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26.6.2006

HPLC 2006

30th International Symposium & Exhibit on High Performance Liquid Phase Separations and Related techniques

17.–22. 6. 2006 San Francisco, USA

www.hplc2006.org

HPLC 2006 is the largest meeting in the US and the world dedicated to the needs and interests of analytical chemists, biochemists, molecular biologists and other practitioners of separation sciences. Special emphasis was put on pharmaceutical and life sciences (including proteomics, metabolomics, genomics, etc.) HPLC 2006 was held at the fabulous Marriot hotel in San Francisco.

HPLC 2006 consisted of two parallel lecture sessions, two vendor seminars as well as one poster session each day. There were approximately 1.300 symposium attendees. The total number of poster presentations was 551. The lecture sessions focused on high performance LC-MS, sample preparation, electro-driven separations, large molecule characterization, biochemical analysis, biological analysis, biopharmaceutical analysis and detection technology etc.

Our group had a poster presentation in HPLC 2006:

Amundsen LK, Nevanen TK, Takkinen K, Sirén H;

NEW METHODOLOGY IN ANALYSIS OF STEROIDS USING SOLID PHASE EXTRACTION AND MICELLAR ELECTROKINETIC CHROMATOGRAPHY.

Abstract
Steroid specific methodologies for monitoring body fluids are essential goals in clinical and doping analyses. The conventional GC-MS methods are laborious and time-consuming, since deconjugation, concentration and derivatization of the steroid analytes are required. More straightforward analysis methods are thus desired. Separation of androgenic steroids with micellar electrokinetic chromatography has been studied very little. The separation of endogenous alpha-epimers testosterone and epitestosterone has not been reported with any electroseparation techniques before. Here, a novel partial filling micellar electrokinetic chromatography (PF-MEKC) method for determination of three endogenous steroid hormones (androstenedione, testosterone, epitestosterone) and two synthetic anabolic steroids (fluoxymesterone, methyltestosterone) is introduced. Discontinuous solvent pair made of single-isomer sulphated gamma-cyclodextrins and surfactants sodium dodecyl sulphate and sodium taurocholate is exploited by using two different pseudostationary phases in the capillary. The fast steroid separation is completed in 10 minutes. The PF-MEKC method was used for pretreated human urine samples. The one of the new sample preparation methods allows determination of testosterone in male urine after enzymatic hydrolysis with beta-glucuronidase from *E. Coli*. It is based on a highly testosterone specific microscale immunoextraction prior to PF-MEKC. The other method allows simultaneous determination of testosterone and epitestosterone in male urine after the enzymatic hydrolysis followed by their quantification in urine samples.

HPLC 2006 was an important arena to present our research results. The symposium offered a great opportunity to discuss challenges in separation sciences with the world's leading experts.

I thank Suomalainen Konkordia-liitto and ISB for the generous travel grants.