012**, 134, 1560-70	16.4	423
184	Perovskite-polymer composite cross-linker approach for highly-stable and efficient perovskite solar cells. *Nature Communications*, **2019**, 10, 520	17.4	262
183	Tuning Molecular Interactions for Highly Reproducible and Efficient Formamidinium Perovskite Solar Cells via Adduct Approach. *Journal of the American Chemical Society*, **2018**, 140, 6317-6324	16.4	233
182	Prediction of interface reaction products between Cu and various solder alloys by thermodynamic calculation. *Acta Materialia*, **1997**, 45, 1867-1874	8.4	204
181	Wireless bioresorbable electronic system enables sustained nonpharmacological neuroregenerative therapy. *Nature Medicine*, **2018**, 24, 1830-1836	50.5	190
180	Brush-Like Cobalt Nitride Anchored Carbon Nanofiber Membrane: Current Collector-Catalyst Integrated Cathode for Long Cycle Li-O Batteries. *ACS Nano*, **2018**, 12, 128-139	16.7	175
179	Effect of soldering and aging time on interfacial microstructure and growth of intermetallic compounds between Sn-3.5Ag solder alloy and Cu substrate. *Journal of Electronic Materials*, **2000**, 29, 1207-1213	1.9	148
178	Bifunctional Mechanism of CO2 Methanation on Pd-MgO/SiO2 Catalyst: Independent Roles of MgO and Pd on CO2 Methanation. *Journal of Physical Chemistry C*, **2010**, 114, 7128-7131	3.8	136
177	Adsorption properties of hydrogen on (10,0) single-walled carbon nanotube through density functional theory. *Carbon*, **2004**, 42, 2169-2177	10.4	121
176	Highly active and stable stepped Cu surface for enhanced electrochemical CO2 reduction to C2H4. *Nature Catalysis*, **2020**, 3, 804-812	36.5	118
175	CO Oxidation by Rutile TiO2(110) Doped with V, W, Cr, Mo, and Mn. *Journal of Physical Chemistry C*, **2008**, 112, 12398-12408	3.8	108
174	Thermodynamics-aided alloy design and evaluation of Pb-free solder, SnBiInZn system. *Acta Materialia*, **1997**, 45, 951-960	8.4	101
173	Effects of Minor Additions of Zn on Interfacial Reactions of Sn-Ag-Cu and Sn-Cu Solders with Various Cu Substrates during Thermal Aging. *Journal of Electronic Materials*, **2007**, 36, 1501-1509	1.9	100
172	AgCu Bimetallic Nanoparticles with Enhanced Resistance to Oxidation: A Combined Experimental and Theoretical Study. *Journal of Physical Chemistry C*, **2014**, 118, 26324-26331	3.8	94
171	Structural stability of AgCu bimetallic nanoparticles and their application as a catalyst: A DFT study. *Catalysis Today*, **2012**, 185, 94-98	5.3	92
170	Steering epitaxial alignment of Au, Pd, and AuPd nanowire arrays by atom flux change. *Nano Letters* , **2010**, 10, 432-8	11.5	84
169	Optimization and application of lithium parameters for the reactive force field, ReaxFF. *Journal of Physical Chemistry A*, **2005**, 109, 4575-82	2.8	79

168	Thermodynamic prediction of interface phases at Cu/solder joints. *Journal of Electronic Materials*, **1998**, 27, 1161-1166	1.9	78
167	Mussel Inspired Highly Aligned TiCT MXene Film with Synergistic Enhancement of Mechanical Strength and Ambient Stability. *ACS Nano*, **2020**, 14, 11722-11732	16.7	78
166	Synthesis and characterization of low temperature Sn nanoparticles for the fabrication of highly conductive ink. *Nanotechnology*, **2011**, 22, 225701	3.4	76
165	Cu-Ag core-shell nanoparticles with enhanced oxidation stability for printed electronics. *Nanotechnology*, **2015**, 26, 455601	3.4	75
