Bong Jae Lee

List of Publications by Year
in descending order

120 papers	3,506 citations	126907 33 h-index	155660 55 g-index
120 all docs	120 docs citations	120 times ranked	2639 citing authors

#	Article	IF	Citations
1	Comprehensive analysis of an optimized near-field tandem thermophotovoltaic converter. Solar Energy Materials and Solar Cells, 2022, 236, 111522.	6.2	12
2	Thick Germanium-on-Nothing Structures by Annealing Microscale Hole Arrays With Straight Sidewall Profiles. Journal of Microelectromechanical Systems, 2022, 31, 183-185.	2.5	5
3	Modeling and experiments of near-field thermophotovoltaic conversion: A review. Solar Energy Materials and Solar Cells, 2022, 238, 111556.	6.2	27
4	Flow characterization of microscale effusion and transpiration air cooling on single blade. Case Studies in Thermal Engineering, 2022, 31, 101863.	5.7	7
5	Experimental and numerical investigation of micro-scale effusion and transpiration air cooling on cascaded turbine blades. Case Studies in Thermal Engineering, 2022, 32, 101892.	5.7	10
6	Optimization of a grating structure in hexagonal array with omnidirectional emission for daytime radiative cooling. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 284, 108165.	2.3	8
7	Thermophotovoltaic Energy Conversion in Far-to-Near-Field Transition Regime. ACS Photonics, 2022, 9, 1748-1756.	6.6	12
8	Enhancement of effective thermal conductivity of rGO/Mg nanocomposite packed beds. International Journal of Heat and Mass Transfer, 2022, 192, 122891.	4.8	8
9	PCA-based sub-surface structure and defect analysis for germanium-on-nothing using nanoscale surface topography. Scientific Reports, 2022, 12, 7205.	3.3	1
10	Towards highly specific measurement of binary mixtures by tandem operation of nanomechanical sensing system and micro-Raman spectroscopy. Sensors and Actuators B: Chemical, 2022, 367, 132133.	7.8	2
11	Development of a device for characterizing radiative cooling performance. Applied Thermal Engineering, 2022, 213, 118744.	6.0	7
12	Surrogate model for optimizing annealing duration of self-assembled membrane-cavity structures. Micro and Nano Systems Letters, 2022, 10, .	3.7	1
13	All-day radiative cooling using a grating-patterned PDMS film emitter. Applied Thermal Engineering, 2022, 214, 118771.	6.0	13
14	Experimental investigation of effusion and transpiration air cooling for single turbine blade. Applied Thermal Engineering, 2021, 182, 116156.	6.0	32
15	Measurement of effective thermal conductivity of LaNi<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si8.svg"><mml:msub><mml:mrow /><mml:mn>5</mml:mn></mml:msub></mml:math> powder packed bed. International Journal of Heat and Mass Transfer, 2021, 165, 120735.	4.8	11
16	A hybrid direct-absorption parabolic-trough solar collector combining both volumetric and surface absorption. Applied Thermal Engineering, 2021, 185, 116333.	6.0	18
17	Optimization and performance analysis of a multilayer structure for daytime radiative cooling. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 260, 107475.	2.3	16
18	Synthesis of therminolâ€graphite nanofluids and photoâ€thermal conversion properties. International Journal of Energy Research, 2021, 45, 11320-11328.	4.5	8

