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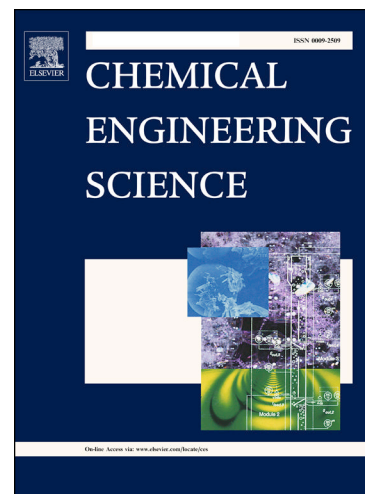
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# **Development and Validation of an Enhanced Filtered Drag Model for Simulating Gas-Solid Fluidization of Geldart A Particles in All Flow Regimes**

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## **Highlights**

- Drag models derived from different methods were tested using coarse-grid simulations.
  - An enhanced filtered drag model is introduced and validated.
- Performance of eight drag models in four fluidization regimes is evaluated.
- Revised filtered drag model offers significantly improved hydrodynamics predictions.
- Enhanced filtered drag model correctly predicts fluidization behavior in all regimes.

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