Ho-Young Kwak

List of Publications by Year
in descending order

121	2,871	159585 30	197818 49
papers	citations	h-index	g-index

125	125	125	2604
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Forced convective heat transfer of nanofluids in microchannels. International Journal of Heat and Mass Transfer, 2009, 52, 466-472.	4.8	291
2	Exergoeconomic analysis of thermal systems. Energy, 1998, 23, 393-406.	8.8	109
3	Catalytic test of supported Ni catalysts with core/shell structure for dry reforming of methane. Fuel Processing Technology, 2011, 92, 1236-1243.	7.2	95
4	Optimal operation of a 1-kW PEMFC-based CHP system for residential applications. Applied Energy, 2012, 95, 93-101.	10.1	92
5	Exergoeconomic analysis of gas turbine cogeneration systems. Exergy an International Journal, 2001, 1, 31-40.	0.7	89
6	An Aspect of Sonoluminescence from Hydrodynamic Theory. Journal of the Physical Society of Japan, 1995, 64, 1980-1992.	1.6	79
7	Hydrodynamic Solutions for a Sonoluminescing Gas Bubble. Physical Review Letters, 1996, 77, 4454-4457.	7.8	75
8	Preparation of supported Ni catalysts on various metal oxides with core/shell structures and their tests for the steam reforming of methane. Chemical Engineering Journal, 2011, 168, 775-783.	12.7	75
9	Optimal planning and economic evaluation of cogeneration system. Energy, 2007, 32, 760-771.	8.8	68
10	EPR and photoluminescence properties of combustion-synthesized ZnAl2O4:Cr3+ phosphors. Journal of Materials Science, 2011, 46, 2331-2337.	3.7	66
11	Tensile strength of simple liquids predicted by a model of molecular interactions. Journal Physics D: Applied Physics, 1985, 18, 647-659.	2.8	64
12	Preparation of supported Ni catalysts with a core/shell structure and their catalytic tests of partial oxidation of methane. International Journal of Hydrogen Energy, 2009, 34, 3351-3359.	7.1	62
13	Exergetic and thermoeconomic analyses of a coal-fired power plant. International Journal of Thermal Sciences, 2017, 117, 106-120.	4.9	56
14	Effect of surface condition on boiling heat transfer from silicon chip with submicron-scale roughness. International Journal of Heat and Mass Transfer, 2006, 49, 4543-4551.	4.8	55
15	Exergy Analysis for a Gas Turbine Cogeneration System. Journal of Engineering for Gas Turbines and Power, 1996, 118, 782-791.	1.1	54
16	Homogeneous Bubble Nucleation Predicted by a Molecular Interaction Model. Journal of Heat Transfer, 1991, 113, 714-721.	2.1	51
17	Physical Processes for Single Bubble Sonoluminescence. Journal of the Physical Society of Japan, 1997, 66, 3074-3083.	1.6	50
18	Fluid flow and heat transfer in microchannels with rectangular cross section. Heat and Mass Transfer, 2008, 44, 1041-1049.	2.1	50

