separations

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Special Issue Reprint

Five Years of Separations

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Five years of Separations are celebrated by a collection of ten feature articles: one review and nine research articles on topics of current interest. Applications of Gas Chromatography for the Analysis of Tricyclic Antidepressants in Biological Matrices are presented focusing on novel extraction techniques and novel materials used for sample preparation due to the great demand for method development for the determination of TCAs in biofluids, especially for therapeutic drug monitoring. Original research articles include the following: 1. Insights into the Mechanism of Separation of Bisphosphonates by Zwitterionic Hydrophilic Interaction Liquid Chromatography: Application to the Quantitation of Risedronate in Pharmaceuticals. 2. A method based on micro-matrix solid-phase dispersion (μ-MSPD) followed by gas-chromatography tandem mass spectrometry (GC–MS/MS), developed to analyze UV filters in personal care products. 3. The performance of a vibratory shear-enhanced process (VSEP) combined with an appropriate membrane unit for the treatment of simulated or industrial tannery wastewaters. 4. A method for the analysis of thyroid hormones by liquid chromatography-mass spectrometry that was used for the dissolution testing of single- and dual-component thyroid hormone supplements via a two-stage biorelevant dissolution procedure. 5. A method involving the collection and determination of organic and inorganic gunshot residues on hands using online in-tube solid-phase microextraction (IT-SPME) coupled to miniaturized capillary liquid chromatography with diode array detection (CapLC-DAD) and scanning electron microscopy coupled to energy dispersion X-ray (SEM-EDX), respectively, for quantifying both residues. 6. The gas chromatographic retention behavior of 16 polycyclic aromatic hydrocarbons (PAHs) and [illegible]s on a new ionic liquid stationary phase, 1,12-di(tripropylphosphonium) trifluoromethanesulfonyl)imide (SLB®-ILPAH) intended for the separation of [illegible] which was compared with the elution pattern on more traditional stationary phases: a non-polar phenyl arylene (DB-5ms) and a semipolar 50% phenyl dimethyl siloxane (SLB PAHms) column. 7. The Multiple-Stage Precursor Ion Separation and High Resolution

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