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COMPARISON OF BIOSORPTION EFFICIENCY OF FREE AND IMMOBILIZED FUNGAL CONSORTIUM FOR Cd (II) REMOVAL FROM AQUEOUS SOLUTION UNDER TWO AERATION SYSTEMS

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Abstract

Cd (II) removal efficiency of free and immobilized fungal consortia of 48-h-old *Mucor sp.* HI33 + 72-h-old *Gliocladium viride* AI003 + 72-h-old *Aspergillus niger* AH09 from aqueous solutions were tested under different aeration systems. Cd (II) removal by free cells under air bubble system aeration was higher (99.91%) than under shaker system aeration. Cd (II) removal by immobilized fungal consortia was higher (83.18 %) under shaker system aeration and lower in air bubble system aeration respectively. The Cd (II) removal in air bubble aeration system was found much higher than in the shaker system aeration.

Key words: aeration system, air flow, biosorption, Cd (II), shaker system

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