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19	Homogeneous nucleation and macroscopic growth of gas bubble in organic solutions. International Journal of Heat and Mass Transfer, 1998, 41, 757-767.	4.8	49
20	Temperature and pressure fields due to collapsing bubble under ultrasound. Chemical Engineering Journal, 2007, 132, 125-135.	12.7	47
21	Bubble nucleation and growth in polymer solutions. Polymer Engineering and Science, 2004, 44, 1890-1899.	3.1	44
22	Bubble dynamics on the evolving bubble formed from the droplet at the superheat limit. International Journal of Heat and Mass Transfer, 1995, 38, 1709-1718.	4.8	43
23	Luminescence and defect centres in Tb3+ doped LaMgAl11O19 phosphors. Solid State Sciences, 2010, 12, 1981-1987.	3.2	41
24	Preparation of Li4Ti5O12 nanoparticles by a simple sonochemical method. Dalton Transactions, 2007, , 4182.	3.3	39
25	Exergetic and thermoeconomic analysis of a 200-kW phosphoric acid fuel cell plant. Fuel, 2004, 83, 2087-2094.	6.4	38
26	Cost structure of CGAM cogeneration system. International Journal of Energy Research, 2004, 28, 1145-1158.	4.5	37
27	Degradation of methylene blue under multibubble sonoluminescence condition. Journal of Photochemistry and Photobiology A: Chemistry, 2005, 175, 45-50.	3.9	37
28	Experimental Study on Closed-Loop Two-Phase Thermosyphon Devices for Cooling MCMs. Heat Transfer Engineering, 2001, 22, 29-39.	1.9	36
29	Luminescence and EPR studies of Eu2+ doped BaAl12O19 blue light emitting phosphors. Journal of Luminescence, 2010, 130, 703-708.	3.1	36
30	Radiation Mechanism for a Single Bubble Sonoluminescence. Journal of the Physical Society of Japan, 2000, 69, 112-119.	1.6	35
31	Gasâ€“vapor bubble nucleationâ€”a unified approach. Journal of Colloid and Interface Science, 2004, 278, 436-446.	9.4	35
32	Thermoeconomic analysis of an ocean thermal energy conversion plant. Renewable Energy, 2016, 86, 1086-1094.	8.9	35
33	A Model of Laser-Induced Cavitation. Japanese Journal of Applied Physics, 2004, 43, 621-630.	1.5	33
34	Explosive boiling of liquid droplets at their superheat limits. Chemical Engineering Science, 2005, 60, 1809-1821.	3.8	31
35	Economic evaluation for adoption of cogeneration system. Applied Energy, 2007, 84, 266-278.	10.1	30
36	Fabrication and testing of bubble powered micropumps using embedded microheater. Microfluidics and Nanofluidics, 2007, 3, 161-169.	2.2	30

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37	Forced Convective Heat Transfer of Nanofluids in Microchannels. , 2006, , 327.		29
38	Economic optimization of a cogeneration system for apartment houses in Korea. Energy and Buildings, 2008, 40, 961-967.	6.7	29
39	Luminescence and EPR studies of Y2O3:Gd3+ phosphors prepared via solution combustion method. Journal of Materials Science, 2011, 46, 1038-1043.	3.7	26
40	A cost-effective method for integration of new and renewable energy systems in public buildings in Korea. Energy and Buildings, 2014, 74, 120-131.	6.7	25
41	Bubble Nucleation on Micro Line Heaters. Journal of Heat Transfer, 2003, 125, 687-692.	2.1	21
42	A capillary-pumped loop (CPL) with microcone-shaped capillary structure for cooling electronic devices. Journal of Micromechanics and Microengineering, 2008, 18, 017002.	2.6	21
43	Characterization of Al2O3â€“HfO2â€“Al2O3 sandwiched MIM capacitor under DC and AC stresses. Solid-State Electronics, 2013, 79, 218-222.	1.4	21
44	Bubble nucleation on micro line heaters under steady or finite pulse of voltage input. International Journal of Heat and Mass Transfer, 2003, 46, 3897-3907.	4.8	19
45	Bubble Evolution and Radiation Mechanism for Laser-Induced Collapsing Bubble in Water. Japanese Journal of Applied Physics, 2004, 43, 6364-6370.	1.5	19
46	Adhesive force measurement of steady-state water nano-meniscus: Effective surface tension at nanoscale. Scientific Reports, 2018, 8, 8462.	3.3	19
47	Investigations on green-emitting, Mn2+: BaAl12O19 phosphors obtained by solution combustion process. Journal of Materials Science, 2011, 46, 3928-3934.	3.7	18
48	A support strategy for the promotion of photovoltaic uses for residential houses in Korea. Energy Policy, 2013, 53, 248-256.	8.8	18
49	Infrared emission and defect centres in Er and Yb codoped Y3Al5O12 phosphors. Applied Physics A: Materials Science and Processing, 2010, 100, 1123-1130.	2.3	17
50	Mixed and autothermal reforming of methane with supported Ni catalysts with a core/shell structure. Fuel Processing Technology, 2012, 93, 105-114.	7.2	17
51	Thermal management for a hydrogen-fueled 1-kW PEMFC based on thermoeconomic analysis. International Journal of Hydrogen Energy, 2019, 44, 24934-24946.	7.1	17
52	Synthesis, characterization and photoluminescence of Eu³⁺, Ce³⁺co-doped CaLaAl₃O₇phosphors. Philosophical Magazine, 2010, 90, 3095-3105.	1.6	16
53	Characteristics of Sonoluminescing Bubbles in Aqueous Solutions of Sulfuric Acid. Journal of the Physical Society of Japan, 2006, 75, 114705.	1.6	15
54	Syntheses of ZnO and ZnO-coated TiO2 nanoparticles in various alcohol solutions at multibubble sonoluminescence (MBSL) condition. Chemical Engineering Journal, 2008, 135, 168-173.	12.7	15

