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## BIOPOLYMERS AND BIOPLASTICS

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## Enzyme-incorporated metal-organic frameworks for biocatalysis

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Re-engineering enzyme catalysts by immobilization on nanomaterials represents a simple but effective route. In this presentation, I would like to introduce the self-assembly process in aqueous solution to prepare enzyme-inorganic crystal hybrid nanocomposites and enzyme-incorporated metal-organic frameworks with high enzymatic activity and stability. We proposed that these enhanced enzymatic activities and stabilities can be attributed to the well-designed specific interactions between immobilization nanocarriers and enzymes. The preparation of novel type of nanostructured enzyme catalysts and understanding the origin of enhanced activity and stability may provide new insights and inspiration to design efficient enzyme catalysts for practical applications.

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