Special Issue

Low Energy Interactions between Ions and Ultracold Alkali Atoms

Message from the Guest Editors

The study of low-energy ion-neutral collisions is fundamental to understanding the behavior, control, and applications of cold, atomic, molecular, and ionic gaseous systems. At long range, universal charge-induced polarization effects dominate the ion-neutral elastic, inelastic, reactive, and charge-transfer cross sections. Neutral alkali targets are of particular importance due to their ubiquitous use in cold atomic molecular and optical experiments, as well as their uniquely large polarizability.This Special Issue aims to highlight recent experimental and theoretical work in the field of low-energy ion-neutral studies, review progress, and discuss the outlook for future developments. Authors are invited to submit original research papers for the Special Issue as well as short, tutorial reviews emphasizing new developments not included in previous reviews.

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The scope of *Atoms* is deliberately wide and encompasses a large part of theoretical and experimental atomic,
molecular, nuclear, and chemical physics in order to encourage cross-disciplinary connections, while supporting the more traditional idea of individual subfields. The journal is also interested in papers concerning
the computation and compilation of data related to applications in the above areas. Details of experimental methods and codes are welcome. Your research is taken seriously and peer-reviewed with care. I encourage you
to contact me or any of the Editorial Board Members for further information.

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