

碳纳米管电极电催化氧化降解染料溶液的研究

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摘要 研究了经高温焙烧结合高速球磨处理后的碳纳米管的结构及形貌, 测定了其相应的比表面积. 对碳纳米管冷压成形制得的电催化电极的表面形貌进行了分析. 分别以活性炭、石墨、碳纳米管作为电催化阳极, 处理模拟染料废水活性艳红X-3B溶液, 实验结果表明: 碳纳米管电极电催化稳定性较好, 经电催化氧化反应20min后, X-3B染料的降解率达到96.55%, 其电催化降解效率明显优于活性炭和石墨电极.

关键词 [碳纳米管](#) [电化学技术](#) [有机废水](#)

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Application of Carbon Nanotubes in Organic Wastewater Treatment of Electrochemical Method

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Abstract The structure and morphology of carbon nanotubes modified by high-temperature calcination and milling with high speed were studied. The surface area of carbon nanotubes was measured. The morphology of the carbon nanotubes electrocatalytic electrodes pressed at noal temperature was observed. Active red X-3B simulated wastewater was disposed by active carbon, graphite and carbon nanotubes electrocatalytic electrodes, respectively. The experimental results show that the stability of carbon nanotubes electrodes is good and the dye degradation of X-3B can reach 96.55%. The efficiency of carbon nanotubes electrodes is obviously better than that of active carbon and graphite electrodes.

Key words [carbon nanotubes](#) [electrochemical method](#) [organic wastewater](#)

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