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55	Syntheses of Mn3O4 and LiMn2O4 nanoparticles by a simple sonochemical method. Materials Letters, 2009, 63, 2201-2204.	2.6	15
56	Thermoeconomic analysis of ground-source heat pump systems. International Journal of Energy Research, 2014, 38, 259-269.	4.5	15
57	Bubble Dynamics for Single Bubble Sonoluminescence. Journal of the Physical Society of Japan, 2001, 70, 2909-2917.	1.6	13
58	Coating of TiO2 nanoparticles with PbS thin films and preparation of PbS nanoparticles using a one-pot sonochemical reaction under the multibubble sonoluminescence conditions. Thin Solid Films, 2009, 517, 6663-6665.	1.8	13
59	Shock Pulse from a Sonoluminescing Gas Bubble. Journal of the Physical Society of Japan, 1997, 66, 2537-2540.	1.6	12
60	A Model of Homogeneous Bubble Nucleation of CO Bubbles in Feâ€“Câ€“O Melts. Journal of Colloid and Interface Science, 1998, 198, 113-118.	9.4	12
61	Predictions of bubble behavior in sulfuric acid solutions by a set of solutions of Navierâ€“Stokes equations. Chemical Engineering Science, 2007, 62, 2880-2889.	3.8	12
62	Radius Measurement of a Sonoluminescing Gas Bubble. Japanese Journal of Applied Physics, 2000, 39, 1124-1127.	1.5	11
63	Diagnosis of Combined Cycle Power Plant Based on Thermoeconomic Analysis: A Computer Simulation Study. Entropy, 2017, 19, 643.	2.2	11
64	Transient Characteristics of a Two-Phase Thermosyphon Loop for Multichip Module. ETRI Journal, 1998, 20, 284-300.	2.0	10
65	Diagnosis of a hydrogen-fueled 1-kW PEMFC system based on exergy analysis. International Journal of Hydrogen Energy, 2020, 45, 17745-17758.	7.1	10
66	Measurement of Pulse Width of Sonoluminescing Gas Bubble in Sulfuric Acid Solution. Journal of the Physical Society of Japan, 2008, 77, 033703.	1.6	9
67	Thermoeconomic Analysis of High-Temperature Gas-Cooled Reactors with Steam Methane Reforming for Hydrogen Production. Nuclear Technology, 2011, 176, 337-351.	1.2	9
68	Fire-ball expansion and subsequent shock wave propagation from explosives detonation. International Journal of Thermal Sciences, 2012, 59, 9-16.	4.9	9
69	Hydrodynamic approach to multibubble sonoluminescence. Ultrasonics Sonochemistry, 2014, 21, 1512-1518.	8.2	9
70	Thermodynamic, exergetic, and thermoeconomic analyses of a 1-kW proton exchange membrane fuel cell system fueled by natural gas. Energy, 2021, 217, 119362.	8.8	9
71	Validation of molecular dynamics simulation for a collapsing process of sonoluminescing gas bubbles. Molecular Physics, 2008, 106, 967-975.	1.7	8
72	Measurement of Pulse Width from a Bubble Cloud under Multibubble Sonoluminescence Conditions. Journal of the Physical Society of Japan, 2010, 79, 124401.	1.6	8

