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Reviews

ARE INTERFACIAL BIOCATALYSTS IMPORTANT TOOLS FOR NONPOLLUTING TECHNOLOGIES? 1. PRODUCTION, STRUCTURAL ASPECTS AND MECHANISM OF LIPASES

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Abstract

Lipases are omnipresent enzymes that catalyze the breakdown of fats and oils with subsequent release of free fatty acids, diacylglycerols, monoacylglycerols and glycerol. Moreover, lipases are also able to catalyze various reactions such as esterification, transesterification and aminolysis taking place in organic solvents. Consequently, lipases are nowadays extensively studied due to their potential industrial applications in different fields such as resolution of racemic mixtures, synthesis of new surfactants and pharmaceuticals, flavour production in the dairy industry, oils and fats bioconversion as well as detergency applications. The present review will survey different applications that have been developed in relation to the principles of the Green Chemistry.

Keywords: lipases, structure, mechanism, kinetics

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