

Shinichi Ookawara

List of Publications by Year in descending order

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124
papers

4,223
citations

81839

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times ranked

3657
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental study of using system of flat heat pipe-phase change material inclusion heat sink for thermal regulation of simulated PV. <i>Experimental Heat Transfer</i> , 2023, 36, 648-664.	2.3	10
2	Influence of Varying the Stage Aspect Ratio on the Performance of Multi-Stage Savonius Wind Rotors. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2022, 144, .	1.4	4
3	Numerical and experimental investigation on air distributor design of fluidized bed reactor of sawdust pyrolysis. <i>Energy</i> , 2022, 239, 122179.	4.5	1
4	Potential application of cascade adsorption-vapor compression refrigeration system powered by photovoltaic/thermal collectors. <i>Applied Thermal Engineering</i> , 2022, 207, 118075.	3.0	24
5	Numerical study on mass transfer in a falling film on structured plates with micro-baffles. <i>Chemical Engineering and Processing: Process Intensification</i> , 2022, , 108903.	1.8	0
6	Energy management of standalone cascaded adsorption-compression refrigeration system using hybrid biomass-solar-wind energies. <i>Energy Conversion and Management</i> , 2022, 258, 115387.	4.4	39
7	Renewable energy-based cascade adsorption-compression refrigeration system: Energy, exergy, exergoeconomic and enviroeconomic perspectives. <i>Energy</i> , 2022, 253, 124127.	4.5	24
8	Performance assessment of photovoltaic/thermal (PVT) hybrid adsorption-vapor compression refrigeration system. <i>Journal of Energy Systems</i> , 2022, 6, 209-220.	0.8	14
9	Energy, exergy, economic and environmental (4E) assessment of hybrid solar system powering adsorption-parallel/series ORC multigeneration system. <i>Chemical Engineering Research and Design</i> , 2022, 164, 761-780.	2.7	35
10	Performance evaluation of PV panels/wind turbines hybrid system for green hydrogen generation and storage: Energy, exergy, economic, and enviroeconomic. <i>Energy Conversion and Management</i> , 2022, 267, 115870.	4.4	69
11	Kinetics and physical analyses for pyrolyzed Egyptian agricultural and woody biomasses: effect of microwave drying. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 2855-2868.	2.9	14
12	Visible-light-driven photocatalytic disinfection of raw surface waters (300â€“5000 CFU/mL) using reusable coated Ru/WO ₃ /ZrO ₂ . <i>Journal of Hazardous Materials</i> , 2021, 402, 123514.	6.5	29
13	Thermal analysis of high concentrator photovoltaic module using convergent-divergent microchannel heat sink design. <i>Applied Thermal Engineering</i> , 2021, 183, 116201.	3.0	29
14	Flow boiling in a four-compartment heat sink for high-heat flux cooling: A parametric study. <i>Energy Conversion and Management</i> , 2021, 230, 113778.	4.4	16
15	Performance evaluation of a novel vertical axis wind turbine using twisted blades in multi-stage Savonius rotors. <i>Energy Conversion and Management</i> , 2021, 235, 114013.	4.4	38
16	Concentrator photovoltaic thermal management using a new design of double-layer microchannel heat sink. <i>Solar Energy</i> , 2021, 220, 552-570.	2.9	31
17	Hybrid sorption-vapor compression cooling systems: A comprehensive overview. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 143, 110912.	8.2	46
18	Performance and economic analysis of solar-powered adsorption-based hybrid cooling systems. <i>Energy Conversion and Management</i> , 2021, 238, 114134.	4.4	29

