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Bioregeneration of spent activated carbon: Review of key factors and recent mathematical models of kinetics

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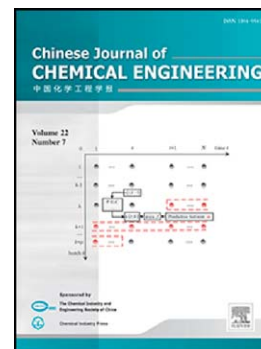
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1 Review

2 **Bioregeneration of spent activated carbon: Review of key factors and**  
3 **recent mathematical models of kinetics**

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27 **ABSTRACT**

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29 The disposal of spent activated carbon (AC) will inevitably create secondary pollution. In  
30 overcoming this problem, the spent AC can be regenerated by means of biological approach.

31 Bioregeneration is the phenomenon in which through the action of microorganisms, the

32 adsorbed pollutants on the surface of the AC will be biodegraded and this enables further

33 adsorption of pollutants to occur with time elapse. This review provides the challenges and

34 perspectives for effective bioregeneration to occur in biological activated carbon (BAC)

35 column. Owing to very few reported works on the bioregeneration rate in BAC column,

36 emphasis is put forward on the recently developed models of bioregeneration kinetic in batch

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