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Scale-up of Batch Rotor-Stator Mixers. Part 2 – Mixing and

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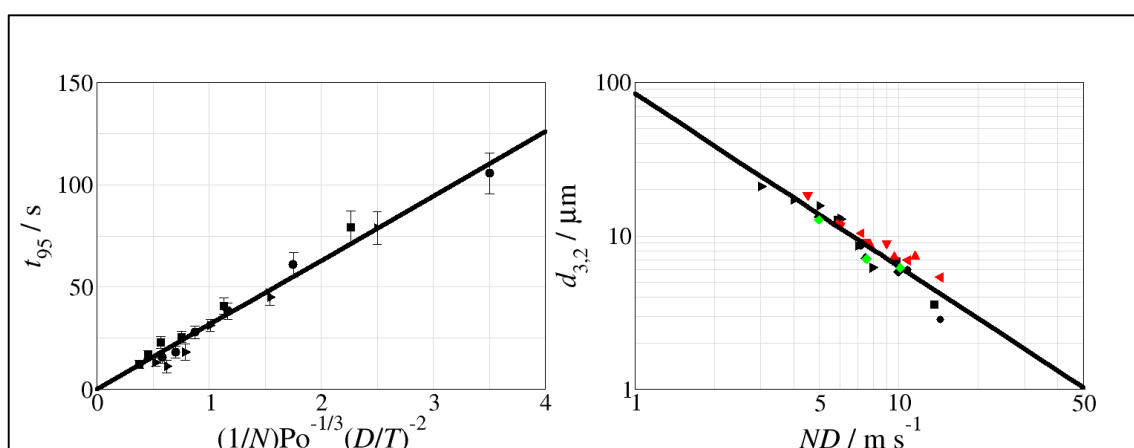
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Graphical abstract



Highlights

- Batch rotor-stator mixing time can be given by $t_{95}N = 31.5Po^{-1/3}(D/T)^{-2}$
- Removing the screens reduces the mixing time
- The flow patterns created by rotor-stator mixers are mainly radial, but baffles in the vessel reduce any swirl flow
- The onset of surface aeration for the rotor-stator is given by $Fr_S = 18.73D^{0.06}$
- The equilibrium drop size can be given by $d_{3,2} = 84.3(ND)^{-1.125}$ for rotor-stator systems with or without screens

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