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19	Double-layered catalytic wall-plate microreactor for process intensification of dry reforming of methane: Reaction activity improvement and coking suppression. <i>Chemical Engineering and Processing: Process Intensification</i> , 2021, 164, 108406.	1.8	11
20	Influence of encapsulation materials on the thermal performance of concentrator photovoltaic cells. <i>Case Studies in Thermal Engineering</i> , 2021, 26, 101135.	2.8	9
21	Energy/exergy analysis of solar driven mechanical vapor compression desalination system with nano-filtration pretreatment. <i>Desalination</i> , 2021, 509, 115078.	4.0	30
22	Effect of guidewire insertion in fractional flow reserve procedure for real geometry using computational fluid dynamics. <i>BioMedical Engineering OnLine</i> , 2021, 20, 95.	1.3	8
23	Experimental study of the performance of concentrator photovoltaic/thermoelectric generator system integrated with a new <sc>3D</sc> printed microchannel heat sink. <i>International Journal of Energy Research</i> , 2021, 45, 7741-7763.	2.2	13
24	Performance evaluation of concentrator photovoltaic systems integrated with combined passive cooling techniques. <i>Solar Energy</i> , 2021, 228, 447-463.	2.9	19
25	Predicting the onset of consequent stenotic regions in carotid arteries using computational fluid dynamics. <i>Physics of Fluids</i> , 2021, 33, .	1.6	21
26	A 3d model of the effect of using heat spreader on the performance of photovoltaic panel (PV). <i>Mathematics and Computers in Simulation</i> , 2020, 167, 78-91.	2.4	18
27	Performance, limits, and thermal stress analysis of high concentrator multijunction solar cell under passive cooling conditions. <i>Applied Thermal Engineering</i> , 2020, 164, 114497.	3.0	31
28	Photocatalytic Synthesis of <i>p</i>-Anisaldehyde in a Mini Slurryâ€Bubble Reactor under Solar Light Irradiation. <i>Canadian Journal of Chemical Engineering</i> , 2020, 98, 119-126.	0.9	1
29	Photocatalytic degradation of trimethoprim using S-TiO ₂ and Ru/WO ₃ /ZrO ₂ immobilized on reusable fixed plates. <i>Journal of Water Process Engineering</i> , 2020, 33, 101023.	2.6	42
30	Photo-Fenton Degradation of Carbofuran in Helical Tube Microreactor and Kinetic Modeling. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 3811-3819.	1.8	18
31	Thermal management of concentrator photovoltaic systems using nano-enhanced phase change materialsâ€based heat sink. <i>International Journal of Energy Research</i> , 2020, 44, 7713-7733.	2.2	14
32	Analysis of the effect of guidewire position on stenosis diagnosis using computational fluid dynamics. <i>Computers in Biology and Medicine</i> , 2020, 121, 103777.	3.9	8
33	Solar chimney combined with earth to-air heat exchanger for passive cooling of residential buildings in hot areas. <i>Solar Energy</i> , 2020, 206, 145-162.	2.9	47
34	Performance enhancement of twisted-bladed Savonius vertical axis wind turbines. <i>Energy Conversion and Management</i> , 2020, 209, 112673.	4.4	67
35	Evaluation of transparent acrylic stepped solar still equipped with internal and external reflectors and copper fins. <i>Thermal Science and Engineering Progress</i> , 2020, 18, 100518.	1.3	29
36	Thermal management of high concentrator solar cell using new designs of stepwise varying width microchannel cooling scheme. <i>Applied Thermal Engineering</i> , 2020, 172, 115124.	3.0	39

