In Cheol Bang

List of Publications by Year
in descending order

96 papers	4,596 citations	147566 31 h-index	98622 67 g-index
96 all docs	96 docs citations	96 times ranked	3147 citing authors

#	Article	IF	Citations
1	A benchmark study on the thermal conductivity of nanofluids. Journal of Applied Physics, 2009, 106, .	1.1	897
2	Boiling heat transfer performance and phenomena of Al2O3â€"water nano-fluids from a plain surface in a pool. International Journal of Heat and Mass Transfer, 2005, 48, 2407-2419.	2.5	641
3	Effects of nanoparticle deposition on surface wettability influencing boiling heat transfer in nanofluids. Applied Physics Letters, 2006, 89, 153107.	1.5	284
4	Investigation of viscosity and thermal conductivity of SiC nanofluids for heat transfer applications. International Journal of Heat and Mass Transfer, 2011, 54, 433-438.	2.5	254
5	Effect of liquid spreading due to nano/microstructures on the critical heat flux during pool boiling. Applied Physics Letters, 2011, 98, .	1.5	188
6	Effects of nanofluids containing graphene/graphene-oxide nanosheets on critical heat flux. Applied Physics Letters, 2010, 97, .	1.5	162
7	Effects of nano-fluid and surfaces with nano structure on the increase of CHF. Experimental Thermal and Fluid Science, 2010, 34, 487-495.	1.5	150
8	Characteristic stability of bare Au-water nanofluids fabricated by pulsed laser ablation in liquids. Optics and Lasers in Engineering, 2009, 47, 532-538.	2.0	141
9	The effect of capillary wicking action of micro/nano structures on pool boiling critical heat flux. International Journal of Heat and Mass Transfer, 2012, 55, 89-92.	2.5	104
10	Study on flow boiling critical heat flux enhancement of graphene oxide/water nanofluid. International Journal of Heat and Mass Transfer, 2013, 65, 348-356.	2.5	85
11	A Novel Role of Three Dimensional Graphene Foam to Prevent Heater Failure during Boiling. Scientific Reports, 2013, 3, 1960.	1.6	75
12	Pool boiling CHF enhancement by graphene-oxide nanofluid under nuclear coolant chemical environments. Nuclear Engineering and Design, 2012, 252, 184-191.	0.8	69
13	Pool boiling CHF of reduced graphene oxide, graphene, and SiC-coated surfaces under highly wettable FC-72. International Journal of Heat and Mass Transfer, 2015, 82, 490-502.	2.5	65
14	Hybrid Graphene and Single-Walled Carbon Nanotube Films for Enhanced Phase-Change Heat Transfer. Nano Letters, 2016, 16, 932-938.	4.5	61
15	Effects of graphene oxide nanofluids on heat pipe performance and capillary limits. International Journal of Thermal Sciences, 2016, 100, 346-356.	2.6	60
16	Visualization of the subcooled flow boiling of R-134a in a vertical rectangular channel with an electrically heated wall. International Journal of Heat and Mass Transfer, 2004, 47, 4349-4363.	2.5	57
17	Pool boiling experiments in reduced graphene oxide colloids. Part I â€" Boiling characteristics. International Journal of Heat and Mass Transfer, 2014, 74, 501-512.	2.5	52
18	Measurement of Key Pool Boiling Parameters in Nanofluids for Nuclear Applications. Journal of Power and Energy Systems, 2008, 2, 340-351.	0.5	48

