

## FACULTÉ DES SCIENCES

SECTION DES SCIENCES DE LA TERRE ET DE L'ENVIRONNEMENT INSTITUT FOREL Groupe de Physico-Chimie de L'environnement 19, route de Suisse CH-1290 Genève, Switzerland http://www.unige.ch/forel/Physico-chimie1\_en.html Dr Serge STOLL Tél. +41-(0)22 379 0333 (direct)

Tél. +41-(0)22 379 0333 (direct) E-mail: Serge.Stoll@unige.ch

## PhD Position in Geneva, Switzerland

## **Computer Simulations of Nanoparticle-Polyelectrolyte Complex Formation**

Using computer modeling the overall objective of this PhD position will consist to develop an existing code using **Monte Carlo Methods** for the modeling of manufactured nanoparticle behavior in aquatic systems \*.

This PhD position will take place in the framework of a project funded by the Swiss National Fundation and FP7 project on the Importance of Complexation Processes on the Fate, Reactivity and Transport of Manufactured Nanoparticles in Aquatic Systems. The PhD student will be part of the Environmental Physical Chemistry group at the Institute Forel (<u>http://www.unige.ch/forel/Physico-chimie1\_en.html</u>) and will participate to our teaching activities in environmental chemistry.

## Starting date: September-November 2012

<u>Required profile</u>: background in physical-chemistry, or mathematics and computer simulations, or soft condensed matter, or Environmental Sciences.

Candidates are encouraged to contact: serge.stoll@unige.ch

Adsorption of weak polyelectrolytes on charged nanoparticles. Impact of salt valency, pH, and nanoparticle charge density. Monte Carlo Simulations by Fabrice Carnal and Serge Stoll, in the Journal of Physical Chemistry B, 115, 12007-12018 (2011).