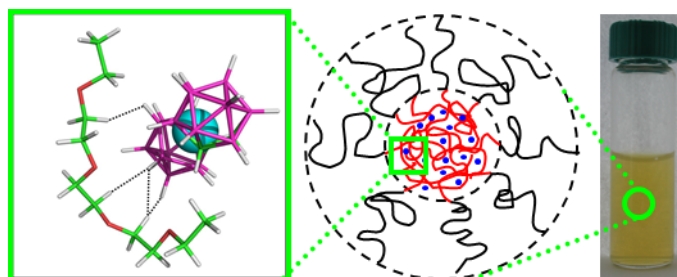


STARS

Faculty of Science, Charles University in Prague, Czech Republic

Call for applications – PhD projects

Polymeric Nanostructures Containing Boron Compounds



Research group: SOFT MATTER, Dept. of Physical and Macromolecular Chemistry

PhD project supervisor: **Pavel Matějček, Ph.D.**

Abstract:

An up-to-date application of boron-containing compounds for medical use is far beyond using, for example, boric acid as ophthalmic solution. The current interest of medical chemists is targeted on boron-rich compounds suitable for a treatment of cancers (BNCT), on investigation of carborane compounds as lipophilic pharmacophores, or on a rational design of biologically active molecules based on carboranes and phenylboronic acids. In spite of recent progress, there is still great unexplored potential in nano-research of boron compounds. The PhD-project is aimed at experimental studies of the self-assemblies in solution and in solid state based on polymers with boron-containing moieties or polymeric complexes with low-molar-mass boron compounds with a potential in medical applications. We are dealing with both inorganic boron clusters like boranes, carboranes and metallacarboranes, and organic compounds based on phenylboronic acids. Skills in nanochemistry and simple synthetic chemistry are welcomed!

For more info about STARS and to apply, please, go to <http://www.stars-natur.cz/>

...or ask me directly via email: pavel.matejcek@natur.cuni.cz

Deadline for application is February, 29, 2016.