164	Yellow-emitting Ca2SiO4:Ce3+, Li+ phosphor for solid-state lighting: luminescent properties, electronic structure, and white light-emitting diode application. *Optics Express*, **2012**, 20, 2761-71	3.3	70
163	The evolution of microstructure and microhardness of SnAg and SnCu solders during high temperature aging. *Microelectronics Reliability*, **2009**, 49, 288-295	1.2	68
162	Effect of Ni layer thickness and soldering time on intermetallic compound formation at the interface between molten Sn-3.5Ag and Ni/Cu substrate. *Journal of Electronic Materials*, **1999**, 28, 1251-1255	1.9	67
161	High-Performance Solution-Processed Double-Walled Carbon Nanotube Transparent Electrode for Perovskite Solar Cells. *Advanced Energy Materials*, **2019**, 9, 1901204	21.8	64
160	Tin sulfide modified separator as an efficient polysulfide trapper for stable cycling performance in Li-S batteries. *Nanoscale Horizons*, **2019**, 4, 214-222	10.8	59
159	Effects of Mn on the crystal structure of Al(Mn,Fe)Si particles in A356 alloys. *Journal of Crystal Growth*, **2006**, 291, 207-211	1.6	56
158	Highly activated K-doped iron carbide nanocatalysts designed by computational simulation for Fischer Tropsch synthesis. *Journal of Materials Chemistry A*, **2014**, 2, 14371-14379	13	55
157	An Investigation of Microstructure and Microhardness of Sn-Cu and Sn-Ag Solders as Functions of Alloy Composition and Cooling Rate. *Journal of Electronic Materials*, **2009**, 38, 257-265	1.9	55
156	The effect of Ti on the sintering and mechanical properties of refractory high-entropy alloy TixWTaVCr fabricated via spark plasma sintering for fusion plasma-facing materials. *Materials Chemistry and Physics*, **2018**, 210, 87-94	4.4	54
155	Synthesis of Chemically Ordered PtFe/C Intermetallic Electrocatalysts for Oxygen Reduction Reaction with Enhanced Activity and Durability via a Removable Carbon Coating. *ACS Applied Materials & Interfaces*, **2017**, 9, 31806-31815	9.5	54
154	Preferential segregation of Pd atoms in the Ag-Pd bimetallic cluster: Density functional theory and molecular dynamics simulation. *Physical Review B*, **2007**, 75,	3.3	53
153	The theoretical study on interaction of hydrogen with single-walled boron nitride nanotubes. I. The reactive force field ReaxFF(HBN) development. *Journal of Chemical Physics*, **2005**, 123, 114703	3.9	51
152	Interfacial Microstructure and Joint Strength of Sn3.5AgX (X = Cu, In, Ni) Solder Joint. *Journal of Materials Research*, **2002**, 17, 43-51	2.5	51
151	Graphene veils and sandwiches. *Nano Letters*, **2011**, 11, 3290-4	11.5	49

150	The Crystal Orientation of β-Sn Grains in Sn-Ag and Sn-Cu Solders Affected by Their Interfacial Reactions with Cu and Ni(P) Under Bump Metallurgy. *Journal of Electronic Materials*, **2009**, 38, 2461-2469	1.9	49
149	New algorithm in the basin hopping Monte Carlo to find the global minimum structure of unary and binary metallic nanoclusters. *Journal of Chemical Physics*, **2008**, 128, 144702	3.9	49
148	Electromigration in flip chip solder bump of 97Pb-3Sn/37Pb-63Sn combination structure. *Acta Materialia*, **2004**, 52, 129-136	8.4	49
147	The influence of Mn and Cr on the tensile properties of A356-0.20Fe alloy. *Materials Letters*, **2006**, 60, 1880-1883	3.3	47
146	Semiconducting carbon nanotubes as crystal growth templates and grain bridges in perovskite solar cells. *Journal of Materials Chemistry A*, **2019**, 7, 12987-12992	13	44
145	Atomically Embedded Ag via Electrodiffusion Boosts Oxygen Evolution of CoOOH Nanosheet Arrays. *ACS Catalysis*, **2020**, 10, 562-569	13.1	43
