

Special Issue

Spectroscopic Probes of Ion-Molecule Interactions in the Gas Phase

Message from the Guest Editor

The range of applications of molecular spectroscopy is constantly expanding. Systems under study are ever more closely approximating species in solution while under complete control of temperature and composition. These tools allow for the characterization of ion-molecule interactions in complexes and clusters - especially when paired with mass spectrometry - employing techniques such as micro-solvation and solvent exchange, collision induced dissociation, cryogenic tagging, isotopic labeling and multi-photon excitations from one or multiple light sources. These improvements now allow us to address fundamental questions in fields ranging from fundamental physics to biology.

This special issue is meant to provide an overview of recent advances in optical spectroscopies in the frequency and time-domain, with an emphasis on the intersection of spectroscopy with mass spectrometry-based techniques. These include applications to a broad variety of fields: organic and inorganic reaction intermediates, ion molecule reactions, ionic salt and ion-solvent clusters, ionic liquids and biological molecules including non-covalent interactions with drug targets.

Guest Editor

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