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19	Performance analysis of a hybrid HVAC system consisting of a solar thermal collector and a radiative cooling panel. Energy and Buildings, 2021, 241, 110921.	6.7	12
20	Analysis of temperature-dependent I-V characteristics of the Au/n-GaSb Schottky diode. Materials Science in Semiconductor Processing, 2021, 131, 105882.	4.0	12
21	Recent advances in using nanofluids in renewable energy systems and the environmental implications of their uptake. Nano Energy, 2021, 86, 106069.	16.0	149
22	Optical simulation for radiative absorption of plasmonic nanoparticles using metalâ€“insulatorâ€“magnetic structure for solar energy applications. Applied Physics Letters, 2021, 119, .	3.3	5
23	Corrigendum to â€œHeat transfer analysis of a high-power and large-capacity thermal battery and investigation of eï¬€ective thermal modelâ€•[J. Power Sources 424 (2019) 35â€“41]. Journal of Power Sources, 2021, 507, 230293.	7.8	0
24	Formation, evolution, and prevention of thermally induced defects on germanium and silicon upon high-temperature vacuum annealing. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	5
25	Solid-State Nanopore for Molecular Detection. International Journal of Precision Engineering and Manufacturing, 2021, 22, 2001-2026.	2.2	2
26	Absorption characteristics of nanoparticles with sharp edges for a direct-absorption solar collector. Renewable Energy, 2020, 145, 21-28.	8.9	63
27	Development of a high-energy-density portable/mobile hydrogen energy storage system incorporating an electrolyzer, a metal hydride and a fuel cell. Applied Energy, 2020, 259, 114175.	10.1	62
28	Programmable Fabrication of Submicrometer Bent Pillar Structures Enabled by a Photoreconfigurable Azopolymer. ACS Applied Materials & Interfaces, 2020, 12, 5058-5064.	8.0	22
29	Precise infrared thermometry with considering background radiation for gas turbine air cooling application. International Journal of Thermal Sciences, 2020, 158, 106534.	4.9	14
30	Surface-Plasmon-Enhanced Near-Field Radiative Heat Transfer between Planar Surfaces with a Thin-Film Plasmonic Coupler. Physical Review Applied, 2020, 14, .	3.8	18
31	A Janus emitter for passive heat release from enclosures. Science Advances, 2020, 6, .	10.3	116
32	Ultrahigh emissivity of grating-patterned PDMS film from 8 to 13â€‰ Î¼ m wavelength regime. Applied Physics Letters, 2020, 117, .	3.3	52
33	Tailoring the Spectral Absorption Coefficient of a Blended Plasmonic Nanofluid Using a Customized Genetic Algorithm. Scientific Reports, 2020, 10, 8891.	3.3	14
34	Partially Spatial Coherent Thermal Emitter Based on an Epsilon-and-mu-near-zero Metamaterial. Journal of the Korean Physical Society, 2020, 76, 889-894.	0.7	0
35	Process of measurement error treatment using model selection and local intensive smoothing and application to refractive index estimation of water. Applied Physics B: Lasers and Optics, 2020, 126, 1.	2.2	0
36	Synthesis of Therminol-based plasmonic nanofluids with core/shell nanoparticles and characterization of their absorption/scattering coefficients. Solar Energy Materials and Solar Cells, 2020, 209, 110442.	6.2	32

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37	Comparative analysis of directâ€absorption parabolicâ€trough solar collectors considering concentric nanofluid segmentation. International Journal of Energy Research, 2020, 44, 4015-4025.	4.5	15
38	Spectrally Selective Inorganic-Based Multilayer Emitter for Daytime Radiative Cooling. ACS Applied Materials & Interfaces, 2020, 12, 8073-8081.	8.0	195
39	Thermal design of a hydrogen storage system using La(Ce)Ni5. International Journal of Hydrogen Energy, 2020, 45, 8742-8749.	7.1	5
40	Microfluidic resonators with two parallel channels for independent sample loading and effective density tuning. Micro and Nano Systems Letters, 2020, 8, .	3.7	3
41	Absorption characteristics of a metal-insulator-metal nanodisk for solar thermal applications. Optics Express, 2020, 28, 15731.	3.4	34
42	EXPERIMENTAL EXPLORATION OF NEAR-FIELD RADIATIVE HEAT TRANSFER. Annual Review of Heat Transfer, 2020, 23, 13-58.	1.0	12
43	Near-Field Electroluminescent Refrigeration System Consisting of Two Graphene Schottky Diodes. Journal of Heat Transfer, 2020, 142, .	2.1	3
44	Correction to: Microfluidic resonators with two parallel channels for independent sample loading and effective density tuning. Micro and Nano Systems Letters, 2020, 8, .	3.7	0
45	Design of a Broadband Solar Thermal Absorber Using a Deep Neural Network and Experimental Demonstration of Its Performance. Scientific Reports, 2019, 9, 15028.	3.3	17
46	Thermal-Conductivity Enhancement by Surface Electromagnetic Waves Propagating along Multilayered Structures with Asymmetric Surrounding Media. Physical Review Applied, 2019, 12, .	3.8	6
47	Multiscale Fluidic Channels via Internal Oxidation and Oxide Etching of Self-Assembled Silicon-on-Nothing Structures. Journal of Microelectromechanical Systems, 2019, 28, 865-868.	2.5	5
48	Beyond mass measurement for single microparticles via bimodal operation of microchannel resonators. Micro and Nano Systems Letters, 2019, 7, .	3.7	2
49	Aspiration and MASS Measurement of Microparticles and Unicellular Organisms via Micropipette Resonators. , 2019, , .		2
50	Soft and Deformable Sensors Based on Liquid Metals. Sensors, 2019, 19, 4250.	3.8	57
51	Special issue on the Third International Workshop on Nano-micro Thermal Radiation (NanoRadâ€™17). Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 237, 106592.	2.3	1
52	Modified screening-based Kriging method with cross validation and application to engineering design. Applied Mathematical Modelling, 2019, 70, 626-642.	4.2	32
53	Optical Measurements of Three-Dimensional Microscopic Temperature Distributions Around Gold Nanorods Excited by Localized Surface Plasmon Resonance. Physical Review Applied, 2019, 11, .	3.8	12
54	Performance analysis of a direct-absorption parabolic-trough solar collector using plasmonic nanofluids. Renewable Energy, 2019, 143, 24-33.	8.9	60

