DISCUSSION

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Professor Krier and Mr. Jones have made a contribution in extending current pressure-drop-through-packed-bed correlations to the realm of higher Reynolds numbers. Reliable, new data in this field are always welcome, and improved correlations with empirical constants which fit the data a little better than the old ones will be useful to the design engineer.

The Ergun equation for predicting pressure drop through packed-bed gas absorbers is widely used by chemical engineers. Unfortunately, in this low-Reynold's-number-chemical-engineering application, the packing does not consist of smooth, round glass spheres, and one of the most difficult variables for the designer to conjur is the "effective diameter" of the particles which, typically, consist of saddles, or oddly punched-out meshes. Empirical parameters whch are particle-specific are frequently used in conjunction with the Ergun equation.

Higher-Reynold's number-flow packed beds are of interest primarily to chemical reactor engineers. Here the flow is through particles of catalysts. Typically, these are irregular particles; many have very rough surfaces.

It is unfortunate that the area of flow through packed beds has, for decades, been considered intractable by theoreticians, and abandoned by experimentalists. Perhaps this paper will help revive interest in this field.

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