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37	Characteristics of coconut protein separation process by means of membrane ultrafiltration. <i>Journal of Food Process Engineering</i> , 2020, 43, e13363.	1.5	1
38	Optimization of stepwise varying width microchannel heat sink for high heat flux applications. <i>Case Studies in Thermal Engineering</i> , 2020, 18, 100587.	2.8	33
39	Integrated adsorption-based multigeneration systems: A critical review and future trends. <i>International Journal of Refrigeration</i> , 2020, 116, 129-145.	1.8	28
40	Numerical study on porosity distribution and hydrodynamics of packed bed in narrow square channels. <i>Chemical Engineering and Processing: Process Intensification</i> , 2020, 151, 107905.	1.8	3
41	Temperature uniformity enhancement of densely packed high concentrator photovoltaic module using four quadrants microchannel heat sink. <i>Solar Energy</i> , 2020, 202, 446-464.	2.9	41
42	Assessment of wind turbine transient overvoltages when struck by lightning: experimental and analytical study. <i>IET Renewable Power Generation</i> , 2019, 13, 1360-1368.	1.7	18
43	Numerical analyses of hybrid jet impingement/microchannel cooling device for thermal management of high concentrator triple-junction solar cell. <i>Applied Energy</i> , 2019, 253, 113538.	5.1	63
44	Performance enhancement of direct methanol fuel cell using multi-zone narrow flow fields. <i>International Journal of Energy Research</i> , 2019, 43, 8257.	2.2	3
45	An experimental study of the performance of the solar cell with heat sink cooling system. <i>Energy Procedia</i> , 2019, 162, 127-135.	1.8	46
46	Micro-structured packed bed reactors for solar photocatalysis: impacts of packing size and material on light harnessing. <i>Photochemical and Photobiological Sciences</i> , 2019, 18, 577-582.	1.6	7
47	Solar chimney optimization for enhancing thermal comfort in Egypt: An experimental and numerical study. <i>Solar Energy</i> , 2019, 180, 524-536.	2.9	74
48	Performance evaluation of a new design of concentrator photovoltaic and solar thermoelectric generator hybrid system. <i>Energy Conversion and Management</i> , 2019, 195, 1382-1401.	4.4	54
49	Thermal management of concentrator photovoltaic systems using new configurations of phase change material heat sinks. <i>Solar Energy</i> , 2019, 183, 632-652.	2.9	75
50	Thermal management of concentrator photovoltaic systems using two-phase flow boiling in double-layer microchannel heat sinks. <i>Applied Energy</i> , 2019, 241, 404-419.	5.1	77
51	Thermal management of electronic devices and concentrator photovoltaic systems using phase change material heat sinks: Experimental investigations. <i>Renewable Energy</i> , 2019, 141, 322-339.	4.3	63
52	Effect of compression ratio on performance, combustion and emissions characteristics of compression ignition engine fueled with jojoba methyl ester. <i>Renewable Energy</i> , 2019, 141, 632-645.	4.3	35
53	Experimental, analytical, and numerical investigation into the feasibility of integrating a passive Trombe wall into a single room. <i>Applied Thermal Engineering</i> , 2019, 154, 751-768.	3.0	66
54	CFD modelling of mass and heat dispersion in sphere fixed bed with porosity-dependent segmented-continuum approaches. <i>Chemical Engineering Research and Design</i> , 2019, 141, 93-114.	2.7	14

