

Publication of Papers in SCI/SCIE Journals in Career:

Authors	Title	Journal	IF
S. Singh, A. Kumar, S. K. Bhaumik , Pawan K. Singh*, S. Narayanan	Thickness Profile Measurements of Acoustic-Induced Maneuvering of Thin Film Evaporation	<i>Heat Transfer Engineering</i> , 2025,1,11	1.6 Q2
N. Jada, S.K.Bhaumik*	Hydrodynamic of Parallel Flow in Novel Microextractors: Review	<i>Physics of Fluids</i> , 2024, 36 (10), 101308	4.1 Q1
ShivShankar, P.D.Chavan, S.Saha, G. Sahu, S.K.Bhaumik*	Infusion of Fly Ash in Alkali salt promoted MgO-based Sorbent for CO2 Capture at Elevated Temperatures	<i>Advanced Powder Technology</i> , 2024, 35(12),104712	4.2 Q1
S. Tiwary, S.Saha, G. Sahu, P.D.Chavan, S.K.Bhaumik*	Infusion of Fly Ash/MgO in CaO-based Sorbent for High-Temperature CO2 Capture: Precursor Selection and its Effect on Uptake Kinetics	<i>Materials Today Sustainability</i> , 2024, 27, 100933	7.1 Q1
D. Ratnam, S.K. Bhaumik*	Functionalized Borosilicate-Silica-Epoxy Nanocomposite Superhydrophobic Coating for Corrosion Inhibition under Harsh Environment	<i>Progress in Organic Coatings</i> 2024, 108,108264	6.5 Q1
S. Singh, P Singh, S.K. Bhaumik*	Magnetic-field induced flattening of evaporating ferro-nanofluid meniscus for enhanced cooling	<i>International Journal of Heat and Mass Transfer</i> , 2024, 218,124785	5.0 Q1
S. Singh, S.K. Bhaumik , P. Singh	Experimental investigation of thickness profile in an extended meniscus of thin film evaporation using reflectometry	<i>Expt. Thermal and Fluid Sc</i> , 2023, 4 October 2023, 111069 (SCI)	2.8 Q1
N. Jada, S.Rao, S.K.Bhaumik*	Novel Digestive Template Fabrication of Multihical \ Reactors	<i>Chemical Engg. Res. & Des</i> , 2023, 197, 334	4.1 Q1
N. Jada, S.Rao, S.K.Bhaumik*	Flow Transitions in Triple-Helical Microchannel involving Novel Parallel Flow Patterns	<i>Physics of Fluids</i> , 2022, 34, 123305	4.1 Q1
S. Singh, S.K. Bhaumik* , Li Dong and H. Vuthaluru	Enhanced Tar Removal in Syngas Cleaning through Integrated Steam Catalytic Tar Reforming and Adsorption using Biochar	<i>Fuel</i> , 2022,-331,125912	6.7 Q1
S. Tiwary, S.K.Bhaumik*	Theoretical Approaches in Hot CO ₂ Capture using Modified CaO Based Sorbent: Review	<i>Journal of CO₂ Utilization</i> , 2022, 57,101875	7.2 Q1
S. Singh, S.K. Bhaumik* , Li Dong, C Li and H. Vuthaluru	An Integrated Two-Step Process of Reforming and Adsorption using Biochar for Enhanced Tar Removal in Syngas Cleaning	<i>Fuel</i> , 2022,307, 121935-	6.7 Q1
V.K. Jha, K. Banerjee, S.K. Bhaumik*	Enhanced Thermal stability of Helical Finned Jacketed Stirred Tank	<i>Applied Thermal Engg</i> , 2021, 184, 116250	6.1 Q1
V.K. Jha, L. Sharma, S. Roy, K. D. P. Nigam and S.K. Bhaumik*	Comparative Assessment of Mixing in Compact Coiled Flow Inverters under Diffusion Free Laminar Flow Condition	<i>Chemical Engg Res. & Des.</i> , 2020,159, 455-467 (SCI)	3.7 Q1

