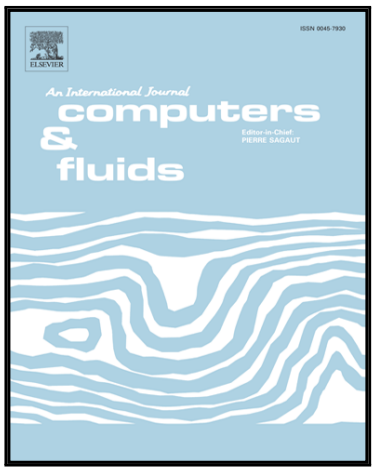

Direct Numerical Simulation of Mass Transfer in Bubbly Flows

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Highlights

- extensive parameter study of species transfer from single rising bubbles
- deduction of improved Sherwood correlation for interfacial species transfer
- adaptive mesh refinement, load balancing and multi-criterion refinement
- improved algebraic Volume-Of-Fluid method using iso-surface reconstruction
- flux-based window technique/moving reference frame