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55	Enhancing the performance of concentrator photovoltaic systems using Nanoparticle-phase change material heat sinks. <i>Energy Conversion and Management</i> , 2019, 179, 229-242.	4.4	98
56	Enhancing under-rib mass transport in proton exchange membrane fuel cells using new serpentine flow field designs. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 30644-30662.	3.8	27
57	Numerical Analyses of High Concentrator Triple-Junction Solar Cell under Jet Impingement Cooling. <i>Energy Procedia</i> , 2018, 152, 1051-1056.	1.8	8
58	Immobilization of S-TiO ₂ on reusable aluminum plates by polysiloxane for photocatalytic degradation of 2,4-dichlorophenol in water. <i>Journal of Water Process Engineering</i> , 2018, 26, 329-335.	2.6	60
59	Parametric study and optimization of a solar chimney passive ventilation system coupled with an earth-to-air heat exchanger. <i>Sustainable Energy Technologies and Assessments</i> , 2018, 30, 263-278.	1.7	46
60	Thermal and structure analyses of high concentrator solar cell under confined jet impingement cooling. <i>Energy Conversion and Management</i> , 2018, 176, 39-54.	4.4	69
61	Uniform cooling for concentrator photovoltaic cells and electronic chips by forced convective boiling in 3D-printed monolithic double-layer microchannel heat sink. <i>Energy Conversion and Management</i> , 2018, 166, 356-371.	4.4	69
62	Investigation of optimum conditions and costs estimation for degradation of phenol by solar photo-Fenton process. <i>Applied Water Science</i> , 2017, 7, 375-382.	2.8	37
63	Multiphase photocatalytic microreactors. <i>Chemical Engineering Science</i> , 2017, 169, 67-77.	1.9	61
64	Efficient fuel utilization by enhancing the under-rib mass transport using new serpentine flow field designs of direct methanol fuel cells. <i>Energy Conversion and Management</i> , 2017, 144, 88-103.	4.4	43
65	Bioethanol production from paperboard mill sludge using acid-catalyzed bio-derived choline acetate ionic liquid pretreatment followed by fermentation process. <i>Energy Conversion and Management</i> , 2017, 145, 255-264.	4.4	40
66	Performance study and analysis of an inclined concentrated photovoltaic-phase change material system. <i>Solar Energy</i> , 2017, 150, 229-245.	2.9	114
67	Performance enhancement of the concentrated photovoltaic using different phase change material configurations. <i>Energy Procedia</i> , 2017, 141, 61-65.	1.8	10
68	Adaptive reference voltage-based MPPT technique for PV applications. <i>IET Renewable Power Generation</i> , 2017, 11, 715-722.	1.7	78
69	A New Model for Estimation of Just-Suspension Speed Based on Lift Force for Solid-Liquid Suspension in a Stirred Tank. <i>Journal of Chemical Engineering of Japan</i> , 2016, 49, 737-746.	0.3	5
70	Analysis and simulation of concentrating photovoltaic systems with a microchannel heat sink. <i>Solar Energy</i> , 2016, 136, 35-48.	2.9	73
71	Process Intensification of Photocatalytic <i>p</i>-Anisaldehyde Synthesis by Using Mini Batch Reactor and UV-LED. <i>Journal of Chemical Engineering of Japan</i> , 2016, 49, 130-135.	0.3	7
72	A study of wavy falling film flow on micro-baffled plate. <i>Chemical Engineering Science</i> , 2016, 149, 104-116.	1.9	23

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73	Earth-Air Heat Exchanger thermal performance in Egyptian conditions: Experimental results, mathematical model, and Computational Fluid Dynamics simulation. <i>Energy Conversion and Management</i> , 2016, 122, 25-38.	4.4	89
74	Performance enhancement of concentrated photovoltaic systems using a microchannel heat sink with nanofluids. <i>Energy Conversion and Management</i> , 2016, 119, 289-303.	4.4	171
75	Achieving standard natural ventilation rate of dwellings in a hot-arid climate using solar chimney. <i>Energy and Buildings</i> , 2016, 133, 360-370.	3.1	43
76	The Influence of Multi-walled Carbon Nanotubes Additives into Non-edible Biodiesel-diesel Fuel Blend on Diesel Engine Performance and Emissions. <i>Energy Procedia</i> , 2016, 100, 166-172.	1.8	59
77	Solar photocatalytic degradation of phenol by TiO ₂ /AC prepared by temperature impregnation method. <i>Desalination and Water Treatment</i> , 2016, 57, 835-844.	1.0	50
78	Enhancement of photocatalytic activity of TiO ₂ by immobilization on activated carbon for degradation of pharmaceuticals. <i>Journal of Environmental Chemical Engineering</i> , 2016, 4, 1929-1937.	3.3	141
79	Improved WO ₃ photocatalytic efficiency using ZrO ₂ and Ru for the degradation of carbofuran and ampicillin. <i>Journal of Hazardous Materials</i> , 2016, 302, 225-231.	6.5	106
80	Adsorption working pairs for adsorption cooling chillers: A review based on adsorption capacity and environmental impact. <i>Renewable and Sustainable Energy Reviews</i> , 2015, 50, 445-456.	8.2	68
81	Mathematical modeling of bio-hydrogen production from starch wastewater via up-flow anaerobic staged reactor. <i>Desalination and Water Treatment</i> , 2015, 54, 50-58.	1.0	14
82	Comparison of solar TiO ₂ photocatalysis and solar photo-Fenton for treatment of pesticides industry wastewater: Operational conditions, kinetics, and costs. <i>Journal of Water Process Engineering</i> , 2015, 8, 55-63.	2.6	165
83	Performance and Sizing of Solar Driven dc Motor Vapor Compression Refrigerator with Thermal Storage in Hot Arid Remote Areas. <i>Energy Procedia</i> , 2015, 70, 634-643.	1.8	23
84	Performance of a PV module integrated with standalone building in hot arid areas as enhanced by surface cooling and cleaning. <i>Energy and Buildings</i> , 2015, 88, 100-109.	3.1	96
85	Degradation of four pharmaceuticals by solar photo-Fenton process: Kinetics and costs estimation. <i>Journal of Environmental Chemical Engineering</i> , 2015, 3, 46-51.	3.3	157
86	Continuous biohydrogen production from starch wastewater via sequential dark-photo fermentation with emphasize on maghemite nanoparticles. <i>Journal of Industrial and Engineering Chemistry</i> , 2015, 21, 500-506.	2.9	94
87	Intensification of Photochemical Wastewater Decolorization Process Using Microreactors. <i>Journal of Chemical Engineering of Japan</i> , 2014, 47, 136-140.	0.3	12
88	Steady State Permeate Flux Estimation in Cross-Flow Ultrafiltration of Protein Solution. <i>Separation Science and Technology</i> , 2014, 49, 1469-1478.	1.3	6
89	Low-cost polymeric photocatalytic microreactors: Catalyst deposition and performance for phenol degradation. <i>Journal of Environmental Chemical Engineering</i> , 2014, 2, 1487-1494.	3.3	22
90	A Numerical Study on Cooling-Solidification Process of Urea Particles in Prilling Tower. <i>Journal of Chemical Engineering of Japan</i> , 2014, 47, 628-634.	0.3	6

