عنوان مقاله:

A neural network for predicting collection efficiency using genetic algorithm in venturi scrubbers

محل انتشار:

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خلاصه مقاله:

In this study, for the first time attempt has been made to design a neural network architecture using genetic algorithm for predicting collection efficiency in venturi scrubbers. A GA- ANN model is created using experimental data including particle diameter, throat gas velocity, liquid to gas flow rate ratio, throat hydraulic diameter and pressure drop across venturi scrubber. A good agreement has been seen between the experimental data and the model results. Comparison of the results of GA- ANNs with the trial and error method indicates that GA approach is more efficient. The effect of operating parameters such as liquid to gas flow rate ratio, throat gas velocity and particle diameter on the collection efficiency are also investigated here.

کلمات کلیدی:

Venturi scrubber, Artificial neural networks, Genetic algorithms, Collection efficiency

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