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19	Experimental study of the effect of a reduced graphene oxide coating on critical heat flux enhancement. International Journal of Heat and Mass Transfer, 2013, 60, 763-771.	2.5	47
20	Optimal synthesis and characterization of Ag nanofluids by electrical explosion of wires in liquids. Nanoscale Research Letters, 2011, 6, 223.	3.1	46
21	Wicking and Spreading of Water Droplets on Nanotubes. Langmuir, 2012, 28, 2614-2619.	1.6	46
22	Heat transfer characteristics of Si and SiC nanofluids during a rapid quenching and nanoparticles deposition effects. International Journal of Heat and Mass Transfer, 2011, 54, 1217-1223.	2.5	45
23	Experimental study of a universal CHF enhancement mechanism in nanofluids using hydrodynamic instability. International Journal of Heat and Mass Transfer, 2014, 70, 844-850.	2.5	43
24	Enhanced heat transfer is dependent on thickness of graphene films: the heat dissipation during boiling. Scientific Reports, 2014, 4, 6276.	1.6	43
25	Comparison of thermal performances of water-filled, SiC nanofluid-filled and SiC nanoparticles-coated heat pipes. International Journal of Heat and Mass Transfer, 2015, 88, 862-871.	2.5	42
26	Critical heat flux performance for flow boiling of R-134a in vertical uniformly heated smooth tube and rifled tubes. International Journal of Heat and Mass Transfer, 2005, 48, 2868-2877.	2.5	41
27	A photographic study on the near-wall bubble behavior in subcooled flow boiling. International Journal of Thermal Sciences, 2002, 41, 609-618.	2.6	38
28	Effects of thickness of boiling-induced nanoparticle deposition on the saturation of critical heat flux enhancement. International Journal of Heat and Mass Transfer, 2014, 78, 506-514.	2.5	38
29	Hybrid heat pipe based passive in-core cooling system for advanced nuclear power plant. Applied Thermal Engineering, 2015, 90, 609-618.	3.0	38
30	Controlled bubble departure diameter on biphilic surfaces for enhanced pool boiling heat transfer performance. International Journal of Heat and Mass Transfer, 2020, 150, 119360.	2.5	38
31	Critical heat flux for CuO nanofluid fabricated by pulsed laser ablation differentiating deposition characteristics. International Journal of Heat and Mass Transfer, 2012, 55, 6908-6915.	2.5	34
32	Flow boiling CHF enhancement in an external reactor vessel cooling (ERVC) channel using graphene oxide nanofluid. Nuclear Engineering and Design, 2013, 265, 310-318.	0.8	33
33	Study on the cooling performance of sea salt solution during reflood heat transfer in a long vertical tube. International Journal of Heat and Mass Transfer, 2013, 60, 105-113.	2.5	32
34	Visualization of a principle mechanism of critical heat flux in pool boiling. International Journal of Heat and Mass Transfer, 2005, 48, 5371-5385.	2.5	28
35	Flow visualization and heat transfer performance of annular thermosyphon heat pipe. Applied Thermal Engineering, 2017, 125, 1456-1468.	3.0	28
36	An axiomatic design approach in development of nanofluid coolants. Applied Thermal Engineering, 2009, 29, 75-90.	3.0	27

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37	Hybrid heat pipe based passive cooling device for spent nuclear fuel dry storage cask. Applied Thermal Engineering, 2016, 96, 277-285.	3.0	27
38	Effect of porous graphene networks and micropillar arrays on boiling heat transfer performance. Experimental Thermal and Fluid Science, 2018, 93, 153-164.	1.5	27
39	Effects of Al2O3 nanoparticles deposition on critical heat flux of R-123 in flow boiling heat transfer. Nuclear Engineering and Technology, 2015, 47, 398-406.	1.1	24
40	Chromia coating with nanofluid deposition and sputtering for accident tolerance, CHF enhancement. International Journal of Heat and Mass Transfer, 2018, 118, 890-899.	2.5	24
41	Effects of hole patterns on surface temperature distributions in pool boiling. International Journal of Heat and Mass Transfer, 2018, 120, 587-596.	2.5	22
42	Effect of nanofluids on reflood heat transfer in a long vertical tube. International Journal of Heat and Mass Transfer, 2012, 55, 4766-4771.	2.5	18
43	Heat transfer characteristics and operation limit of pressurized hybrid heat pipe for small modular reactors. Applied Thermal Engineering, 2017, 112, 560-571.	3.0	18
44	Effect of aluminum oxide and reduced graphene oxide mixtures on critical heat flux enhancement. International Journal of Heat and Mass Transfer, 2018, 116, 858-870.	2.5	18
45	Thermal-Fluid Characterizations of ZnO and SiC Nanofluids for Advanced Nuclear Power Plants. Nuclear Technology, 2010, 170, 16-27.	0.7	17
46	Acoustic analysis on the dynamic motion of vapor-liquid interface for the identification of boiling regime and critical heat flux. International Journal of Heat and Mass Transfer, 2019, 131, 1138-1146.	2.5	17
47	Dynamic mode decomposition for the stability analysis of the Molten Salt Fast Reactor core. Nuclear Engineering and Design, 2020, 362, 110529.	0.8	16
48	Critical heat flux characteristics of nanofluids based on exfoliated graphite nanoplatelets (xGnPs). Materials Letters, 2012, 81, 193-197.	1.3	14
49	The characteristics and visualization of critical heat flux of R-134a flowing in a vertical annular geometry with spacer grids. International Journal of Heat and Mass Transfer, 2008, 51, 91-103.	2.5	13
50	Comparison of flooding limit and thermal performance of annular and concentric thermosyphons at different fill ratios. Applied Thermal Engineering, 2016, 99, 179-188.	3.0	13
51	Natural convection heat transfer characteristics of molten salt with internal heat generation. International Journal of Thermal Sciences, 2018, 129, 181-192.	2.6	13
52	Analysis of natural circulation behaviors and flow instabilities of passive containment cooling system design for advanced PWR using MARS-KS code. International Journal of Heat and Mass Transfer, 2020, 147, 118982.	2.5	13
53	Spent nuclear fuel with a hybrid heat pipe for electricity generation and thermal management. Energy Conversion and Management, 2018, 173, 233-243.	4.4	12
54	Enhanced heat transfer and reduced pressure loss with U-pattern of helical wire spacer arrangement for liquid metal cooled-fast reactor fuel assembly. Annals of Nuclear Energy, 2020, 135, 106971.	0.9	12

