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Synthesis and structure formation in dilute aqueous solution of a chitosan-DNA hybrid

Ilyes Safir¹, Kien Xuan Ngo¹, Jancy Nixon Abraham¹, Majid Ghahraman Afshar¹, Ewa Pavlova² and Corinne Nardin¹ ¹University of Geneva, Switzerland ²Institute of Macromolecular Chemistry, Czech Republic

In the following is described the combination of straight biochemical and organic routes to graft nucleotide sequences to a chitosan backbone. The resulting chitosan-g-ssDNA hybrid self-assembles into submicrometer size structures in dilute aqueous solution as assessed by atomic force and electron microscopy imaging. The hypothesis of self-assembly driven by chemical incompatibility between the amphiphilic chitosan and nucleic acid grafts is supported further by stability of the self-assembly against ionic strength and pH variations.



Biography

Ilyes Safir, worked two year as a scientific assistant at the Federal Institute for Materials Research and Testing (BAM) in Berlin-Germany, afterward, he went to the University of Geneva- Switzerland to pursue his PhD until the age of 33 years. Now he is teaching mathematics and physics in private high School.

ilyes.safir@gmail.com