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73	A Novel BJT Structure Implemented Using CMOS Processes for High-Performance Analog Circuit Applications. IEEE Transactions on Semiconductor Manufacturing, 2012, 25, 549-554.	1.7	8
74	Effects of High-Pressure Annealing on Random Telegraph Signal Noise Characteristic of Source Follower Block in CMOS Image Sensor. IEEE Electron Device Letters, 2013, 34, 190-192.	3.9	8
75	Characterization, Luminescence, and Defect Centers of a Ce3+-Doped Li2Si2O5 Phosphor Prepared by a Solution Combustion Reaction. Journal of Electronic Materials, 2015, 44, 2736-2744.	2.2	8
76	Shock wave propagation in bubbly liquids at small gas volume fractions. Journal of Mechanical Science and Technology, 2017, 31, 1223-1231.	1.5	8
77	Forced convective boiling in vertical tube for binary refrigerant mixtures of R11 and R113. Journal of Mechanical Science and Technology, 1998, 12, 493-503.	0.4	7
78	Possibility of Upscaling for Single Bubble Sonoluminescence at a Low Driving Frequency. Journal of the Physical Society of Japan, 2003, 72, 509-515.	1.6	7
79	Laser-induced bubble formation on a micro gold particle levitated in water under ultrasonic field. Experimental Thermal and Fluid Science, 2018, 93, 285-291.	2.7	7
80	Vapor Bubble Nucleation: A Microscopic Phenomenon. Journal of Mechanical Science and Technology, 2004, 18, 1271-1287.	0.4	6
81	Pressure waves in bubbly liquids. Journal of Mechanical Science and Technology, 2016, 30, 3935-3943.	1.5	6
82	Pressure Wave Propagation inside a Sonoluminescing Gas Bubble. Journal of the Physical Society of Japan, 1999, 68, 705-708.	1.6	5
83	Hydrodynamics and Thermodynamics of Newtonian Stars. Geophysical and Astrophysical Fluid Dynamics, 2003, 97, 45-58.	1.2	5
84	Nonlinear behavior of micro bubbles under ultrasound due to heat transfer. Journal of Mechanical Science and Technology, 2009, 23, 2521-2528.	1.5	5
85	Gaseous bubble nucleation under shear flow. International Journal of Heat and Mass Transfer, 2009, 52, 4929-4937.	4.8	5
86	Bubble Formation on the Surface of Laser-Irradiated Nanosized Particles. Journal of Heat Transfer, 2014, 136, .	2.1	5
87	Characteristics of LiFePO4/C composite prepared by sonochemical method under multibubble sonoluminescence. Korean Journal of Chemical Engineering, 2016, 33, 688-696.	2.7	5
88	Role of Waste Cost in Thermoeconomic Analysis. Entropy, 2020, 22, 289.	2.2	5
89	Stability and Selective Bifurcation for a Gas Bubble Oscillating under Ultrasound. Journal of the Physical Society of Japan, 1999, 68, 1197-1204.	1.6	4
90	Quantum Nucleation of Bubbles in Liquid Heliums. Journal of the Physical Society of Japan, 2002, 71, 2186-2191.	1.6	4