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91	Effect of diffuser configuration on the flow field pattern inside wind concentrator. , 2013, , .		3
92	The impact of Novel Process Windows on the Claisen rearrangement. Tetrahedron, 2013, 69, 2885-2890.	1.0	32
93	Environmental and Economic Aspects of Hydrogen and Methane Production from Starch Wastewater Industry. Journal of Water and Environment Technology, 2013, 11, 463-475.	0.3	16
94	A Model for Transport Phenomena in a Cross-Flow Ultrafiltration Module with Microchannels. Membranes, 2011, 1, 13-24.	1.4	5
95	Visualization and VOF Modeling of Large Bubble Rising in Narrow Fixed Bed. Journal of Chemical Engineering of Japan, 2010, 43, 17-22.	0.3	2
96	A combined model for the prediction of the permeation flux during the cross-flow ultrafiltration of a whey suspension. Journal of Membrane Science, 2010, 361, 71-77.	4.1	15
97	Process intensification of particle separation by lift force in arc microchannel with bifurcation. Chemical Engineering and Processing: Process Intensification, 2010, 49, 697-703.	1.8	11
98	A Numerical Study on Interparticle Collisions in a Microseparator/Classifier by a Macroscopic Particle Model. Journal of Chemical Engineering of Japan, 2010, 43, 56-62.	0.3	1
99	Characterization of microseparator/classifier with a simple arc microchannel. AIChE Journal, 2009, 55, 24-34.	1.8	16
100	A High-Fidelity CFD Model of Methane Steam Reforming in a Packed Bed Reactor. Journal of Chemical Engineering of Japan, 2009, 42, S73-S78.	0.3	57
101	Mixing Spectrum of an Impeller Based on Whole Mixing Capacity. Journal of Chemical Engineering of Japan, 2009, 42, 861-867.	0.3	3
102	A Numerical Study of the Influence of Particle Density on Lift Force-Induced Separation in a Micro-Separator/Classifier by a Macroscopic Particle Model. Journal of Chemical Engineering of Japan, 2007, 40, 986-992.	0.3	3
103	Quasi-direct numerical simulation of lift force-induced particle separation in a curved microchannel by use of a macroscopic particle model. Chemical Engineering Science, 2007, 62, 2454-2465.	1.9	18
104	Instantaneous Successive Particle Collisions with an Impeller in a Stirred Tank. Journal of Chemical Engineering of Japan, 2007, 40, 12-16.	0.3	3
105	Numerical study on development of particle concentration profiles in a curved microchannel. Chemical Engineering Science, 2006, 61, 3714-3724.	1.9	69
106	A New Graphical Method for Calculation of Mass Transfer Time in a Deep Bubble Bed. Journal of Chemical Engineering of Japan, 2006, 39, 7-13.	0.3	0
107	The Effect of Superficial Gas Velocity and Aerated Liquid Height on the Spatial Distribution of Local Liquid-Phase Axial Dispersion Coefficients in a Bubble Column. Journal of Chemical Engineering of Japan, 2005, 38, 1-11.	0.3	3
108	Feasibility study on concentration of slurry and classification of contained particles by microchannel. Chemical Engineering Journal, 2004, 101, 171-178.	6.6	89

