COMPARISON OF SORPTION ABILITY OF ALIVE AND DRIED YEASTS S. CEREVISIAE FOR PURIFICATION OF WASTE WATERS UNDER MECHANICAL STIRRING

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Nowadays the problems of the environment's pollution attention of research. Purification of waste waters is a very important problem. New innovative methods are necessary, because modern methods are very expensive. Ion's biosorption of heavy metals by yeasts S. CEREVISIAE is perspective field of technology. Yeasts S. CEREVISIAE are not toxic and cheap biomaterials.

During our research we investigated sorption's ability of new dry biosorbent, controlled by magnets on the base of dry yeasts. These yeasts Magnetic characteristics were given to these yeasts, by adding nonmagnetic to them. The same investigation was held with the alive yeasts. Received data from two researches were compared. In our research Cu^{2+} plays a role of an ion of heavy metals, which we intensified by mechanical blending in order to study special features of biosorption. In both cases of the adsorptions was taking place. Maximum degree of purifying we achieved when the process was holding during near 50 minutes. But when we carried out the same investigations by using dried controlled by magnets we were observing the same results on the fifth minute of mechanical blending.

We solve problems connected especially with providing imperative conditions of conservation for these microorganisms by using dried biomaterial. In this case we also solve problems linked with removal of used up biosorbent from ‘‘working" environment by using high gradient magnetic separator.

References:

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