144	Catalytic characteristics of AgCu bimetallic nanoparticles in the oxygen reduction reaction. *ChemSusChem*, **2013**, 6, 1044-9	8.3	42
143	Theoretical study on interaction of hydrogen with single-walled boron nitride nanotubes. II. Collision, storage, and adsorption. *Journal of Chemical Physics*, **2005**, 123, 114704	3.9	41
142	Grain Morphology of Intermetallic Compounds at Solder Joints. *Journal of Materials Research*, **2002**, 17, 597-599	2.5	39
141	Phase diagram of Ag-Pd bimetallic nanoclusters by molecular dynamics simulations: solid-to-liquid transition and size-dependent behavior. *Physical Chemistry Chemical Physics*, **2009**, 11, 5079-85	3.6	38
140	Effect of cooling rate on growth of the intermetallic compound and fracture mode of near-eutectic Sn-Ag-Cu/Cu pad: Before and after aging. *Journal of Electronic Materials*, **2004**, 33, 1530-1544	1.9	38
139	M2C precipitates in isothermal tempering of high Co-Ni secondary hardening steel. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1996**, 27, 3466-3472	2.3	38
138	Mechanistic Investigation of the Catalytic Decomposition of Ammonia (NH3) on an Fe(100) Surface: A DFT Study. *Journal of Physical Chemistry C*, **2014**, 118, 5309-5316	3.8	37
137	Oxidative Dehydrogenation of Methanol to Formaldehyde by Isolated Vanadium, Molybdenum, and Chromium Oxide Clusters Supported on Rutile TiO2(110). *Journal of Physical Chemistry C*, **2009**, 113, 16083-16093	3.8	36
136	A Bioresorbable Magnetically Coupled System for Low-Frequency Wireless Power Transfer. *Advanced Functional Materials*, **2019**, 29, 1905451	15.6	35
135	Wirelessly controlled, bioresorbable drug delivery device with active valves that exploit electrochemically triggered crevice corrosion. *Science Advances*, **2020**, 6, eabb1093	14.3	35
134	Ligand-induced structural evolution of Pt55 nanoparticles: amine versus thiol. *ACS Nano*, **2011**, 5, 8515-22	16.7	34
133	Wettability and interfacial reactions of Sn-based Pb-free solders with Cu-Zn alloy under bump metallurgies. *Journal of Alloys and Compounds*, **2009**, 474, 510-516	5.7	34

132	A thermodynamic study of phase equilibria in the Au-Sb-Sn solder system. *Journal of Electronic Materials*, **2002**, 31, 557-563	1.9	34
131	New Sn□.7Cu-based solder alloys with minor alloying additions of Pd, Cr and Ca. *Journal of Alloys and Compounds*, **2014**, 608, 126-132	5.7	33
130	A Simple Process for Synthesis of Ag Nanoparticles and Sintering of Conductive Ink for Use in Printed Electronics. *Journal of Electronic Materials*, **2012**, 41, 115-121	1.9	33
129	Control of chemical kinetics for sub-10 nm Cu nanoparticles to fabricate highly conductive ink below 150 □C. *Nanotechnology*, **2012**, 23, 065601	3.4	33
128	A thermodynamic study of phase equilibria in the Sn-Bi-Pb solder system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **1998**, 22, 167-178	1.9	33
127	Fabrication of sintering-free flexible copper nanowire/polymer composite transparent electrodes with enhanced chemical and mechanical stability. *Nano Research*, **2016**, 9, 2162-2173	10	32
126	Enhancement of heterogeneous nucleation of □Sn phases in Sn-rich solders by adding minor alloying elements with hexagonal closed packed structures. *Applied Physics Letters*, **2009**, 95, 021905	3.4	32
125	Effects of Co Addition on Bulk Properties of Sn-3.5Ag Solder and Interfacial Reactions with Ni-P UBM. *Journal of Electronic Materials*, **2009**, 38, 39-45	1.9	32