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109	The Influence of Channel Depth on the Performance of a Micro-Separator/Classifier. Kagaku Kogaku Ronbunshu, 2004, 30, 135-141.	0.1	5
110	Stability of Interface between Two Liquids in T-shape Confluence of Microchannels. Kagaku Kogaku Ronbunshu, 2004, 30, 148-153.	0.1	5
111	Drop Size Distribution in Liquid-Liquid Mixing. Journal of Chemical Engineering of Japan, 2003, 36, 940-945.	0.3	4
112	Quality of Mixedness Profiles Based on Spatial Distribution of Local Mass Transfer Coefficients in a Bubble Column. Canadian Journal of Chemical Engineering, 2003, 81, 597-603.	0.9	8
113	Applicability of the Dilatancy Model to Suspensions in Shear-thinning Medium. Kagaku Kogaku Ronbunshu, 2003, 29, 714-717.	0.1	1
114	Particle Collision Frequencies with Impeller and Wall in a Stirred Tank. Kagaku Kogaku Ronbunshu, 2003, 29, 685-691.	0.1	3
115	Theoretical Study on Particle Size Distribution and Suspension Viscosity.. Kagaku Kogaku Ronbunshu, 2002, 28, 322-329.	0.1	1
116	Estimation of Red Cell Deformability Based on Flow Curve of Whole Blood in the Higher Shear Rate Range.. Kagaku Kogaku Ronbunshu, 2001, 27, 228-235.	0.1	0
117	Shear Thickening Flow Characteristics Model of Suspensions.. Kagaku Kogaku Ronbunshu, 2000, 26, 366-373.	0.1	3
118	Unified Entry Length Correlation for Newtonian, Power Law and Bingham Fluids in Laminar Pipe Flow at Low Reynolds Number.. Journal of Chemical Engineering of Japan, 2000, 33, 675-678.	0.3	16
119	Flow Properties of Newtonian and Non-Newtonian Fluid Downstream of Stenosis.. Journal of Chemical Engineering of Japan, 2000, 33, 582-590.	0.3	8
120	Time-Dependent Mixing Behaviors in Lower and Upper Zones of Bubble Column.. Journal of Chemical Engineering of Japan, 2000, 33, 761-767.	0.3	14
121	A Fundamental Approach to Bubble Column Scale-Up Based on Quality of Mixedness.. Journal of Chemical Engineering of Japan, 1999, 32, 431-439.	0.3	22
122	Non-Newtonian Flow Characteristics of Blood in the Shear Rate Range of 100 - 10,000 s ⁻¹ .. Journal of Chemical Engineering of Japan, 1994, 27, 610-615.	0.3	6
123	Blood viscometer with vacuum glass suction tube and needle.. Journal of Chemical Engineering of Japan, 1991, 24, 215-220.	0.3	12
124	Machine Learning in Porous Materials: SVM-Based Characterization and CGAN-Driven Materials Discovery and Design. ACS Symposium Series, 0, , 181-209.	0.5	1