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UPLC–MS Method for the simultaneous determination of pharmaceutical drugs in waste water samples

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A highly sensitive Ultra Performance Liquid Chromatography–Mass Spectrometry method has been developed for the identification and simultaneous determination of various pharmaceuticals in industrial waste water samples. The analyzed waste water samples were collected from different industrial waste of Riyadh City, Saudi Arabia. The binary mobile phase was used a mixture of acetonitrile and 0.1% aqueous solution of formic acid at a flow rate of 0.4 ml min^{-1}. Identification and quantitation of the analyzed drug samples were carried out using mass spectrometer equipped with electrospray ionization source operated in negative ionization mode. The linear range of the proposed method was found to be in the range of 18-270 ng ml^{-1} for all drugs with limit of detection in the range of 1.25 to 1.89 ng ml^{-1}.

Biography

Zeid A Al Othmanis an Associate Professor at the Department of Chemistry at King Saud University, Riyadh, Saudi Arabia. He received his BSc in 1997 from King Saud University and PhD degree in 2006 from Oklahoma State University, USA. His research has been focused on the application of chromatography separation methods in environmental, chemical and pharmaceutical studies, safe pollutants removal, synthesis of new silica based materials for separation (packing materials for chromatographic columns), development of new polymer membranes and their use in pervaporation for chemical separation and purification, nanomaterial based gas sensors, nanocatalyst and catalyst for petrochemical industry, etc.

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