A New Microbial Fuel Cell for Simultaneous Treatment of Dye Wastewater and Electricity Generation

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Decolorization of dye wastewater is a major concern due to its immense color and toxicity. Even though there are many methods available for the decolorization of the dye wastewater, most of them are far from satisfactory. Recently, microbial fuel cell (MFC) has obtained great attention in the field of wastewater treatment. The large scale applications of MFCs have been severely hindered by several problems such as the high internal resistance, low power output, expensive materials, and complicated configuration. To address all these issues, we have designed a new microbial fuel cell without using any expensive materials like pronton exchange membrane and platinum catalyst for simultaneous treatment of dye wastewater and electricity generation. It produced a high power density which is several fold higher than our previous report (New Biotechnol; 29, 2011, 32–37). This indicates that this new MFC system is very efficient for practical applications.