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Letter to the Editor

SOURCES OF PEROXIDASES TO BIOTRANSFORMATION OF PLANT EXTRACTS

Dear Sir;

In the last decade, biotransformations, has become one of the most promising areas of the scientific research, due to its application in obtaining raw materials in industrial processes and in such important sectors as those devoted to pharmaceuticals, chemicals, food and agriculture.

These reactions can be carried out by microorganisms or through enzymatic reactions, using oxidative enzymes such as mono or di-oxygenases or peroxidases. Peroxidases are quite useful enzymes to carry out biotransformation reactions; since they are very abundant in nature and highly enantio and regioselective.

In our laboratory, a study was conducted with the aim of selecting a source of enzyme to be used in the biotransformation of plant extracts. In selecting the potential sources, their availability and the economic feasibility of their use in the future were taken into account. The sources examined included the fruit skin of *Ananas sativus* (Lindl) Schult (white pineapple), the fruit of *Roystonea regia* (Kunth) O. F. Cook (palm kernel), the fruit skin and cotyledon of *Mangifera indica* (mango), the fruit of *Raphanus sativus* L (radish red) and the seeds of *Solanum lycopersicum* L (tomato).

Of the source studied, the palm kernel showed the highest levels of peroxidase specific activity. However, these are preliminary results. The staff will continue to exploring other possible sources of peroxisases aiming at making a correct selection.

Sincerely yours,

Yailen Arias*, Antonio Carvallo, Oriela Pino*, Belkis Peteira*, Alberdan Silva****

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