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55	Analysis of Photocurrent Generation within a Schottky-Junction-Based Near-Field Thermophotovoltaic System. Physical Review Applied, 2019, 11, .	3.8	21
56	Heat transfer analysis of a high-power and large-capacity thermal battery and investigation of effective thermal model. Journal of Power Sources, 2019, 424, 35-41.	7.8	34
57	Micropipette Resonator Enabling Targeted Aspiration and Mass Measurement of Single Particles and Cells. ACS Sensors, 2019, 4, 3275-3282.	7.8	13
58	PERFORMANCE ANALYSIS MODEL FOR A NEAR-FIELD THERMOPHOTOVOLTAIC SYSTEM WITH A BACKSIDE REFLECTOR. , 2019, , .		1
59	Optimization of a near-field thermophotovoltaic system operating at low temperature and large vacuum gap. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 210, 35-43.	2.3	38
60	Determination of absorption coefficient of nanofluids with unknown refractive index from reflection and transmission spectra. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 213, 107-112.	2.3	9
61	Synthesis of Low Viscous Dielectric Nanofluids and Characterization of Convection Heat Transfer. Journal of Thermophysics and Heat Transfer, 2018, 32, 965-974.	1.6	4
62	Effect of light scattering on the performance of a direct absorption solar collector. Frontiers in Energy, 2018, 12, 169-177.	2.3	20
63	Robust optimization of a tandem grating solar thermal absorber. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 209, 129-136.	2.3	11
64	Thermal Analysis of Ball Grid Array Non-Volatile Memory Express Solid-State Drive in Vacuum. IEEE Electron Device Letters, 2018, 39, 1908-1911.	3.9	3
65	Effective Radiative Properties of Tilted Metallic Nanorod Arrays Considering Polarization Coupling. Scientific Reports, 2018, 8, 13896.	3.3	1
66	Tailoring near-field thermal radiation between metallo-dielectric multilayers using coupled surface plasmon polaritons. Nature Communications, 2018, 9, 4302.	12.8	95
67	AFM-thermoreflectance for simultaneous measurements of the topography and temperature. RSC Advances, 2018, 8, 27616-27622.	3.6	2
68	Optimization of the spectral absorption coefficient of a plasmonic nanofluid for a direct absorption solar collector. Solar Energy, 2018, 169, 231-236.	6.1	29
69	Sub-Beam Size Temperature Measurement of Heavily Doped Silicon Heater Using Two-Wavelength Thermoreflectance Microscopy. Journal of Heat Transfer, 2017, 139, .	2.1	1
70	Development of performance analysis model for central receiver system and its application to pattern-free heliostat layout optimization. Solar Energy, 2017, 153, 499-507.	6.1	16
71	Optimization of a direct absorption solar collector with blended plasmonic nanofluids. Solar Energy, 2017, 150, 512-520.	6.1	63
72	Effects of multilayered graphene on the performance of near-field thermophotovoltaic system at longer vacuum gap distances. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 197, 84-94.	2.3	25

