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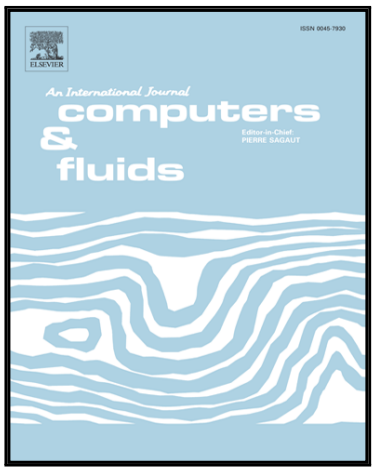

An Immersed boundary-lattice Boltzmann method to simulate chaotic micromixers with baffles

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Highlights

- Numerical simulations are performed on mixing in baffled micromixers.
- IB–LBM with velocity and mass flux corrections can effectively show the baffles effects.
- The mixing performance is evaluated by the mixing efficiency and the performance index.
- Regardless of the baffle shape, the mixing efficiency is enhanced by using baffles.
- As the distance between baffles decreases, the performance is more enhanced.

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