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55	Swirling performance of flow-driven rotating mixing vane toward critical heat flux enhancement. International Journal of Heat and Mass Transfer, 2015, 89, 1216-1229.	2.5	11
56	Natural circulation with DOWTHERM RP and its MARS code implementation for molten salt-cooled reactors. International Journal of Energy Research, 2016, 40, 1122-1133.	2.2	11
57	Effect of thermal activity on critical heat flux enhancement in downward-hemispherical surface using graphene oxide coating. International Journal of Heat and Mass Transfer, 2018, 127, 1102-1111.	2.5	11
58	Thermal analysis of lithium ion battery-equipped smartphone explosions. Engineering Science and Technology, an International Journal, 2019, 22, 610-617.	2.0	11
59	Effects of Al2O3/R-123 nanofluids containing C19H40 coreâ€"shell phase change materials on critical heat flux. International Journal of Heat and Mass Transfer, 2012, 55, 7144-7150.	2.5	9
60	Feasibility study of fuel cladding performance for application in ultra-long cycle fast reactor. Journal of Nuclear Materials, 2013, 440, 596-605.	1.3	9
61	Development of Passive In-Core Cooling System for Nuclear Safety Using Hybrid Heat Pipe. Nuclear Technology, 2016, 196, 598-613.	0.7	9
62	Experiment and analysis of hypervapotron mock-ups for preparing the 2nd qualification of the ITER blanket first wall. Fusion Engineering and Design, 2010, 85, 2155-2159.	1.0	8
63	Adoption of nitrogen power conversion system for small scale ultra-long cycle fast reactor eliminating intermediate sodium loop. Annals of Nuclear Energy, 2016, 87, 621-629.	0.9	8
64	Experimental study on a novel liquid metal fin concept preventing boiling critical heat flux for advanced nuclear power reactors. Applied Thermal Engineering, 2016, 98, 743-755.	3.0	8
65	Subchannel analysis of a small ultra-long cycle fast reactor core. Nuclear Engineering and Design, 2014, 270, 389-395.	0.8	7
66	Visual study of ex-pin phenomena for SFR with metal fuel under initial phase of severe accidents by using simulants. Journal of Nuclear Science and Technology, 2016, 53, 1409-1416.	0.7	7
67	Hydraulic control rod drive mechanism concept for passive in-core cooling system (PINCs) in fully passive advanced nuclear power plant. Experimental Thermal and Fluid Science, 2017, 85, 266-278.	1.5	7
68	Thermal-hydraulic analysis of a 7-pin sodium fast reactor fuel bundle with a new pattern of helical wire wrap spacer. Annals of Nuclear Energy, 2018, 114, 198-205.	0.9	7
69	Thermal-hydraulic phenomena inside hybrid heat pipe-control rod for passive heat removal. International Journal of Heat and Mass Transfer, 2018, 119, 472-483.	2.5	7
70	Feasibility study on molten gallium with suspended nanoparticles for nuclear coolant applications. Nuclear Engineering and Design, 2012, 247, 147-159.	0.8	5
71	Effects of SiC and Graphene Oxide Nanoparticleâ€"Coated Surfaces on Quenching Performance. Nuclear Technology, 2015, 190, 345-358.	0.7	5
72	Study on flow characteristics of high-Pr heat transfer fluid near the wall in a rectangular natural circulation loop. International Journal of Heat and Mass Transfer, 2018, 121, 1350-1363.	2.5	5