124	Nanomechanical Behavior of β-SiC Nanowire in Tension: Molecular Dynamics Simulations. *Materials Transactions*, **2004**, 45, 1442-1449	1.3	32
123	Interfacial reaction between Sn-1Bi-5In-9Zn solder and Cu substrate. *Scripta Materialia*, **1999**, 40, 327-333	3.6	32
122	Artificial Intelligence to Accelerate the Discovery of N2 Electroreduction Catalysts. *Chemistry of Materials*, **2020**, 32, 709-720	9.6	32
121	Undercooling and microhardness of Pb-free solders on various under bump metallurgies. *Journal of Materials Research*, **2008**, 23, 1147-1154	2.5	31
120	Prediction of primary intermetallic compound formation during interfacial reaction between Sn-based solder and Ni substrate. *Scripta Materialia*, **2002**, 46, 777-781	5.6	31
119	Effects of phase composition and elemental partitioning on soft magnetic properties of AlFeCoCrMn high entropy alloys. *Acta Materialia*, **2019**, 171, 31-39	8.4	30
118	Design of Robust and Reactive Nanoparticles with Atomic Precision: 13Ag-Ih and 12Ag□X (X = Pd, Pt, Au, Ni, or Cu) Core□Shell Nanoparticles. *Journal of Physical Chemistry C*, **2009**, 113, 15559-15564	3.8	30
117	Polyaromatic Nanotweezers on Semiconducting Carbon Nanotubes for the Growth and Interfacing of Lead Halide Perovskite Crystal Grains in Solar Cells. *Chemistry of Materials*, **2020**, 32, 5125-5133	9.6	29
116	Synthesis of low-temperature-processable and highly conductive Ag ink by a simple ligand modification: the role of adsorption energy. *Journal of Materials Chemistry C*, **2013**, 1, 1855	7.1	29
115	Oxidative Dehydrogenation of Methanol to Formaldehyde by a Vanadium Oxide Cluster Supported on Rutile TiO2(110): Which Oxygen is Involved?. *Journal of Physical Chemistry C*, **2010**, 114, 13736-13738	3.8	29

114	Balance in Adsorption Energy of Reactants Steers CO Oxidation Mechanism of Ag13 and Ag12Pd1 Nanoparticles: Association Mechanism versus Carbonate-Mediated Mechanism. *Journal of Physical Chemistry C*, **2010**, 114, 3156-3160	3.8	29
113	Molecular Dynamic Simulation of Coalescence between Silver and Palladium Clusters. *Materials Transactions*, **2007**, 48, 455-459	1.3	29
112	Nanopores of carbon nanotubes as practical hydrogen storage media. *Applied Physics Letters*, **2005**, 87, 213113	3.4	29
111	A Study on the Growth Behavior and Stability of Molecular Layer Deposited Alucone Films Using Diethylene Glycol and Trimethyl Aluminum Precursors, and the Enhancement of Diffusion Barrier Properties by Atomic Layer Deposited Al2O3 Capping. *ACS Applied Materials & Interfaces*, **2016**, 8, 12263-71	9.5	28
110	Phase diagram and structural evolution of Ag-Au bimetallic nanoparticles: molecular dynamics simulations. *Physical Chemistry Chemical Physics*, **2012**, 14, 2791-6	3.6	27
109	Overstabilization of the Metastable Structure of Isolated AgPd Bimetallic Clusters. *Journal of Physical Chemistry C*, **2008**, 112, 17138-17142	3.8	27
108	Effects of shell thickness on Ag-Cu 2 O core-shell nanoparticles with bumpy structures for enhancing photocatalytic activity and stability. *Catalysis Today*, **2018**, 303, 313-319	5.3	27
107	Phase stability of Pt nanoclusters and the effect of a (0 0 0 1) graphite surface through molecular dynamics simulation. *Surface Science*, **2008**, 602, 1433-1439	1.8	26
106	Liquefaction of H2 molecules upon exterior surfaces of carbon nanotube bundles. *Applied Physics Letters*, **2005**, 86, 203108	3.4	26