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91	Relaxation Behavior of Microbubbles in Ultrasonic Field. Japanese Journal of Applied Physics, 2006, 45, 317-322.	1.5	4
92	Bubble Nucleation and Behavior on Micro Square Heaters. Nanoscale and Microscale Thermophysical Engineering, 2006, 10, 95-107.	2.6	4
93	Molecular Dynamics Simulation of Collapsing Phase for a Sonoluminescing Gas Bubble in Sulfuric Acid Solutions: A Comparative Study with Theoretical Results. Journal of the Physical Society of Japan, 2007, 76, 024301.	1.6	4
94	Enhancement of the critical heat flux by using heat spreader. Journal of Mechanical Science and Technology, 2003, 17, 1063-1072.	0.4	3
95	Fluid Flow and Heat Transfer in Microchannels With Rectangular Cross Section. , 2003, , 291.		3
96	Characterization of thiourea-formaldehyde chelating resin by sorption of chromium(III) in water. Korean Journal of Chemical Engineering, 2009, 26, 1717-1722.	2.7	3
97	Pulse Width Measurement of Sonoluminescing Air Bubbles in Various Solutions using a Time-Correlated Single Photon Counting Technique. Journal of Fluid Science and Technology, 2010, 5, 2-13.	0.6	3
98	Dependence of 1/f noise characteristics of NMOSFETs on body bias and temperature in sub-threshold region. , 2011, , .		3
99	Thermoeconomic installation limit of PV/WT hybrid energy systems for Off-grid islands. International Journal of Green Energy, 2017, 14, 961-969.	3.8	3
100	Characterization of Dielectric Relaxation and Reliability of High-k MIM Capacitor Under Constant Voltage Stress. Journal of Semiconductor Technology and Science, 2014, 14, 543-548.	0.4	3
101	Lagging motion of forced nonlinear oscillators. Journal of Sound and Vibration, 2005, 287, 117-128.	3.9	2
102	Proteinaceous bubble and nanoparticle flows in microchannels. Microfluidics and Nanofluidics, 2005, 1, 177-182.	2.2	2
103	Entropy Generation Due to the Heat Transfer for Evolving Spherical Objects. Entropy, 2018, 20, 562.	2.2	2
104	Homogeneous nucleation of nano size H2O bubbles and their growth to micro size in rhyolite melts. Geosciences Journal, 2019, 23, 425-438.	1.2	2
105	Effects of Fluorine Implantation on 1/<I>f</I> Noise, Hot Carrier and NBTI Reliability of MOSFETs. IEICE Transactions on Electronics, 2013, E96.C, 624-629.	0.6	2
106	Thermodynamic, Exergetic and Thermoeconomic Analyses of Double-Effect LiBrâ€“Water Absorption Refrigeration Systems with a 5 kW High Temperature PEMFC as Heat Source for Data Center Applications. Energies, 2022, 15, 3101.	3.1	2
107	Electrohydrodynamic (EHD) enhancement of boiling heat transfer of R 113+WT4% ethanol. Journal of Mechanical Science and Technology, 2006, 20, 681-691.	1.5	1
108	Syntheses of Specialty Nanomaterials at the Multibubble Sonoluminescence Condition. , 2008, , .		1

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109	The absolute metastable limit of liquids under tensionâ€"A review. Journal of Mechanical Science and Technology, 2011, 25, 863-869.	1.5	1
110	Expansion of a Fire-Ball and Subsequent Shock-Wave Propagation due to Underwater TNT Explosion. Transactions of the Korean Society of Mechanical Engineers, B, 2011, 35, 677-683.	0.1	1
111	Capillary Pumped Loop (CPL) With Cone Shaped Capillary Structure for Cooling Electronic Device. , 2006, , 313.		0
112	Economic Optimization of a Cogeneration System for Apartments in Korea. , 2007, , 179.		0
113	Gaseous Bubble Nucleation Under Shear Flow. , 2009, , .		0
114	Characterization of Al<inf>2</inf>O<inf>3</inf>-HfO<inf>2</inf>-Al<inf>2</inf>O<inf>3</inf> sandwiched MIM capacitor under DC and AC stresses. , 2011, , .		
115	Expanding of Fire-Ball and Subsequent Shock Wave Propagation by Explosives Detonation in Underwater. , 2011, , .		0
116	A novel BJT structure for high- performance analog circuit applications. , 2013, , .		0
117	Homogeneous vapor nucleation of water in 3M NaCl solution within a nanopore. International Communications in Heat and Mass Transfer, 2015, 68, 252-257.	5.6	0
118	Exergetic Costs for Thermal Systems. , 0, , .		0
119	Measurement of the Superheat Limit of Liquids and Droplet Behavior at this Limit. Transactions of the Korean Society of Mechanical Engineers, B, 2003, 27, 1317-1326.	0.1	0
120	10.2478/s11814-009-0235-2. , 2011, 26, 1717.		0
121	Novel PNP BJT Structure to Improve Matching Characteristics for Analog and Mixed Signal Integrated Circuit Applications. IEICE Transactions on Electronics, 2013, E96.C, 663-668.	0.6	0