

IMMOBILIZATION OF PEROXIDASE FROM *Campomanesia* sp. ONTO POLYANILINE SUPPORTS

Menezes, M. L.¹, Souza, A. A.¹, Caramori, S. S.¹, Fernandes, K. F.²

¹UnUCET, Universidade Estadual de Goiás, Campus Dr. Henrique Santillo, Rodovia BR 153, Km 98, CEP:75001-970, Anápolis, Brasil.

²Laboratório de Química de Proteínas, ICB 2, Universidade Federal de Goiás, Cx. Postal 131, CEP: 74001-970, Goiânia, Goiás, Brasil.

The plants from Cerrado biome are representing a great font of biotechnological compounds, such as their enzymes that are interesting for food and pharmaceutical industries. About the peroxidases (EC 1.11.1.7), this type is distributed in many organisms, principally in the plant kingdom. Peroxidases are being applying in the juice/ pulp fruit sterilization, and largely studied for biosensors applications. In this work, peroxidase from the fruit of *Campomanesia* sp. was immobilized in three supports: polyaniline-glutaraldehyde powder (PANIG), polyvinyl alcohol-glutaraldehyde-polyaniline-glutaraldehyde (PVAGPANIG) and polysiloxane-polyaniline-glutaraldehyde. The best results were found when peroxidase was immobilized in PANIG (0.4 U mg), using pH 6.5 and 60 min for complete the immobilization process. Operational stability was obtained better for PANIG-peroxidase system, which could be used repeatedly and continuously for four times. PVAG-PANIG-peroxidase, with the second optimal conditions, presented an advantage of remove it immediately from the bulk of reaction.

Key words: immobilization, peroxidase, *Campomanesia* sp., Cerrado.