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Riboflavin-mediated extracellular electron transfer process involving

Pachysolen tannophilus

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Abstract

Microbes can generate electricity in microbial fuel cells and transform contaminants

in nature, utilizing extracellular electron transfer (EET). Fungi exist widely in

environment but few studies have concerned an associated EET mechanism and so

their application is limited. In this study electrochemical techniques were employed to

study the extracellular reduction capability of fungi using a representative model viz.

Pachysolen tannophilus; a solid electrode and soluble Cr(VI) were used as

extracellular electron acceptors. Despite a thick cell wall, the yeast was proved to be

electrochemically active and an obvious redox peak was observed at -0.41 V in

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