Mass Spectrometric Identification of Noncovalent Complexes

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Mass spectrometry (MS) is gaining priority as analytical tool to analytical/organic/pharmaceutical chemists and biologist due to its appealing features like ease of sample preparation, operational simplicity and ease of spectral interpretation. Reactions are the heart and soul of chemistry and mass spectrometric technique holds the place at the crucial stage of analysis such as structural confirmation, purity determination, and conversion. Often interpretation/prediction of the desired product depends upon the understanding of the reaction mechanism. The MS techniques particularly EIMS is a solution provider towards this end through ‘ion fishing’ of charged species as reactive intermediates. However, revealing reaction pathways that proceed through noncovalent short lived species remains the challenging task and MALDI and ESI MS techniques are being increasingly used for the purpose that adds a new dimension to analytical techniques. This presentation will summarise about a special application of ESI-MS to ‘fish’ the noncovalent complex/ ion directly from solution phase to gas phase that gives insight into the reaction mechanism and proves it on the basis of trapped reactive intermediate.

Biography

Naisargee Parikh, a current Ph. D scholar from department of Medicinal Chemistry, National Institute of Pharmaceutical Education and Research (NIPER), India involved in the design and synthesis of anti-asthmatic drugs. She has completed her M.S. (Pharm.) from NIPER, India and having one patent and two papers published in international journals.