105	Phase equilibrium of the TiCrV ternary system in the non-burning Ti alloy region. *Journal of Alloys and Compounds*, **1999**, 291, 229-238	5.7	26
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103	Thermodynamic Assessment of the Ni-Bi Binary System and Phase Equilibria of the Sn-Bi-Ni Ternary System. *Journal of Electronic Materials*, **2007**, 36, 1536-1544	1.9	25
102	Morphological characteristics of multi-layer/substrate systems. *Materials Characterization*, **2006**, 56, 274-280	3.9	25
101	Study of the effect of natural oxidation and thermal annealing on microstructures of AlOx in the magnetic tunnel junction by high-resolution transmission electron microscopy. *Applied Physics Letters*, **2002**, 80, 1168-1170	3.4	24
100	Three-dimensional sponge-like architectured cupric oxides as high-power and long-life anode material for lithium rechargeable batteries. *Electrochimica Acta*, **2012**, 70, 98-104	6.7	23
99	Adsorption, dissociation, penetration, and diffusion of N2 on and in bcc Fe: first-principles calculations. *Physical Chemistry Chemical Physics*, **2013**, 15, 5186-92	3.6	23
98	Phase Equilibria in the Sn-Ni-Zn Ternary System: Isothermal Sections at 200°C, 500°C, and 800°C. *Journal of Electronic Materials*, **2010**, 39, 2643-2652	1.9	23
97	Highly porous NiP electrode synthesized by an ultrafast electrodeposition process for efficient overall water electrolysis. *Journal of Materials Chemistry A*, **2020**, 8, 12069-12079	13	22

96	Electron transport properties in magnetic tunnel junctions with epitaxial NiFe (111) ferromagnetic bottom electrodes. *Applied Physics Letters*, **2003**, 82, 4735-4737	3.4	22
95	Investigation of the phase equilibria in the Sn-Bi-In alloy system. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1999**, 30, 1503-1515	2.3	22
94	Interface engineering for a rational design of poison-free bimetallic CO oxidation catalysts. *Nanoscale*, **2017**, 9, 5244-5253	7.7	21
93	Synthesis and characterization of highly conductive Sn□Ag bimetallic nanoparticles for printed electronics. *Journal of Nanoparticle Research*, **2012**, 14, 1	2.3	21
92	CO Oxidation on Positively and Negatively Charged Ag13 Nanoparticles. *Journal of Physical Chemistry C*, **2011**, 115, 24771-24777	3.8	21
91	Glass formation in metallic Al□Ni□. *Journal of Non-Crystalline Solids*, **1998**, 242, 122-130	3.9	21
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89	Interfacial Reactions and Microstructures of Sn-0.7Cu-xZn Solders with Ni-P UBM During Thermal Aging. *Journal of Electronic Materials*, **2009**, 38, 2242-2250	1.9	19
88	Coarsening behavior of L12 precipitates in melt-spun Al?Ti?V?Zr alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1993**, 163, 81-90	5.3	19
87	Molecular Dynamics Simulation of the Diffusion of Au and Pt Nanoclusters on Carbon Nanotubes. *Journal of Physical Chemistry C*, **2009**, 113, 10416-10421	3.8	18
86	Electromigration performance of Pb-free solder joints in terms of solder composition and joining path. *Jom*, **2010**, 62, 22-29	2.1	18
85	Microstructural Evolution of Joint Interface between Eutectic 80Au–20Sn Solder and UBM. *Materials Transactions*, **2005**, 46, 2400-2405	1.3	18
84	Hetero-Dimensional 2D TiCT MXene and 1D Graphene Nanoribbon Hybrids for Machine Learning-Assisted Pressure Sensors. *ACS Nano*, **2021**, 15, 10347-10356	16.7	18
83	Multidimensional TiCT MXene Architectures Interfacial Electrochemical Self-Assembly. *ACS Nano*, **2021**, 15, 10058-10066	16.7	18
