

Pradip Dutta

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

1,252
citations

394421

19
h-index

395702

33
g-index

60
all docs

60
docs citations

60
times ranked

824
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical and experimental studies on a pressurized hybrid tubular and cavity solar air receiver using a Scheffler reflector. Applied Thermal Engineering, 2022, 214, 118898.	6.0	3
2	Development of a Canister Module for PCM Coupled Heat Pipe in Spacecraft Thermal Management. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 1804-1815.	2.5	2
3	Globularization of Primary Phase of Al-7Si-0.3Mg Alloy During Cooling Slope Processing and Isothermal Holding. Transactions of the Indian Institute of Metals, 2021, 74, 1241-1251.	1.5	10
4	Ultrahigh-Energy-Density Sorption Thermal Battery Enabled by Graphene Aerogel-Based Composite Sorbents for Thermal Energy Harvesting from Air. ACS Energy Letters, 2021, 6, 1795-1802.	17.4	82
5	Optical characterization of a fixed focus Scheffler reflector for pressurized solar receiver testing. Solar Energy, 2021, 227, 89-100.	6.1	8
6	Studies on dynamics of two-stage air cooled water/silica gel adsorption system. Applied Thermal Engineering, 2020, 178, 115552.	6.0	23
7	Determination of Optimum Process Parameters and Residual Stress in Friction Welding of Thixocast A356 Aluminum Alloy. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2020, 51, 3079-3088.	2.1	1
8	Three-dimensional phase field simulation of spheroidal grain formation during semi solid processing of Al-7Si-0.3Mg alloy. Computational Materials Science, 2020, 184, 109856.	3.0	6
9	Activated carbon-carbon dioxide based two stage adsorption compression Brayton cycle power generation. Adsorption, 2019, 25, 1663-1672.	3.0	2
10	Measurement of radiation heat transfer in supercritical carbon dioxide medium. Measurement: Journal of the International Measurement Confederation, 2019, 139, 40-48.	5.0	2
11	Studies on die filling of A356 Al alloy and development of a steering knuckle component using rheo pressure die casting system. Journal of Materials Processing Technology, 2019, 271, 293-311.	6.3	35
12	Multiphase Model of Semisolid Slurry Generation and Isothermal Holding During Cooling Slope Rheoprocessing of A356 Al Alloy. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 1925-1944.	2.1	16
13	Numerical and Experimental Evaluation of Ceramic Honeycombs for Thermal Energy Storage. Transactions of the Indian Ceramic Society, 2017, 76, 102-107.	1.0	9
14	Coupled modeling of a directly heated tubular solar receiver for supercritical carbon dioxide Brayton cycle: Optical and thermal-fluid evaluation. Applied Thermal Engineering, 2016, 109, 970-978.	6.0	32
15	Microstructure Evolution and Rheological Behavior of Cooling Slope Processed Al-Si-Cu-Fe Alloy Slurry. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 2243-2256.	2.2	30
16	Radiative heating of supercritical carbon dioxide flowing through tubes. Applied Thermal Engineering, 2016, 109, 871-877.	6.0	11
17	Phase field modelling of microstructure evolution and ripening driven grain growth during cooling slope processing of A356 Al alloy. Computational Materials Science, 2016, 125, 8-19.	3.0	22
18	Coupled modeling of a directly heated tubular solar receiver for supercritical carbon dioxide Brayton cycle: Structural and creep-fatigue evaluation. Applied Thermal Engineering, 2016, 109, 979-987.	6.0	54

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19	Solar driven carbon dioxide Brayton cycle power generation with thermal compression. Applied Thermal Engineering, 2016, 109, 854-860.	6.0	22
20	Numerical Investigations for Leakage and Windage Heating in Straight-Through Labyrinth Seals. Journal of Engineering for Gas Turbines and Power, 2016, 138, .	1.1	7
21	Effect of Rub-Grooves on Leakage and Windage Heating in Straight-Through Labyrinth Seals. Journal of Tribology, 2016, 138, .	1.9	8
22	Effect of semi-solid heat treatment on elevated temperature plasticity of 304L stainless steel. Journal of Materials Science, 2016, 51, 4306-4319.	3.7	2
23	Silica Gel+Water Adsorber Chiller and Desalination System: A Transient Heat Transfer Study. Journal of Thermal Science and Engineering Applications, 2016, 8, .	1.5	11
24	Performance Analysis of Heat Sinks With Phase-Change Materials Subjected to Transient and Cyclic Heating. Heat Transfer Engineering, 2015, 36, 1349-1359.	1.9	21
25	Rheological Behavior of Al-7Si-0.3Mg Alloy at Mushy State. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2015, 46, 1302-1313.	2.1	28
26	Performance evaluation of a two-stage silica gel+water adsorption based cooling-cum-desalination system. International Journal of Refrigeration, 2015, 58, 186-198.	3.4	69
27	High-Temperature Workability of Thixocast A356 Aluminum Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 3248-3259.	2.2	7
28	Die Filling Behaviour of Semi Solid A356 Al Alloy Slurry During Rheo Pressure Die Casting. Transactions of the Indian Institute of Metals, 2015, 68, 1215-1220.	1.5	11
29	Semisolid Processing of A380 Al Alloy Using Cooling Slope. Materials and Manufacturing Processes, 2014, 29, 422-428.	4.7	23
30	Phase Field Simulation of Equiaxed Microstructure Formation during Semi-solid Processing of A380 Al Alloy. ISIJ International, 2014, 54, 1601-1610.	1.4	16
31	Optimization of degree of sphericity of primary phase during cooling slope casting of A356 Al alloy: Taguchi method and regression analysis. Measurement: Journal of the International Measurement Confederation, 2014, 55, 605-615.	5.0	46
32	Realistic minimum desorption temperatures and compressor sizing for activated carbon+HFC 134a adsorption coolers. Applied Thermal Engineering, 2013, 51, 551-559.	6.0	10
33	Study of Freckles Formation During Directional Solidification Under the Influence of Single-Phase and Multiphase Convection. Journal of Thermal Science and Engineering Applications, 2013, 5, .	1.5	8
34	Role of Melt Convection on Optimization of PCM-Based Heat Sink Under Cyclic Heat Load. Heat Transfer Engineering, 2013, 34, 950-958.	1.9	8
35	Thermodynamic Property Slopes from Primary Measurements. International Journal of Mechanical Engineering Education, 2012, 40, 79-91.	1.0	1
36	Evaporation Heat Transfer Coefficient in a Capillary Pumped Loop and Loop Heat Pipe for Different Working Fluids. Heat Transfer Engineering, 2012, 33, 765-774.	1.9	15

