
Analytical Science in Switzerland

EDITORIAL

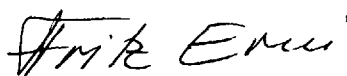
Analytical science provides an essential contribution to the development of chemistry and other natural science and is a substantial economic factor. The significance of analytical chemistry is reflected in the amount of practising chemists: *ca.* 20% assign themselves as working in analytical chemistry.

Switzerland is a traditional stronghold in analytical chemistry. One reason is certainly the structure of the Swiss chemical industry concentrating in research, development and production of highly sophisticated products, in the pharmaceutical, agrochemical and food industry. In these fields, analytical science plays a very important role. It is estimated that 60% of the overall cost in chemical and biological research in an industrial environment is attributed to analytical investigations. Modern chemistry without analytics would be like a blind marathon runner. Analytical chemistry is the eye of the scientist, bringing light into the dark of the unknown. It gives the chemist the needed information on the qualitative aspects of materials, details about the structure and quantitative information of how much of a certain material is present, about impurities and trace components. Modern technologies now come close to the dream of single molecule characterisation.

Under the patronage of the Section Analytical Chemistry (SACH) of the New Swiss Chemical Society (NSCG) experts from different fields of analytical science in Switzerland were invited to present their work in CHIMIA. This excellent overview demonstrates how wide the field of analytical chemistry is and how different tools are used to get information about structure, quantitative compositions and on the quality of commercial products. It also shows the variety of application from life science to speciality chemicals as well as the use of modern technologies in private laboratories, in 'Kantonal Laboratorien' and last but not least the importance of analytical technology as research tools in universities and other research centres.

Traditionally Switzerland was a top address in education in analytical chemistry not only at the level of universities but also in the technical universities. At present it looks like that the role of analytical science at the universities is not so clear any longer. There is still the very high need for experts of the Swiss chemical industry, where *ca.* 20% of all entering jobs are in analytical chemistry. There are definitely not enough students educated in Switzerland to meet this high demand. Switzerland very much depends on recruitment of analytical chemists from foreign countries. The new Competence Centers in Analytical Chemistry established in Zürich at the ETH and at the University of Geneva should strengthen education and research. In this issue of CHIMIA we will also find articles on the goals, structure and the organisation of these two Competence Centres in Analytical Chemistry in Switzerland. The strength of education in analytical chemistry at the university level is urgently needed because modern analytical science has only been fully successful in its application when very broad analytical concepts and specialised expertise are used in combination with modern analytical tools and technologies.

This issue of CHIMIA clearly shows that analytical science is of prime importance to Switzerland to keep its role as high tech industry player in this world.



Dr. Fritz Erni
Novartis Pharma AG, Basel

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