Abstract

The ability of some solids to remove colour from solutions containing dyes has been known for over a century. Activated carbon has been quite successful for removal of impurities from exhaust gas and waste water streams. The highly porous nature of the carbon provides a large surface area for contaminants to get deposited. Artificial neural network is a black box modeling tool & is applied for several chemical engineering operations. In the present work ANN models 1,2 & 3 having different topologies have been developed for correlating input parameters like name of adsorbate, name of adsorbent, initial concentration of solute in aqueous solution & quantity of adsorbent with output parameters such as % adsorption & equilibrium concentration of solute in adsorbent. The novel feature of present work is selection of suitable ANN model based on topology.

References

Comparative Study of Topology of ANN Models for Adsorption of Colouring Agents from Aqueous Solutions using Adsorbents Synthesized from Agricultural Waste Material

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