UNIKL
University of Kaiserslautern
Kaiserslautern, Germany

ABOUT

UNIKL is a medium-sized university founded in 1970. It currently consists of 12 departments, ranging from mathematics and business studies and economics, computer sciences and electrical and computer technology over mechanical and process engineering, biology, chemistry and physics to architecture, regional and environmental planning, and social sciences.

The university has 13 725 students, of whom 3636 are in distance studies. The scientific location of Kaiserslautern is also distinguished by the presence of multiple external research institutes of considerable reputation, including three facilities of the Fraunhofer network and the German Research Institution for Artificial Intelligence. All of these institutions maintain close links and even share staff with the corresponding departments of UNIKL, which is chairing the Science Alliance Kaiserslautern, a network of these research institutions.

The university conducts a number of international collaborations. It has successfully participated in projects funded under several EU Framework Programmes and has gathered comprehensive experience both as coordinator and partner in research networks and projects. Besides projects with national funding, the University of Kaiserslautern is also very active in the field of international research. In this context, the funding instruments available in the EU Framework Programmes play an important role.

The numerous individual fellowship grants and career integration grants won from Marie Curie are an impressive proof for the special focus that the UNIKL places on the support for and career promotion of young scientists. The UNIKL is well established and provides good service as the host Institution for young and experienced scientists alike.

EXPERTISE

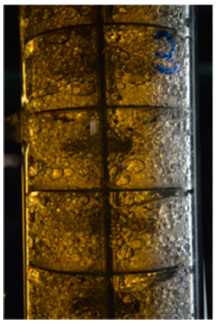
At the Chair, Separation Science and Technology unit operations as well as advanced procedures of fluid separations are covered in teaching and research. This interdisciplinary field has great technical and scientific impact for chemical and mining industry, environmental and apparatus engineering, food and pharmaceutical industry and many more. The focus is on polymeric heat exchangers, 2-phase flow, extraction, chromatography and other mass transfer operations, which are supported by third party funds activities.

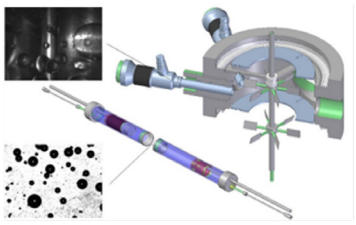
Current works are e.g. centred at populations-balances at reactive extraction, extraction of metals in micro-extractors, phyto-extraction from plant material, reactive bubble columns, analysis and prevention of droplet entrainment in gases and liquids, particle measurement techniques and image analysis as well as scaling/fouling of heat exchangers.

FACILITIES & SERVICES

The facilities include chemical laboratories (analytics: Raman microscope, UV-VIS, FTIR, AAS, GC, IC, HPLC, Zetasizer, etc.) with a robot system for liquids and solids extraction and a pilot hall with stirred/pulsed columns (DN 32 mm up to 450 mm) equipped with an appropriate analytics (e.g. telecentrical optical endoscopes, PIV, LIF, LDA/PDA, high speed cameras) and a heat transfer test rig (scaling, wetting, biofouling, heat transfer tests).

For high performance computing, the chair has access to the UNIKL computing cluster (CFD-software: Ansys-Fluent, OpenFOAM, etc.)





MORE INFORMATION

Website: www.uni-kl.de
www.uni-kl.de/tvt

Contact: Prof DI / Dr H-J Bart
bart@mv.uni-kl.de