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73	Phonon Transport through Nanoscale Contact in Tip-Based Thermal Analysis of Nanomaterials. Nanomaterials, 2017, 7, 200.	4.1	3
74	Broadband Solar Thermal Absorber Based on Optical Metamaterials for Highâ€Temperature Applications. Advanced Optical Materials, 2016, 4, 1265-1273.	7.3	69
75	Temperature measurement of Joule heated silicon micro/nanowires using selectively decorated quantum dots. Nanotechnology, 2016, 27, 505705.	2.6	2
76	Analysis on the performance of a flat-plate volumetric solar collector using blended plasmonic nanofluid. Solar Energy, 2016, 132, 247-256.	6.1	111
77	Femtosecond laser nanowelding of silver nanowires for transparent conductive electrodes. RSC Advances, 2016, 6, 86232-86239.	3.6	43
78	Effect of Constriction on Phonon Transport in Silicon Thin Films and Nanowires. Smart Science, 2016, 4, 173-179.	3.2	2
79	Hyperbolic metamaterial-based near-field thermophotovoltaic system for hundreds of nanometer vacuum gap. Optics Express, 2016, 24, A635.	3.4	65
80	Electromagnetic resonance modes on a two-dimensional tandem grating and its application for broadband absorption in the visible spectrum. Optics Express, 2016, 24, A202.	3.4	23
81	Near-field thermal radiation between doped silicon plates at nanoscale gaps. Physical Review B, 2015, 91, .	3.2	81
82	Control of thermal radiative properties using two-dimensional complex gratings. International Journal of Heat and Mass Transfer, 2015, 84, 713-721.	4.8	13
83	Graphene-assisted Si-InSb thermophotovoltaic system for low temperature applications. Optics Express, 2015, 23, A240.	3.4	70
84	Wavelength-Selective Solar Thermal Absorber With Two-Dimensional Nickel Gratings. Journal of Heat Transfer, 2014, 136, .	2.1	33
85	Optical property of blended plasmonic nanofluid based on gold nanorods. Optics Express, 2014, 22, A1101.	3.4	74
86	Note: Simultaneous determination of local temperature and thickness of heated cantilevers using two-wavelength thermoreflectance. Review of Scientific Instruments, 2014, 85, 036109.	1.3	3
87	Single Nanowire Resistive Nanoâ€heater for Highly Localized Thermoâ€Chemical Reactions: Localized Hierarchical Heterojunction Nanowire Growth. Small, 2014, 10, 5015-5022.	10.0	12
88	Nanoscale Heaters: Single Nanowire Resistive Nanoâ€heater for Highly Localized Thermoâ€Chemical Reactions: Localized Hierarchical Heterojunction Nanowire Growth (Small 24/2014). Small, 2014, 10, 5014-5014.	10.0	34
89	Analysis of phonon transport in silicon nanowires including optical phonons. Journal of the Korean Physical Society, 2013, 63, 1007-1013.	0.7	1
90	Tunable surface plasmons of dielectric core-metal shell particles for dye sensitized solar cells. RSC Advances, 2013, 3, 9690.	3.6	10

