

Influence of salts of single and double charged metal cations on the sorption of H^+ and OH^- ions on the mycelium of basidiomycetes

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Keywords: Basidiomycetes, potentiometric titration, point of zero charge.

Abstract

The paper presents the study of colloidal properties of mycelium of basidiomycetes.

The aim is to study the adsorption on the mycelia of basidiomycetes *Abortiporus biennis* and *Poliporus ciliatus*, as well as determining the point of zero charge of the mycelium, and studying the effect of electrolytes on its value. The studies were conducted by potentiometric titration. Point of zero charge mycelium *Polyporus ciliatus* is 5.0, and the point of zero charge of mycelium *Abortiporus biennis* is 6.5. It was established that specifically adsorbed on the mycelium cations of simple electrolytes evidenced shift point of zero charge in an acidic electrolyte solution in the region. With increasing either concentration or a cationic charge the effect on the point of zero charge increases. This shows the selective sorption on the surface of the mycelium. Mycelium and basidiomycetes *Abortiporus biennis* and *Poliporus ciliatus* can be used both as a carrier, and as a sorbent of metal cations.