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Free and immobilized enzymes for biofuels, biosensing and bioremediation

Guest Editor:

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Message from the Guest Editor

As new nanostructured materials are discovered new immobilized enzymatic biocatalysts are prepared by means of physical adsorption, covalent binding, entrapment or encapsulation. Nonetheless, there are some cases where enzymes must be kept in solution in the “free form” as, for example, when substrates are in the solid phase. Both free and immobilized enzymes can be used for several applications like organic synthesis particularly for the pharmaceutical industry. The present Special Issue is dedicated to other, likely less investigated, but very important applications of free and immobilized enzymes. In particular, the issue will focus on the immobilization of enzymes on new inorganic (mesoporous silica, metal organic frameworks, etc) and polymeric materials, and on their use for biofuels (biodiesel and bioethanol) production, bioremediation (oxidation of polluting compounds, like dies, phenols, etc.), and for the realization of enzymatic biosensors and biofuel cells.

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Message from the Editor-in-Chief

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