82	A combinatorial approach for the synthesis and analysis of AlxCryMozNbTiZr high-entropy alloys: Oxidation behavior. *Journal of Materials Research*, **2018**, 33, 3226-3234	2.5	17
81	Interfacial reaction between 42Sn-58Bi solder and electroless Ni-P/immersion Au under bump metallurgy during aging. *Journal of Electronic Materials*, **2006**, 35, 35-40	1.9	17
80	Intimate atomic Cu-Ag interfaces for high CO2RR selectivity towards CH4 at low over potential. *Nano Research*, **2021**, 14, 3497-3501	10	17
79	Phenomenological phase diagram calculation of the Ni?Al system in the Ni-rich region. *Acta Materialia*, **1997**, 45, 4743-4749	8.4	16

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77	Ethylenediamine-Enhanced Oxidation Resistivity of a Copper Surface during Water-Based Copper Nanowire Synthesis. *Journal of Physical Chemistry C*, **2016**, 120, 3334-3340	3.8	15
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75	Nucleation mechanism of carbon nanotube. *Chemical Physics Letters*, **2004**, 383, 321-325	2.5	15
74	Morphological transition of interfacial Ni3Sn4 grains at the Sn-3.5Ag/Ni joint. *Journal of Electronic Materials*, **2003**, 32, 1228-1234	1.9	15
73	Effect of Mo and Nb on the phase equilibrium of the Ti□rN ternary system in the non-burning □Ti alloy region. *Journal of Alloys and Compounds*, **2000**, 297, 231-239	5.7	15
72	Denatured M13 Bacteriophage-Templated Perovskite Solar Cells Exhibiting High Efficiency. *Advanced Science*, **2020**, 7, 2000782	13.6	15
71	Surface modification of oleylamine-capped Ag-Cu nanoparticles to fabricate low-temperature-sinterable Ag-Cu nanoink. *Nanotechnology*, **2016**, 27, 345706	3.4	15
70	Composition of M2C phase in tempering of high Co?Ni steels. *Scripta Metallurgica Et Materialia*, **1991**, 25, 685-688		14
69	Immobilization of Au Nanoclusters Supported on Graphite: Molecular Dynamics Simulations. *Journal of Physical Chemistry C*, **2010**, 114, 2022-2026	3.8	13
68	Comparison of Sn2.8Ag20In and Sn10Bi10In solders for intermediate-step soldering. *Journal of Electronic Materials*, **2006**, 35, 1975-1981	1.9	13
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66	CO oxidation by MoS2-supported Au19 nanoparticles: effects of vacancy formation and tensile strain. *Physical Chemistry Chemical Physics*, **2016**, 18, 13232-8	3.6	13
65	Synthesis of oxide-free aluminum nanoparticles for application to conductive film. *Nanotechnology*, **2018**, 29, 055602	3.4	12
64	Effects of under bump metallization and nickel alloying element on the undercooling behavior of Sn-based, Pb-free solders. *Journal of Materials Research*, **2009**, 24, 534-543	2.5	11
63	Molecular dynamics simulations of the diffusion and rotation of Pt nanoclusters supported on graphite. *Physical Chemistry Chemical Physics*, **2009**, 11, 503-7	3.6	11
62	Estimation of order□disorder transition temperature in Pt□o alloy by Monte Carlo simulation using modified embedded atom method. *Scripta Materialia*, **2001**, 45, 495-502	5.6	11
61	Reducing Time to Discovery: Materials and Molecular Modeling, Imaging, Informatics, and Integration. *ACS Nano*, **2021**, 15, 3971-3995	16.7	11

60	Undercooling, Microstructures and Hardness of Sn-Rich Pb-Free Solders on Cu-xZn Alloy Under Bump Metallurgies. *Materials Transactions*, **2009**, 50, 2291-2296	1.3	10