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73	Adjointâ€based sensitivity analysis of circulating liquid fuel system for the multiphysics model of molten salt reactor. International Journal of Energy Research, 2020, 44, 3934-3953.	2.2	5
74	Design and operation of the transparent integral effect test facility, URI-LO for nuclear innovation platform. Nuclear Engineering and Technology, 2021, 53, 776-792.	1.1	5
75	High heat flux test with HIP-bonded Ferritic Martensitic Steel mock-up for the first wall of the KO HCML TBM. Journal of Nuclear Materials, 2011, 417, 63-66.	1.3	4
76	Experimental observation of the critical heat flux (CHF) enhancement of the nanofluids by the electrical explosion of a wire in liquid. International Journal of Heat and Mass Transfer, 2014, 79, 868-875.	2.5	4
77	Hydrodynamic cavitation characteristics of an orifice system and its effects on CRUD-like SiC deposition. Annals of Nuclear Energy, 2016, 96, 12-18.	0.9	4
78	Numerical analysis on spatial universality of similarity technique inside molten salt reactor system. International Journal of Heat and Mass Transfer, 2018, 116, 569-580.	2.5	4
79	Analysis of hydrogen and dust explosion after vacuum vessel rupture: Preliminary safety analysis of Korean fusion demonstration reactor using MELCOR. International Journal of Energy Research, 2018, 42, 104-116.	2.2	4
80	Revisiting the Rayleighâ€"Taylor instability and critical heat flux with R-123 for different heater sizes and pressures. International Journal of Thermal Sciences, 2016, 100, 324-332.	2.6	3
81	Numerical study of in-vessel retention under the galliumâ€"water external reactor vessel cooling system using MARS-LMR. Journal of Nuclear Science and Technology, 2016, 53, 345-352.	0.7	3
82	Performance of annular flow path heat pipe with a polymer insert controlling compactness for energy applications. International Journal of Heat and Mass Transfer, 2016, 92, 929-939.	2.5	3
83	Effective energy management design of spent fuel dry storage based on hybrid control <scp>rodâ€heat</scp> pipe. International Journal of Energy Research, 2021, 45, 2160-2176.	2.2	3
84	Risk mitigation strategy by Passive IN-core Cooling system for advanced nuclear reactors. Annals of Nuclear Energy, 2018, 111, 554-567.	0.9	2
85	Phenomenological study on the Ex-pin phenomena in the initial phase of HCDA on metal-fueled SFR using simulant. Annals of Nuclear Energy, 2019, 130, 34-46.	0.9	2
86	Experimental validation of simulating natural circulation of liquid metal using water. Nuclear Engineering and Technology, 2020, 52, 1963-1973.	1.1	2
87	Investigation of Boiling Heat Transfer and Critical Heat Flux Enhancement for SiC and Graphene Layers on ITO Surfaces. , 2013, , .		1
88	Risk-reduction of passive decay heat removal system by using gallium-water for UCFR and SMR. International Journal of Energy Research, 2017, 41, 207-219.	2.2	1
89	CHF enhancement partitioning based on surface wettability and porosity on CeO2 nanoparticle coated surface. AIP Advances, 2019, 9, .	0.6	1
90	Effect of CVD grown graphene monolayer thermal effusivity on phase change heat transfer in 2-D plate condition with highly wettable FC-72. , 2020, , .		1

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91	CFD Analysis of a Concept of Nuclear Hybrid Heat Pipe with Control Rod. The KSFM Journal of Fluid Machinery, 2014, 17, 109-114.	0.0	1
92	CHF Enhancement of Pool Boiling in Graphene Oxide Nanofluid With Chemical Reduction. , 2013, , .		0
93	Study on the effects of flow-driven rotational mixing vanes by flow pattern tracking. Nuclear Engineering and Design, 2020, 365, 110661.	0.8	0
94	Study on blockage after downward discharge of the molten metallic fuel with radiographic visualization. Nuclear Engineering and Technology, 2022, 54, 117-129.	1.1	0
95	Application of adjoint-based sensitivity analysis to natural circulation of high-Pr fluid inside heat transport system. Nuclear Engineering and Design, 2021, 381, 111349.	0.8	0
96	DESIGN OF BIPHILIC SURFACES WITH NANOSTRUCTURES FOR POOL BOILING CHF ENHANCEMENT. The Proceedings of the International Conference on Nuclear Engineering (ICONE), 2019, 2019.27, 1749.	0.0	0