



Wageningen University



Graduate Course on **Speciation and Bioavailability**

A new edition of the postdoctoral course on Speciation and Bioavailability is scheduled for **12 - 16 April 2010**. PhD students and postdocs who are entering the field or want to deepen their knowledge on the subject are invited to apply for participation. Candidates from all over the world are welcome. The course venue will be in or near **Wageningen/The Netherlands**, a small town with an easy-going university atmosphere.

The course program will focus on the analytical and physical chemistry of metal ions in complexing aqueous environments and the bioavailabilities of different species. Due attention will be given to the speciation and bioavailability of organic compounds. Modern analytical speciation techniques such as DGT, PLM, DMT, stripping voltammetries, ligand exchange methods, SPME, radiotracer techniques, etc. will be discussed in methodological detail. The thermodynamic background of metal ion binding by simple ligands, macromolecular complexing agents, colloids and nanoparticles will be a key topic. Known equilibrium speciation codes will be tested in interactive exercises. Dynamic features of complex systems, including their lability characteristics, will be discussed on the basis of the underlying reaction kinetics and the pertinent molecular transport conditions. Rates of biomembrane transfer processes will be evaluated in terms of their physicochemical principles, and illustrated by a couple of case studies on metal uptake by animals and plants.

The program is concluded by a session in which participants present their own research topics within the framework of subjects discussed in the course. The various sessions are led by a small international team of specialists. As much as possible, the lectures will be of an interactive nature.

The fee is € 250 for PhD students and € 400 for postdocs. Single-room accommodation with full board will cost approximately € 110 per night. Pre-registration is strongly recommended; send your message of interest to the course director, Prof. Herman P. van Leeuwen at herman.vanleeuwen@wur.nl.