

Chiral Separations

Abstract

- 1) Fundamentals of stereochemistry and enantioseparations (45 min).
- 2) HPLC separation of enantiomers with the emphases on chiral ion-exchange materials (45 min)
- 3) HPLC separation of enantiomers with the emphases on polysaccharide-based materials (45 min)
- 4) Other liquid phase enantioseparation techniques with the emphases on miniaturized and fast techniques (capillary electrophoresis, capillary electrochromatography, nano-liquid chromatography and lab-on-a-chip approaches) (30 min)
- 5) Final discussion (15 min).

Biography Wolfgang Lindner

Wolfgang F. Lindner was appointed 1996 the Chair of Analytical Chemistry at the University of Vienna, Austria, and became Emeritus in 2012. His research interests were influenced by pharmaceutical (life) sciences and by separation sciences related to HPLC, SFC, GC, CE/CEC and MS. In this context special interests in his research relates to non-covalent molecular interactions and recognition phenomena within the frame of stereochemistry and enantiomer discrimination. The development of novel synthetic chiral selectors (receptors) useful for enantioselective separation techniques but also for bioaffinity chromatography lies at the interface of organic, analytical, and biological chemistry which characterizes best his scientific credo. In this context in 1978 he published his first paper on liquid phase enantioseparation, a theme which became a passion throughout his career. The spectrum of analytical applications spans from bioanalysis, amino acid/peptide analysis, environmental analysis to impurity analysis of bioactive compounds. He has published more than 500 scientific papers, 12 book chapters, holds 15 patents, etc. He has received a number of awards among them are the Chirality Medal, the ACS Award for Chromatography, the AGP Martin Medal, etc.

Biography Bezhana Chankvetadze

Bezhana Chankvetadze is Full Professor for Physical Chemistry and director of the Institute of Physical and Analytical Chemistry at the Tbilisi State University in Tbilisi, Georgia. B. Chankvetadze has published over 270 research papers in peer reviewed journals, over 30 review papers and book chapters and holds several patents of the former Soviet Union, USA, Germany and Japan. B. Chankvetadze has given over 300 presentations as plenary, invited or oral speaker on the international conferences in fields of chirality, electromigration techniques and separation science. He is the Editor of the Journal of Pharmaceutical and Biomedical Analysis (Elsevier) and a member of the editorial boards of Journal of Chromatography A (Elsevier), Journal of Chromatography Open (Elsevier), Electrophoresis (Wiley-VCH), Journal of Pharmaceutical Analysis (Elsevier), Journal of Separation Science (Wiley-VCH), Chirality (Wiley) and several other journals. He has over 12 600 citations according Google Scholar and his current H-index is 63. B. Chankvetadze is the recipient of "Journal of Chromatography Top Cited Article Awards" in 2005, 2006 and 2010, the recipient of "2006 Belgian Society of Pharmaceutical Science Award of Recognition", and the joint Csaba Horvath Memorial Award of the Hungarian Separation Science Society and Connecticut Separation Science Council, USA (2017). Prof. B. Chankvetadze is Full Member of the Georgian National Academy of Sciences.