

Effect of Quinine Sulphate on *Saccharomyces cerevisiae* Yeast Strains. Preliminary Note.

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SUMMARY. While the effects of *Cinchona spp.* alkaloids on certain microorganisms have been well studied, their activity on yeasts has received little attention. This could be interesting, as the use of natural products offers one other possibility of selecting new yeast strains that can have industrial use.

RESUMEN. "Efecto del Sulfato de Quinina sobre Cepas de la Levadura *Saccharomyces cerevisiae*. Nota Preliminar". Mientras que los efectos de los alcaloides de *Cinchona spp.* sobre ciertos organismos han sido bien estudiados, no hay conocimiento de su actividad sobre las levaduras. Esto puede ser interesante, ya que la acción de los productos naturales representa una posibilidad de seleccionar cepas con nuevas características de valor industrial.

INTRODUCTION

The biological action of alkaloids has been extensively studied in terms of their cellular mechanisms of action. Of the alkaloids present in *Cinchona spp.* bark, quinine has been shown to have a wide spectrum of uses, including anti-malarial, antitetic, analgesic as well as other properties ¹⁻⁷. Quinine and its synthetic derivative, chloroquine, have been shown to form molecular complexes with DNA, and studies on the action of similar alkaloids on the growth cycle of *Plasmodium knowlesi* in parasitized erythrocytes has demonstrated that their primary inhibitory action is directed at the mechanisms of DNA replication, rather than at RNA replication or protein synthesis ^{1,4,5}.

In this paper was report the action of quinine sulphate on three strains of *S. cerevisiae* in terms of cell growth.

KEY WORDS: Metabolism; Quinine; Yeasts.

PALABRAS CLAVE: Metabolismo; Quinina; Levaduras.

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