

Special Issue

Interaction of Electrons with Atoms and Molecules in Ionized Environments

Message from the Guest Editors

Over the last decades, low-temperature plasma science and technology have attracted the attention of many research groups ranging from material development (semi-conductor and photovoltaic industries), to waste treatment, to air pollution control (atmospheric depollution), and to astrophysical environments (interstellar medium), and from nuclear fusion reactors to biomedical applications or recently to food processing. Articles in this Special Issue provide insight into the current theoretical approaches employed to describe electron-induced reactivity in atomic and/or molecular systems. Examples of calculations of cross-sections and related rate coefficients will be highlighted with a focus on their potential use in plasma science. In this Special Issue, papers from both communities of data basis and plasma are welcome. Research areas may include (but are not limited to) the theoretical calculations of cross-sections for various processes such as vibrational excitations, rotational excitations, electronic excitations, dissociative recombination, electronic attachment, and so on, highlighting their potential use in plasma-based applications.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

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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