

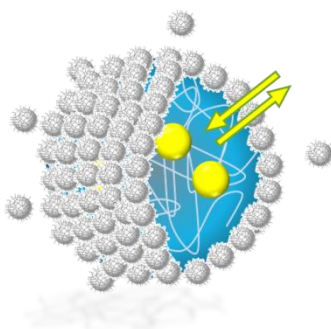


PhD Offer

Stimuli-responsive nanogels assemblies for the preparation of biosensors/bioreactors

Nowadays, colloidal assemblies in aqueous medium produces more and more sophisticated structures, capable to mimick biological cellular structures. Confining chemical and biochemical reactions in compartments gives an additional step towards cellular biomimicry. Based on this concept, it is possible to produce innovative bioreactors or biosensors.

An original strategy consists in exploiting micrometric stimuli-responsive capsules obtained via the self-assembly of nanogels or via water-in-water or multiple emulsion stabilization, which can encapsulate fragile molecules such as enzymes. These newly created capsules open new routes towards the preparation of materials able to interact with their environment.



Keywords: Colloids, Self-assembly, Stimuli-responsive, Nanogels, Enzymes

Applicant profile: Background in physical chemistry, colloids and polymers.

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