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## **APPLICATIONS OF ARTIFICIAL NEURAL NETWORKS IN ENVIRONMENTAL CATALYSIS**

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### **Abstract**

Artificial neural networks (ANN) represent one of the fastest developing fields of artificial intelligence due to their ability to resemble (to a certain extent) the human problem solving characteristic which is difficult to simulate using the logical, analytical techniques of expert system and standard software technologies. As catalysis plays a key role in green chemistry, the applications of ANN in this area are of great interest since crucial problems such as catalyst formulation, optimal conditions for catalytic systems exploitation and other specific problems can be rapidly and efficiently solved. The aim of this review is to evaluate the state-of-the art of ANN in catalysis and to point out further developments in this field.

*Keywords:* artificial neural networks, green chemistry, catalytic system, pollution prevention

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