59	Prediction of the glass transition temperature and design of phase diagrams of butadiene rubber and styrene-butadiene rubber via molecular dynamics simulations. *Physical Chemistry Chemical Physics*, **2017**, 19, 16498-16506	3.6	9
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56	Thermodynamic evaluation and phase diagram of PbO?TiO2 system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **1994**, 18, 237-244	1.9	9
55	Ag2S-CoS hetero-nanowires terminated with stepped surfaces for improved oxygen evolution reaction. *Catalysis Communications*, **2019**, 129, 105749	3.2	8
54	Effect of Ag Addition on the Ripening Growth of ${rm Cu}_{6}{rm Sn}_{5}$ Grains at the Interface of Sn-xAg-0.5Cu/Cu During a Reflow. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2011**, 1, 1939-1946	1.7	8
53	Investigation of Sn Whisker Growth in Electroplated Sn and Sn-Ag as a Function of Plating Variables and Storage Conditions. *Journal of Electronic Materials*, **2014**, 43, 259-269	1.9	7
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50	Development of low temperature bonding using in-based solders **2008**,		7
49	Microstructural observation on effect of oxidation method of AlOx in magnetic tunnel junction by high resolution transmission electron microscopy. *Journal of Applied Physics*, **2002**, 91, 7947	2.5	7
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45	Titanium-promoted Au□Ti bimetallic nanoparticle catalysts for CO oxidation: A theoretical approach. *Catalysis Today*, **2016**, 265, 14-18	5.3	6
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43	Abnormal Grain Growth of Ni3Sn4 at Sn-3.5Ag/Ni Interface. *Materials Transactions*, **2004**, 45, 710-713	1.3	6

42	Diffusional Solidification Behavior in 304 Stainless Steel. *Materials Transactions, JIM*, **1998**, 39, 633-639		6
41	Thermodynamic prediction of glass forming range in Al-Mg-REM ternary system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **1998**, 22, 221-230	1.9	5
40	Controlling the interfacial reactions in Pb-free interconnections by adding minor alloying elements to Sn-rich solders **2008**,		5
39	Recent Progress in First Principle Calculation and High-Throughput Screening of Electrocatalysts: A Review. *Journal of Korean Institute of Metals and Materials*, **2019**, 57, 1-9	1	5
38	Structural Effectiveness of AgCl-decorated Ag Nanowires Enhancing Oxygen Reduction. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 7519-7528	8.3	5
37	A theoretical study of an amorphous aluminium oxide layer used as a tunnel barrier in a magnetic tunnel junction. *Physica Status Solidi (B): Basic Research*, **2007**, 244, 4427-4430	1.3	4
36	Demonstration and Characterization of Sn-3.0Ag-0.5Cu/ Sn-57Bi-1Ag Combination Solder for 3-D Multistack Packaging. *Journal of Electronic Materials*, **2008**, 37, 110-117	1.9	4
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34	Molecular dynamics simulation of zigzag single-walled carbon nanotube closing mechanisms. *Metals and Materials International*, **2003**, 9, 99-105	2.4	4
33	Controlled Removal of Surfactants from Double-Walled Carbon Nanotubes for Stronger p-Doping Effect and Its Demonstration in Perovskite Solar Cells.. *Small Methods*, **2021**, 5, e2100080	12.8	4
32	Preparation of non-woven nanofiber webs for detoxification of nerve gases. *Polymer*, **2019**, 179, 121664	3.9	3
31	Effect of Strontium Addition on the Microstructures and Mechanical Properties of Mg-5Al-3Ca Alloys. *Materials Transactions*, **2011**, 52, 1181-1185	1.3	3
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