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Title: New Correlations for Slip Velocity and Characteristic Velocity in a Rotary Liquid-Liquid Extraction Column

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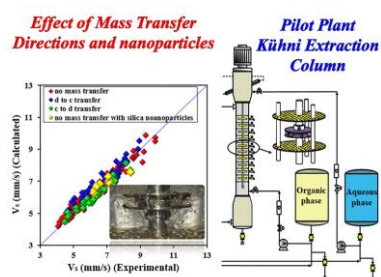
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Graphical abstract



Highlights

- Paper described the impact of different parameters on slip velocities in a Kühni column.
- Slip velocity decreased in the experimental conditions with the presence of nanoparticles.
- Slip velocity was found to depend largely on the speed of agitation.
- Slip velocity in the case of dispersed to continuous mass transfer were higher than other.
- Empirical correlations are proposed for prediction of slip and characteristic velocities.

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