V.K. Jha, S.K. Bhaumik*	Enhanced Cooling in Compact Helical Tube Cross-Flow Heat Exchanger through Gher Area Density and Flow Tortuosity.	<i>International Journal of Heat and Mass Transfer</i> , 2019, 150, 119270 (SCI)	5.0 Q1
S. Banerjee, P. Talpade, Agrawal, C. Banerjee and S.K. Bhaumik*	Effect of Alginate concentration in Wastewater Nutrient Removal using Alginate-Algae Immobilized System	<i>Biochemical Engg. Journal</i> 2019, 149, 107241. (SCI)	3.7 Q1
V.K. Jha, S.K. Bhaumik*	Enhanced Heat dissipation in Helical Finned Heat Sinks through Swirl effects in Natural Convection.	<i>International Journal of Heat and Mass Transfer</i> , 2019, 138 889–902 (SCI)	5.0 Q1
S.Das, S. K. Bhaumik*	Fabrication of Cylindrical Superhydrophobic Microchannels by Replicating Lotus Leaf Structures on Internal Walls	<i>Journal of Micromechanics & Microengineering</i> , 2018 28 (4), 045011(SCI)	2.28 Q2
C. Modak, S. K. Bhaumik*	Creep Flow Dynamics over Superhydrophobic Ball: Slip Effects and Drag Reduction	<i>Colloids and Interfaces A:</i> 2017, 529C, 998-1008. (SCI)	4.9 Q1
T. Saha, S. Kumar, S. K. Bhaumik*	Slip-Induced Flow in Thin Packed Column with Superhydrophobic	<i>Sensor and Actuators B</i> , 2017, 240, 468–476 (SCI)	8.0 Q1
T. Saha, S. Kumar, S. K. Bhaumik*	Minimizing Axial Dispersion in Narrow Packed Column with Superhydrophobic wall	<i>Korean Journal of Chemical Engg</i> , 2016, 33(12), 3337-3342 (SCIE)	2.9 Q2
S. K. Bhaumik, A. Kannan, S. DasGupta	Taylor-Aris Dispersion Induced by Axial Variation in Velocity Profile in Patterned Microchannels	<i>Chemical Engg Science</i> , 2015, 134, 251-259 (SCI)	4.1 Q1
S. K. Bhaumik* , R. Behera	CFD Optimization of Free convective cooling of Finned heat sinks: Effect of Fin Spacing	<i>Procedia Engg</i> 2015, 127, 155-161 (Scopus- Indexed)	—
S. K. Bhaumik, R. Roy, S. Chakraborty, S. DasGupta	Electrohydrodynamic Micropumping of Oil in water Emulsions	<i>Sensor and Actuators B</i> , 2014, 193, 288– 293 (SCI)	8.0 Q1
S. K. Bhaumik, S. Das, S. Chakraborty, S. DasGupta	Dielectrophoretic actuation of droplets using line electrode	<i>Microfluidics and Nanofluidics</i> , 2014, 16, 597-603 (SCIE)	3.1 Q2
S. K. Bhaumik, S. Chakraborty, S. DasGupta	Electrowetting of Evaporating Extended Meniscus	<i>Soft Matter</i> , 2012, 8, 11302–9. (SCI)	4.1 Q1
S. K. Bhaumik, M. Chakraborty, S. Ghosh, S. Chakraborty, S. DasGupta	Electric Field Enhanced Spreading of Partially Wetting Thin Liquid Films	<i>Langmuir</i> , 2011, 27 (21), Pages 12951–9. (SCI)	4.3 Q1

Book Chapter/News Journal

Authors	Chapter Tile	Book Title/Journal
V.K. Jha, and S.K. Bhaumik*	Review of Metal Recovery Processes in Liquid Extraction Systems	<i>Valorization of Resources from Urban Mined Materials</i> https://doi.org/10.1142/13971 December 2024
V.K. Jha, and S.K. Bhaumik*		<i>Next Generation Materials and Processing Technologies</i> , Springer 2021, pp 99-107.

