

Publication of Papers in SCI/SCIE Journals in Career:

Authors	Title	Journal	IF
V. Jha, S.K.Bhaumik*	Enhanced Performance of Conical-Helical Coil Condenser under Laminar Condition: Effect of Secondary Flow on Heat Extraction	<i>Chemical Engg. Res. & Des</i> , 2026, 231, 620-636	4.0 Q2
N. Jada, S.K.Bhaumik , S.Rao, *	Helical parallel flow holds excess interfacial stresses	<i>Physics of Fluids</i> , 2025, 37, 123314 (2025)	4.3 Q1
S. Tiwary, S.K.Bhaumik*	Fly Ash-MgO Infused CaO-based Sorbent for High-Temperature CO ₂ Capture under Realistic Carbonation and Harsh Calcination Conditions	<i>Advanced Powder Technology</i> , 2025, 36(9), 105014	4.5 Q1
ShivShankar, S.K.Bhaumik*	Waste LD-Slag-Derived Sorbents for Calcium Looping-based Carbon Capture Technologies in Steel Industries	<i>Journal of Environmental Chemical Engineering</i> , 2025, 13(4), 117205	7.5 Q1
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	4.3 Q1
ShivShankar, P.D.Chavan, S.Saha, G. Sahu, S.K.Bhaumik*	Infusion of Fly Ash in Alkali salt promoted MgO-based Sorbent for CO ₂ Capture at Elevated Temperatures	<i>Advanced Powder Technology</i> , 2024, 35(12),104712	4.5 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 CO ₂ Capture: Precursor Selection and its Effect on Uptake Kinetics	<i>Materials Today Sustainability</i> , 2024, 27, 100933	9.4 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	7.9 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	6.6 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)	3.6 Q1
N. Jada, S.Rao, S.K.Bhaumik*	Novel Digestive Template Fabrication of Multihical \Reactors	<i>Chemical Engg. Res. & Des</i> , 2023, 197, 334	4.0 Q2
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	4.3 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	7.8 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	8.4 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	<i>Fuel</i> , 2022,307, 121935-	7.8 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	7.5 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)	4.0 Q2
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)	6.6 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)	3.8 Q2
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)	6.6 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)	2.4 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)	5.4 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)	8.3 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)	3.0 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)	5.1 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)	8.3 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 Title	Book Title/Journal
S Singh, A. Kumar, S. K, Bhaumik , S. Narayanan, and P. K, Singh	Effect of Surface Acoustic Wave (SAW) on the Thickness Profile of an Evaporating Thin Film Meniscus Using Reflectometry	<i>Proceedings of Fluid Mechanics and Fluid Power (FMFP) 2023, Vol. 3 Springer Nature</i>
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, Springer 2021</i> , pp 99-107.
S. Tiwary, S.K.Bhaumik*	Review On High-Temperature Co2 Capture Using Fly Ashinfused Cao-Based Sorbent	<i>MGMI News Journal</i> , 2024, Vol. 50, No. 2 / -
S. Banerjee, P. Talpade, Agrawal, C. Banerjee and S.K. Bhaumik*	Immobilizing Microalgae to treat Waste water (News Article)	<i>Current Science</i> , 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. 2894, 020018 (2023) (Volume 2894, Issue 1</i>
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 <i>CHEMECA, Virtual 2021</i> , 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 <i>International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTc 2021)</i> IIT Madras
V.K. Jha, and S.K. Bhaumik*	Novel Helically Finned Heat Sink to achieve Lower Operating Temperature and Higher Fin Efficiency,	<i>IHMTc 2019</i> IIT Roorkee
V.K. Jha, and S.K. Bhaumik*	Enhanced Heat Transfer in Helical Tubes Condensers,	<i>IHMTc-2017</i> BITS Pillani Hyderabad Campus
C.Modak, and S.K. Bhaumik*	Enhanced Insulation properties in Superhydrophobic Microchannel,	<i>IHMTc-2017</i> BITS Pillani Hyderabad Campus
T. Saha and S. K. Bhaumik	Use of Superhydrophobic Column Wall for Drag and Dispersion Reduction in Liquid Chromatography,	<i>Microfluidics, Liquid Handling and Lab on a Chip</i> Bangalore, 26 -27 May, 2016
S. K. Bhaumik , R. Behera	CFD Optimization of Free convective cooling of Finned heat sinks: Effect of Fin Spacing'	<i>Proceedings of International Conference, Computational Heat and Mass transfer</i> NIT Warangal,

India, pg. 7, Nov 30-Dec 2, 2015.

S.K. Bhaumik, S.
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Heat Pipe Conference, Lyon,
France, May 21-24, 2012, 243.***

S. K. Bhaumik, P. Rao, Kavi
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VRLA batteries by Electrochemical
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