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# Thermo-Hydrodynamic Design of Fluidized Bed Combustors

## Estimating Metal Wastage

- Shows development of simplified models and describes key inputs and outputs
- Discusses scaling that relates small and/or cold experiments to data from larger/hot units
- Illustrates relationships between dependent variables, such as porosity, bubble size, and particle velocity
- Relates design guidelines to field data in a meaningful manner

Thermo-Hydrodynamic Design of Fluidized Bed Combustors: Estimating Metal Wastage is a unique volume that finds that the most sensitive parameters affecting metal wastage are superficial fluidizing velocity, particle diameter, and particle sphericity. Gross consistencies between disparate data sources using different techniques were found when the erosion rates are compared on the same basis using the concept of renormalization. The simplified mechanistic models and correlations, when validated, can be used to renormalize any experimental data so they can be compared on a consistent basis using a master equation.

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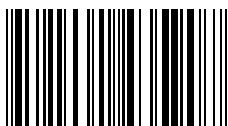
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