

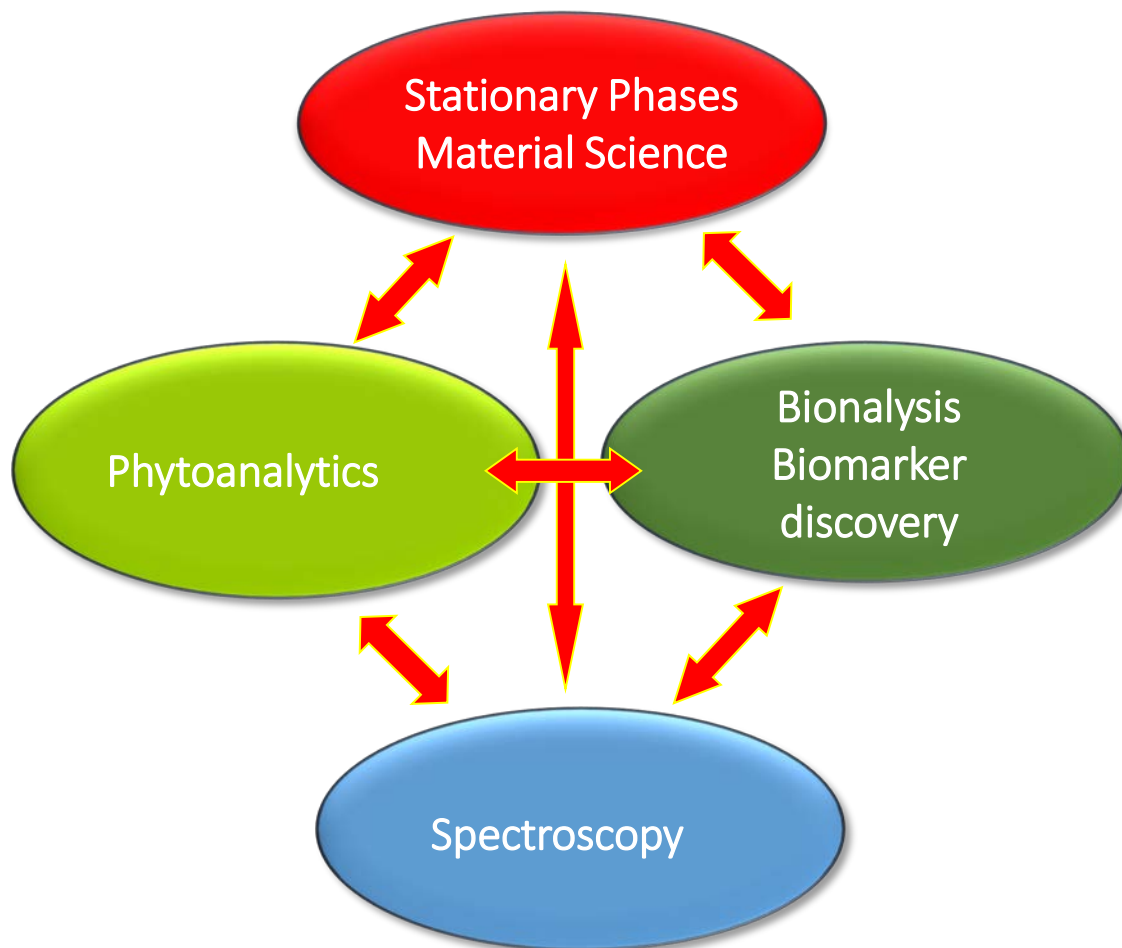
Analytical Chemistry

at the Leopold-Franzens-University of Innsbruck (Tyrol / Austria)

