



Immobilized Biocatalysts

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Message from the Guest Editor

Immobilized biocatalysts are—apart from application in the chemical/pharmaceutical industry—used as biosensors, in medical diagnoses, genomics and genome sequencing (next generation sequencing), for protein microarrays (tracking interactions and activities of proteins, drug screening, etc.), or enzyme biocomputing.

Traditional immobilization techniques comprise adsorption, covalent binding, crosslinking, and entrapment. Moreover, immobilization and chemical modification may be coupled with site-directed mutagenesis, and nanobiocatalysts are generated by biological assembly methods. For covalent, site-specific immobilization several chemical and enzymatic approaches have proven. A variety of surface analysis technologies exist to control enzyme immobilization.

