Biosorption of Binary Mixtures of Copper and Cobalt by *Penicillium brevicompactum*

Kolishka Tsekova[a,*], Maria Ianis[a], Vera Dencheva[a], and Sonya Ganeva[b]

[a] Department of Microbial Ecology, Institute of Microbiology, Bulgarian Academy of Sciences, Sofia, Bulgaria. E-mail: kolishka@yahoo.com
[b] Faculty of Chemistry, Sofia University, Sofia, Bulgaria

* Author for correspondence and reprint requests

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This work reports on a study of the biosorption of copper and cobalt, both singly and in combination (in equimolar concentrations), by the resting cells of *Penicillium brevicompactum*. Equilibrium batch sorption studies were carried out at 30 °C and pH 5.0 for a contact time of 1 hour to guarantee that equilibrium was reached. The equilibrium data were analyzed using the Langmuir and Freundlich isotherms. The adsorption of binary mixtures of heavy metal solutions on the fungal biomass was found to be of competitive type where the adsorption capacity for any single metal decreased in the presence of the other. The cobalt ions showed a higher affinity for *Penicillium brevicompactum* than the copper ions.

Key words: Heavy Metals, Competitive Sorption, *Penicillium brevicompactum*