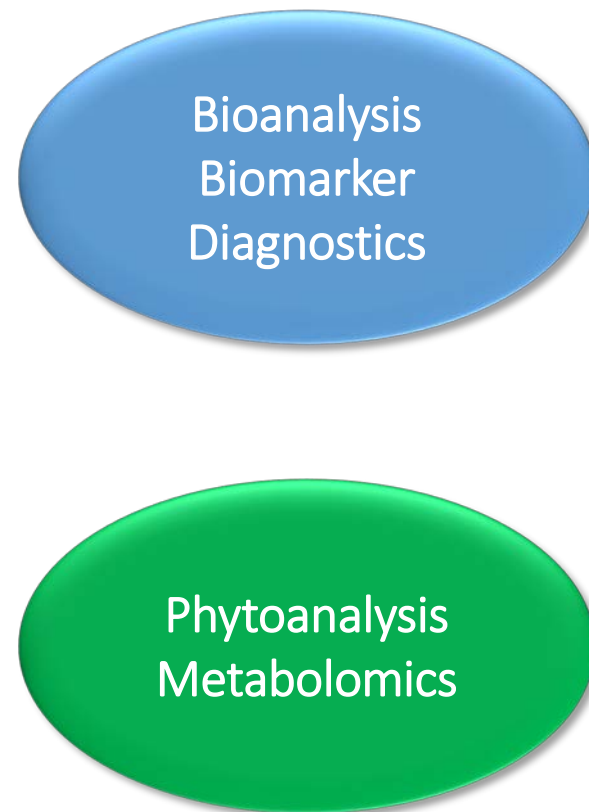
The Institute of Analytical Chemistry and Radiochemistry has a long-lasting experience on the synthesis, characterization and application of new materials, surfaces and stationary-phases for the analysis of biological, pharmaceutical and environmental samples. A major strategy is focused on the development of novel innovative analytical techniques in the fields of medicine, life sciences, phytoanalysis and spectroscopy. Phytopharmacy with its huge variety and complexity of plants is a permanently demanding challenge in analytical chemistry and permanently requires reliable and fast screening technologies. The move towards miniaturization in analytical chemistry has prompted the development of new formats in separation science and sample preparation technologies. High performance single- and multi-dimensional extraction and separation methods, such as solid-phase extraction, liquid chromatography or capillary electrophoresis coupled to mass spectrometry are applied for performing analytical studies in proteomics and metabolomics. Strong collaborations with industrial partners, national and international universities as well as with the Sino-Austrian Biomarker Center in Beijing and the Austrian Drug Screening Institute (ADSI) in Innsbruck are going on.

TOPICS – Institut für Analytische Chemie und Radiochemie

Innovations in Analytical Chemistry



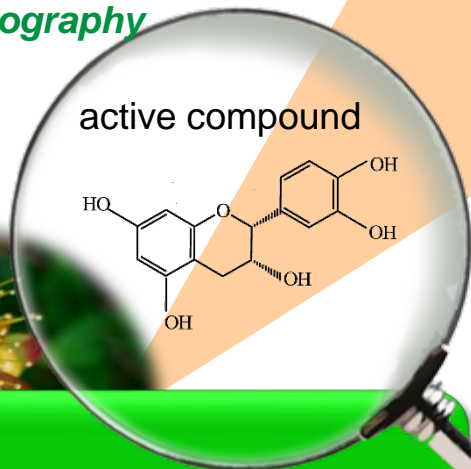
Application Fields



Analytical Chemistry allows exploring inaccessible areas in Phytopharmacy and Medicine

Analytical Chemistry provides the fundamental strategies and technologies of more or less all disciplines in natural sciences including phytopharmacy and medicine

analytical tools in phytopharmacy e.g. chromatography



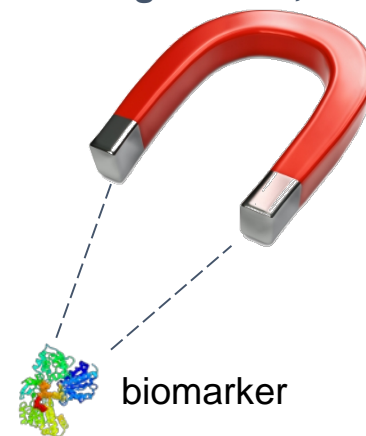
Phytochemistry

→ Screening of natural products
e.g. discovery of novel active compounds, quality control

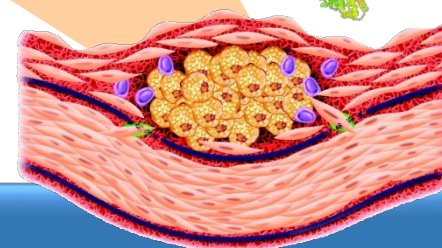
Analytical Chemistry

allows to see the nature

analytical tools in medicine e.g. LC-MS, SPE



biomarker



Medicine

→ Biomarker screening
e.g. discovery of novel disease markers, targets and leads