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37	Thermal Management of Electronics Using PCM-Based Heat Sink Subjected to Cyclic Heat Load. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 464-473.	2.5	50
38	Microstructural Evolution of A356 Al Alloy During Flow Along a Cooling Slope. Transactions of the Indian Institute of Metals, 2012, 65, 669-672.	1.5	40
39	Waring and Riedel Functions for the Liquid-Vapor Coexistence Curve. Industrial & Engineering Chemistry Research, 2012, 51, 3197-3202.	3.7	8
40	Calculation of Heat of Adsorption of Gases and Refrigerants on Activated Carbons from Direct Measurements Fitted to the Dubinin-Astakhov Equation. Adsorption Science and Technology, 2012, 30, 549-565.	3.2	19
41	Grain Floatation During Equiaxed Solidification of an Al-Cu Alloy in a Side-Cooled Cavity: Part I-Experimental Studies. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2011, 42, 825-836.	2.1	14
42	Grain Floatation During Equiaxed Solidification of an Al-Cu Alloy in a Side-Cooled Cavity: Part II-Numerical Studies. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2011, 42, 783-799.	2.1	15
43	A Generalized Enthalpy Update Scheme for Solidification of a Binary Alloy with Solid Phase Movement. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2011, 42, 1075-1079.	2.1	8
44	A Generalized Enthalpy Update Scheme for Solidification of a Binary Alloy with Solid Phase Movement. , 2011, 42, 1075.		1
45	Theoretical and Experimental Studies on an Ammonia-Based Loop Heat Pipe With a Flat Evaporator. IEEE Transactions on Components and Packaging Technologies, 2010, 33, 478-487.	1.3	19
46	Modeling of growth and motion of equiaxed dendrites in a convecting melt. , 2010, , .		0
47	Numerical studies on columnar-to-equiaxed transition in directional solidification of binary alloys. Journal of Materials Science, 2009, 44, 3952-3961.	3.7	16
48	Numerical Study of Heat Transfer From Pin-Fin Heat Sink Using Steady and Pulsated Impinging Jets. IEEE Transactions on Components and Packaging Technologies, 2009, 32, 859-867.	1.3	13
49	Computational Modeling of GMAW Process for Joining Dissimilar Aluminum Alloys. Numerical Heat Transfer; Part A: Applications, 2008, 53, 432-455.	2.1	15
50	Numerical Studies on Channel Formation and Growth During Solidification: Effect of Process Parameters. Journal of Heat Transfer, 2007, 129, 548-558.	2.1	14
51	Thermodynamic formalism of minimum heat source temperature for driving advanced adsorption cooling device. Applied Physics Letters, 2007, 91, 111902.	3.3	50
52	Remelting of Solid and its Effect on Macrosegregation During Solidification. Numerical Heat Transfer; Part A: Applications, 2007, 51, 59-83.	2.1	21
53	Evaluation of Adsorption Parameters and Heats of Adsorption through Desorption Measurements. Journal of Chemical & Engineering Data, 2007, 52, 2419-2424.	1.9	62
54	Effects of Solutal Undercooling on Three-Dimensional Double-Diffusive Convection and Macrosegregation during Solidification of a Binary Alloy. Numerical Heat Transfer; Part A: Applications, 2005, 48, 261-281.	2.1	10

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55	Analytical Solutions for Heat Transfer During Cyclic Melting and Freezing of a Phase Change Material Used in Electronic or Electrical Packaging. Journal of Electronic Packaging, Transactions of the ASME, 2003, 125, 126-133.	1.8	20
56	NUMERICAL MODELING OF HEAT AND MASS TRANSFER IN LASER SURFACE ALLOYING: NON-EQUILIBRIUM SOLIDIFICATION EFFECTS. Materials and Manufacturing Processes, 2002, 17, 455-468.	4.7	11
57	The effect of solutal undercooling on double-diffusive convection and macrosegregation during binary alloy solidification: a numerical investigation. International Journal for Numerical Methods in Fluids, 2002, 38, 895-917.	1.6	24
58	Adsorption of 1,1,1,2-Tetrafluoroethane on Activated Charcoal. Journal of Chemical & Engineering Data, 2001, 46, 417-422.	1.9	62
59	A generalized formulation for evaluation of latent heat functions in enthalpy-based macroscopic models for convection-diffusion phase change processes. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2001, 32, 562-564.	2.1	98
60	Effect of constitutional supercooling on the numerical solution of species concentration distribution in laser surface alloying. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2001, 32, 969-972.	2.1	1