



The LAQUA - research group

The LAQUA-group is a research group at present with three senior researchers and six PhD-students. More information can be obtained at <http://www.kk-laqua.hik.se/>, http://www.kk-laqua.hik.se/pp&kristianstad_frames.htm, http://www.kk-laqua.hik.se/kk-laqua_frames.htm

Seniors

Professor William Hogland, department of Technology, Kalmar University, Sweden

Professor Lennart Mathiasson, department of Analytical Chemistry, Lund University, Sweden

Professor Bo Mattiasson, department of Biotechnology, Center of Chemistry & Chemical Engineering, Lund University, Sweden

Dr Lennart Mårtensson, School of Engineering, Kristianstad University, Sweden

PhD-students

Lars Thörneby, Kalmar University/Lund University

Staffan Bergström, Kristianstad University/Lund University

Pille Kängsepp, Kalmar University/Lund University/Tartu University (Estonia)

Britt-Marie Svensson, Kristianstad University/Lund University

Diauddin R. Nammari, Kalmar University/Lund University

Richard Westbom, Lund University

Within this group there are large experiences of research, education and technology directed towards environmental problems. Together the group has more than 30 years gained skills of this type of work. The work within the group is directed towards water and waste management, especially concerning problems related to municipal and industrial landfill sites. Leachate water, sediment problems and the risk of air-transported organic pollutants from such landfills are considered in several projects in this area in Sweden and in the Baltic countries. The work is directed towards the development of cost effective, sustainable systems for handling these problems. Current work on leachate has been presented at The 1st International Symposium on Environmental Problems in the Baltic Region States – Environmental friendly treatment technology for waste water in the Baltic region, Sept 2001, Siauliai, Lithuania and at Kalmar Eco-Tech, Nov, 2001.

High competence has been developed for studying and measuring efficiency of pollutant removal in different treatment systems. Facilities for laboratory studies and pilot plant studies have been built within the group in co-operation with small size enterprises in the region. Furthermore, development work is in progress concerning sampling, sample work-up and final analysis of especially organic pollutants as PCBs, phthalates and brominated flame retardants as well as field studies concerning the efficiency of different treatment systems for leachate from landfills. Studies are in progress concerning the efficiency of natural treatment systems with aeration ponds, irrigation areas with energy forest and geofilters for pollutant removal. We have strong reason to believe that such types of systems are quite efficient and also economical possible for developing countries. Similar types of systems are now under investigation at four different landfill sites in Sweden.

Several departments are associated to the LAQUA-group including the university of Tartu in Estonia, University of Agriculture in Tartu in Estonia and Siauliai in Lithuania as well as by institutions which takes part in the Sida initiated Asian programme “Asian Regional Research Programme on Environmental Technology.



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The LAQUA-group also co-operates with several companies working on environmental technology on leachate problem funded by different sources. These companies include Laqua Treatment AB, Kristianstads Renhållnings AB, Kalmar Vatten AB, ASSY, Stena Miljö AB and Stena Gotthard AB.