

This thesis is part of a long-standing research in the field of diagnosis of the stomach diseases, which is based on the gastric enzyme pepsin A mapping. It was found that a phosphorylation in the primary structure of this enzyme may serve as a marker of incipient stage of carcinogenesis. This thesis is focused on the immobilization of protease V8 isolated from microorganism *Stafylococcus aureus* to magnetic agarose beads.

Protease V8 is a promising candidate for producing peptide maps of pepsin A. The influence of pH, temperature and reaction time on the enzyme to activity has been studied and the optimal conditions for hydrolytic catalysis of formation of peptide fragments of pepsin A.