

POTENTIOMETRIC ANALYSIS OF THE INTERACTION FROM CARBOCYSTEINE WITH CONCAVALIN A AND DIFFERENT SUCROSE CONCENTRATIONS

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Carbocysteine is a mucoactive drug currently used as a mucolytic agent in adjunctive therapy of respiratory tract infections. In this work the electrochemical potential from Concanavalin A (Con A), a *Canavalia ensiformis* seed lectin of glucose/mannose recognition, was obtained to evaluate the interaction of this protein with carbocysteine and sucrose. The system contained a platinum electrode (work electrode) and an Ag/AgCl electrode (reference electrode), Con A immobilized in Nafion beads (2 g, Nafion[®] NR 50) and different concentrations of sucrose (20-400mM) in saline solutions containing carbocysteine. The results revealed reduction of the electrochemical potential with the increase of sucrose (180-74 mV); a highly significant variation was detected with the addition of 500 mg carbocysteine (220 mV) and 400 mM sucrose. The potential changes indicated the interaction between carbocysteine and Con A; sucrose increased the interaction carbocysteine/ protein.

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