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Recent Papers

M Ganesh, S Dabiri. 2022. Numerical study of bubble induced mixing in stratified fluids. Chemical Engineering Science 264, 118135.

T Kennelly, S Dabiri. 2022. Effect of Rayleigh and Prandtl Numbers upon Natural Convection and Flow Field in a Differentially Heated Cavity. Bulletin of the American Physical Society.

A Barrio Zhang, R More, S Dabiri, A Ardekani. 2022. Monitoring heterogeneity and diffusive processes in therapeutic samples using schlieren. Bulletin of the American Physical Society.

A Lafzi, S Dabiri. 2022. A numerical lift force analysis on the inertial migration of a deformable droplet in steady and oscillatory microchannel flows. Lab on a Chip 22 (17), 3245-3257.

RV More, A Barrio-Zhang, A Ahmadzadegan, S Dabiri, AM Ardekani. 2022. Monitoring heterogeneity in therapeutic samples using Schlieren. International Journal of Pharmaceutics 609, 121096.

Y Zhang, Z Dou, JC Veilleux, GH Shi, DS Collins, PP Vlachos, S Dabiri, AM Ardekani. 2021. Modeling cavitation bubble dynamics in an autoinjector and its implications on drug molecules. International Journal of Pharmaceutics 608, 121062.

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A Lafzi, S Dabiri. 2021. Dynamics of droplet migration in oscillatory and pulsating microchannel flows and prediction and uncertainty quantification of its lateral equilibrium position using multifidelity Gaussian processes. Physics of Fluids 33 (6), 062010.

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P Bhuvankar, S Dabiri. 2020. Simulation of flow boiling in micro-channels: Effects of inlet flow rate and hot-spots. International Journal of Heat and Fluid Flow 85, 108616.

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M Ganesh, S Kim, S Dabiri. 2020. Induced mixing in stratified fluids by rising bubbles in a thin gap. Physical Review Fluids 5 (4), 043601.

M Ganesh, S Dabiri. 2020. Bubble induced destratification in unconfined fluids. APS Division of Fluid Dynamics Meeting Abstracts, J10. 015.

P Mohan, S Dabiri. 2020. Numerical Simulation of Cavitation Bubble Dynamics in a Rankine Vortex. APS Division of Fluid Dynamics Meeting Abstracts, F02. 014.