Analytica Acta-2013

OMICS Group Conferences
Accelerating Scientific Discovery

4th International Conference and Exhibition on
Analytical & Bioanalytical Techniques

October 15-17, 2013 Las Vegas, NV, USA

# HPLC-NMR: Present status and future

**Klaus Albert**
*University of Tuebingen, Germany*

## Abstract

The history of the progress in the hyphenation of High Performance Liquid Chromatography (HPLC) together with NMR spectroscopy is shortly reviewed. Starting from the first experiments in Tuebingen present achievements will be outlined. Current experiences with capillary microcoil NMR probes with detection volumes between 1.5 to 3.0 µL will be described. Experiments dealing with the on-line coupling of Supercritical Fluid Chromatography (SFC) and Gas Chromatography (GC) with NMR spectroscopy will be discussed. Future developments are the hyphenation of HPLC-Solid Phase Extraction (SPE) to NMR spectroscopy as well as the development of multiple-coil NMR detection.

## Biography

Klaus Albert, professor of chemistry at the University of Tuebingen (Germany) since 1996, performed his studies in chemistry at the Universities of Stuttgart and Tuebingen. He received his diploma in 1973 and his Dr. rer. nat. in 1976 from the University of Tuebingen. His research interests include natural product chemistry, stationary chromatographic phases, molecular recognition processes, and the hyphenation of chromatographic separation methods with NMR spectroscopy. His current number of peer-re-viewed publications is 260.

Since 1987 he is Visiting Associate Professor at the Department of Biochemistry at Tufts University, Boston, USA. In 1999 he was stipend of the Japanese Society for the Promotion of Science. In 2000 he received the “Jubilee Silver Medal” of the British Chromatographic Society and in 2005 the “Andrzej Waksmundzki Medal” of the Polish Academy of Sciences.