

List of Journal Publications:

1. **Paul, A.**, Sinha, M., Samanta, D., & Dhar, P. (2026). Marangoni and Stefan advection dynamics during pendant droplet evaporation. *International Journal of Heat and Mass Transfer*, 256, 128061.
2. Murugesan, N., **Paul, A.**, Saha, S., Mohammed, A., Nivedita, E., Shanker, G., & Das, S. K. (2026). Geometry-assisted segregation of multiple blood plasma analytes in paper-based microfluidic devices. *Microchemical Journal*, 226, 118348.
3. Bhaskaran, A. M.*, **Paul, A.***, Roy, A., Samanta, D., & Dhar, P. (2025). Hydrodynamics of Liquid Mushrooms. *Langmuir*, 41(22), 14382-14396 (*joint first authors).
4. **Paul, A.**, Dhar, P., & Pal, U. (2024). Ambient-gas forced convection dictated evaporation kinetics of generic sessile droplets. *International Communications in Heat and Mass Transfer*, 159, 108072.
5. **Paul, A.**, & Dhar, P. (2024). Predicting sessile droplet evaporation kinetics via cascaded deep networks and tree-based machine learning approach. *Physics of Fluids*, 36(9).
6. **Paul, A.**, Mondal, S., & Dhar, P. (2024). Droplet evaporation on curved surfaces: transients of internal and external transport phenomena. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 480(2287).
7. **Paul, A.**, Roy, A., & Dhar, P. (2024). External Stefan and internal Marangoni thermo-fluid dynamics for evaporating capillary bridges. *Langmuir*, 40(10), 5255-5269.
8. **Paul, A.**, & Dhar, P. (2023). Transients of Marangoni and Stefan advection dynamics during generic sessile droplet evaporation. *Physics of Fluids*, 35(10).
9. **Paul, A.**, Dash, R. K., & Dhar, P. (2023). Phenomenology and kinetics of sessile droplet evaporation on convex contours. *International Journal of Thermal Sciences*, 187, 108194.
10. **Paul, A.**, Samanta, D., & Dhar, P. (2023). Evaporation kinetics of wettability-moderated capillary bridges and squeezed droplets. *Chemical Engineering Science*, 265, 118267.
11. **Paul, A.**, & Dhar, P. (2022). Interactive evaporation of neighboring pendant and sessile droplet pair. *Journal of Heat Transfer*, 144(12), 121603.
12. **Paul, A.**, & Dhar, P. (2021). Evaporation kinetics of sessile droplets morphed by substrate curvature. *Physics of Fluids*, 33(12).
13. **Paul, A.**, Khurana, G., & Dhar, P. (2021). Substrate concavity influenced evaporation mechanisms of sessile droplets. *Physics of Fluids*, 33(8).
14. **Paul, A.**, Raushan, P. K., Singh, S. K., & Debnath, K. (2020). Organized structure of turbulence in wave-current combined flow over rough surface using spatio-temporal averaging approach. *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, 42(11), 606.
15. Raushan, P. K., **Paul, A.**, Singh, S. K., & Debnath, K. (2020). Spatially-averaged turbulent flow characteristics over ribbed surface in presence of unidirectional wave over steady current. *Applied Ocean Research*, 100, 102154.

List of Conference Publications:

1. **Paul, A.**, Roy, A., & Dhar, P. (2023, December). Substrate Wettability Influenced Evaporative Thermo-Fluid Dynamics of Capillary Bridges. In *Conference on Fluid Mechanics and Fluid Power* (pp. 45-58). Singapore: Springer Nature Singapore.
2. Roy, A., **Paul, A.**, Kumar, V., & Dhar, P. (2023, December). Two-Dimensional Pulsatile Electro-Magneto-Hydrodynamic Flow in a Micropipe with Electroosmotic Effects. In *Conference on Fluid Mechanics and Fluid Power* (pp. 171-185). Singapore: Springer Nature Singapore.
3. **Paul, A.**, & Dhar, P. (2022, December). Evolution of Marangoni Thermo-Hydrodynamics Within Evaporating Sessile Droplets. In *Conference on Fluid Mechanics and Fluid Power* (pp. 147-159). Singapore: Springer Nature Singapore.