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91	Design a Wavelength-Selective Absorber for Solar Thermal Collectors With Two-Dimensional Nickel Gratings. , 2013, , .		0
92	Near-field thermal radiation between graphene-covered doped silicon plates. Optics Express, 2013, 21, 22173.	3.4	81
93	Temperature measurements of heated microcantilevers using scanning thermoreflectance microscopy. Review of Scientific Instruments, 2013, 84, 034903.	1.3	6
94	Assessment of phonon boundary scattering from light scattering standpoint. Journal of Applied Physics, 2012, 112, 063513.	2.5	5
95	Deflection Sensitivity Calibration of Heated Microcantilevers Using Pseudo-Gratings. IEEE Sensors Journal, 2012, 12, 2666-2667.	4.7	0
96	Radiative Heat Transfer Analysis in Plasmonic Nanofluids for Direct Solar Thermal Absorption. Journal of Solar Energy Engineering, Transactions of the ASME, 2012, 134, .	1.8	146
97	Surface and magnetic polaritons on two-dimensional nanoslab-aligned multilayer structure. Optics Express, 2011, 19, 16375.	3.4	22
98	Surfaceâ€Plasmon Assisted Energy Conversion in Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2011, 1, 415-421.	19.5	86
99	Magnetic resonance on core-shell nanowires with notches. Applied Physics Letters, 2011, 99, 101907.	3.3	3
100	Brownian motion induced dynamic near-field interaction between quantum dots and plasmonic nanoparticles in aqueous medium. Applied Physics Letters, 2010, 96, 174101.	3.3	8
101	Design analysis of doped-silicon surface plasmon resonance immunosensors in mid-infrared range. Optics Express, 2010, 18, 19396.	3.4	30
102	Quantum Size Effect on the Lattice Specific Heat of Nanostructures. Nanoscale and Microscale Thermophysical Engineering, 2010, 14, 1-20.	2.6	14
103	Multifunctional One-dimensional Phononic Crystal Structures Exploiting Interfacial Acoustic Waves. Materials Research Society Symposia Proceedings, 2009, 1188, 145.	0.1	0
104	Spatial and temporal coherence of thermal radiation in asymmetric Fabryâ€“Perot resonance cavities. International Journal of Heat and Mass Transfer, 2009, 52, 3024-3031.	4.8	74
105	Visible and near-infrared radiative properties of vertically aligned multi-walled carbon nanotubes. Nanotechnology, 2009, 20, 215704.	2.6	63
106	Chapter 3 Theory of Thermal Radiation and Radiative Properties. Experimental Methods in the Physical Sciences, 2009, 42, 73-132.	0.1	4
107	Indirect Measurements of Coherent Thermal Emission from a Truncated Photonic Crystal Structure. Journal of Thermophysics and Heat Transfer, 2009, 23, 9-17.	1.6	8
108	Confinement of infrared radiation to nanometer scales through metallic slit arrays. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 608-619.	2.3	41

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109	Surface waves between metallic films and truncated photonic crystals observed with reflectance spectroscopy. Optics Letters, 2008, 33, 204.	3.3	33
110	Coherent thermal emission by excitation of magnetic polaritons between periodic strips and a metallic film. Optics Express, 2008, 16, 11328.	3.4	229
111	Lateral Shifts in Near-Field Thermal Radiation with Surface Phonon Polaritons. Nanoscale and Microscale Thermophysical Engineering, 2008, 12, 238-250.	2.6	26
112	Light scattering of semitransparent sintered polytetrafluoroethylene films. Journal of Biomedical Optics, 2008, 13, 054064.	2.6	34
113	Transmission Enhancement Through Nanoscale Metallic Slit Arrays from the Visible to Mid-Infrared. Journal of Computational and Theoretical Nanoscience, 2008, 5, 201-213.	0.4	37
114	Energy pathways in nanoscale thermal radiation. Applied Physics Letters, 2007, 91, 153101.	3.3	24
115	Coherent Thermal Emission From Modified Periodic Multilayer Structures. Journal of Heat Transfer, 2007, 129, 17-26.	2.1	57
116	Lateral shift in photon tunneling studied by the energy streamline method. Optics Express, 2006, 14, 9963.	3.4	30
117	Modeling the radiative properties of semitransparent wafers with rough surfaces and thin-film coatings. Journal of Quantitative Spectroscopy and Radiative Transfer, 2005, 93, 185-194.	2.3	24
118	Partially Coherent Spectral Transmittance of Dielectric Thin Films with Rough Surfaces. Journal of Thermophysics and Heat Transfer, 2005, 19, 360-366.	1.6	25
119	Study of the surface and bulk polaritons with a negative index metamaterial. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 1016.	2.1	90
120	Modeling Radiative Properties of Silicon with Coatings and Comparison with Reflectance Measurements. Journal of Thermophysics and Heat Transfer, 2005, 19, 558-565.	1.6	34