S. Tiwary, S.K.Bhaumik*	Review On High-Temperature Co2 Capture Using Fly Ashinfused Cao-Based Sorbent	MGMI News Journal , 2024, Vol. 50, No. 2 /	-
S. Banerjee, P. Talpade, Agrawal, C. Banerjee and S.K. Bhaumik*	Immobilizing Microalgae to treat Waste water (News Article)	Current Science , 117,6, 25 th Sept 2019 (Web of Science)	1.17

➤ **International Conference (2020-23)**

Authors	Title	Conference
S. Singh, L. P.Singh, R. Dwivedi and S.K. Bhaumik	Measurement of evaporating thin film thickness of a microfluidic channel using reflectometer	<i>27th International Meeting Of Thermophysics 2022, 4–6 October 2022, Dalešice, Czech Republic, AIP Conf. Proc.</i> 2894, 020018 (2023) (Volume 2894, Issue 1)
S. Singh, L. Dong, H. Vathilaru, and S.K. Bhaumik*	Biochar Based Catalytic Tar Reforming for Syngas Cleaning: Insights into Volatile-Char Interactions	Accepted in 4 th CHEMECA, Virtual 2021 , IChemE, Melbourne, Australia (to be held 27-28 Sept 2021)
V.K. Jha, and S.K. Bhaumik*	Thermal Performance Enhancement in Cross-Flow Helical Tube Heat Exchanger by Modification of Tube Cross-Section,	Accepted in 4 th International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTTC 2021) IIT Madras
V.K. Jha, and S.K. Bhaumik*	Novel Helically Finned Heat Sink to achieve Lower Operating Temperature and Higher Fin Efficiency,	IHMTTC 2019 IIT Roorkee
V.K. Jha, and S.K. Bhaumik*	Enhanced Heat Transfer in Helical Tubes Condensers,	IHMTTC-2017 BITS Pillani Hyderabad Campus
C.Modak, and S.K. Bhaumik*	Enhanced Insulation properties in Superhydrophobic Microchannel,	IHMTTC-2017 BITS Pillani Hyderabad Campus
T. Saha and S. K. Bhaumik	Use of Superhydrophobic Column Wall for Drag and Dispersion Reduction in Liquid Chromatography,	Microfluidics, Liquid Handling and Lab on a Chip Bangalore, 26 -27 May, 2016
S. K. Bhaumik , R. Behera	CFD Optimization of Free convective cooling of Finned heat sinks: Effect of Fin Spacing’	Proceedings of International Conference, Computational Heat and Mass transfer NIT Warangal, India, pg. 7, Nov 30-Dec 2, 2015.
S.K. Bhaumik , S. Chakraborty, S. DasGupta,	Augmenting Capillary suction by Electrowetting for Cooling Applications	Proceedings of 16 International Heat Pipe Conference, Lyon, France , May 21-24, 2012, 243.
S. K. Bhaumik , P. Rao, Kavi G.L , J. Dhinagar	’Estimation of Charge efficiency and State of Charge during charging of VRLA batteries by Electrochemical Modeling”	The 22nd International Battery, Hybrid and Fuel Cell Electric Vehicle Symposium and Exposition Yokohama, Japan , 23 - 28 October 2006.
A. Kannan, S. K. Bhaumik ,	Hydrodynamic Dispersion in Patterned Microchannel	Microfluidics and Lab on Chip India, Mumbai Jan 22-23 2015.
H. Zhang, S. K. Bhaumik	CFD Validation of Radiant Syn-Gas Cooler (RSC) in Coal Gasification Unit	”, <i>GE Global Research Center</i> , Niskayuna, NY, USA, 2008.

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