

STUDY OF METAL ION INTERFERENCE TOWARDS BIVALENT ION BIOSORPTION BY SOME SACCHAROMYCES CEREVISIAE

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ABSTRACT

This study aims to 1) analyze whether or not the influence of metal ions on the biosorption efficiency of bivalent metal ions by *S. cerevisiae* yeast, and 2) analyze the effect of metal ions on the efficiency of biosorption of metal ions bivalent by *S. cerevisiae* yeast.

This research was started by growing yeast on YPD solid media, which was continued on liquid media. Analysis of yeast growth on media containing bivalent metal ions aims to determine the ability of yeast to grow in these media. Then the interference of other metal ions against bivalent metal ions is carried out by mixing metal ions with certain concentrations under controlled conditions. The residual bivalent metal ion content contained in growth media was measured using an atomic absorption spectrophotometer.

The results showed that 1) Zn^{2+} + metal ions were able to reduce the biosorption efficiency of Pb^{2+} + metal ions by *S. cerevisiae* yeast cells until they reached a maximum decrease of 45.67% at 25°C, and 2) Zn^{2+} + metal ions were able to reduce the biosorption efficiency of Pb^{2+} + metal ions by cells *S. cerevisiae* yeast reached 18.27% in growth media with media pH 5.

Kata Kunci: *metal bivalen, biosorpsi,*