

Editors' preface for the special issue "Recent advances in separation science"

Editorial

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It is a real pleasure and honor for us to announce the launch of this *Special Issue* on **Separation Techniques** from the rapidly growing international journal **Central European Journal of Chemistry**.

Modern analytical chemistry is expected to solve problems of increased complexity in all areas of science. Analytes have to be determined rapidly, accurately and precisely in complicated matrices and at extremely low concentrations. In this context modern **Separation Techniques** play a vital role. High Performance Liquid Chromatography, Gas Chromatography, Mass Spectrometry, Electrophoretic Techniques - just to name some - are considered to be the cornerstones of modern analysis in terms of efficiency, sensitivity and selectivity. The scope of this *Special Issue* of **Central European Journal of Chemistry** was to present to the scientific community a compilation of comprehensive review articles on all aspects of **Separation Techniques**.

Some interesting "numbers" about the special issue: it comprises 26 review articles from around the world. We think that it is interesting to analyze the "geography" of the issue, as we received, peer-reviewed and accepted articles from 13 countries, including: Spain (5), China (5), Poland (3), Portugal (2), Belgium (2), Czech Republic (2), Greece (1), Lithuania (1), Turkey (1), Germany (1), U.S.A. (1), Brazil (1) and India (1). It is also interesting to comment on the fact that almost 70% of the articles come from Europe, emphasizing on the "European" character of the journal.

In the next few lines we will try to introduce the scientific audience to this special issue. We are sure that the readers can find plenty of interesting articles within the pages to follow that cover many aspects and trends

of *Separation Techniques*. Liquid chromatographic techniques - as someone could expect - predominated the special issue, including for example review articles on recent advances in HPLC (Zotou) and Capillary Ion Chromatography instrumentation (Yang *et al.*), applications of Hydrophilic Interaction (Nozal *et al.*) and Micellar LC (Baczek *et al.*) in pharmaceutical analysis and theoretical considerations of two-dimensional LC (Jandera). Articles on electrophoretic techniques include discussion on the instrumentation progress of Capillary Electrophoresis (CE) coupled to electrochemical detection (You *et al.*), applications of carbon nanotubes in CE and Capillary Electrochromatography (van Schepdael *et al.*) and applications of in-line sample preconcentration in CE (Chen *et al.*). Several interesting articles were focused on sample preparation techniques prior to chromatographic or electrophoretic analyses; representative reviews discussed the application of Molecularly Imprinted Polymers (MIP) in food analysis (Regal *et al.*) and in the extraction of active compounds from natural products (Blankert *et al.*), trends in miniaturized sample pretreatment for the analysis of organic compounds in environmental samples (Duarte *et al.*) and the applications of Ionic Liquids in microextraction (Padaruskas *et al.*). Finally, many articles were applications-orientated; analysis of aflatoxin species in foods (Bakirdere *et al.*), determination of COX-2 inhibitors in pharmaceutical and biological samples by chromatographic techniques (Starek *et al.*), polyolefin additives by RP-LC (González-Rodríguez *et al.*), amino-acids and vitamins by Thin Layer Chromatography (Mohammad *et al.*) and many others.

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