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Residence time distribution in an internal loop airlift reactor: CFD simulation versus digital image processing measurement

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Highlights

- CFD simulation was applied for evaluating the liquid phase residence time distribution in a rectangular ALR.
- RTD predicted using CFD simulation was compared to experimental data which gained using DIP technique.
- Good agreement was observed between the simulation predictions and the experimental data.
- Also, 3D distribution of main hydrodynamic parameters in a laboratory scale ALR was studied by CFD.

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