



atoms

an Open Access Journal by MDPI



Current Developments and Applications of Atomic Structure and Radiative Process Investigations

Guest Editor:

Dr. Pascal Quinet

Physique Atomique et
Astrophysique, Université de
Mons, B-7000 Mons, Belgium ;
IPNAS, Université de Liège, B-
4000 Liège, Belgium

Deadline for manuscript
submissions:

closed (30 June 2018)

Message from the Guest Editor

Dear Colleagues,

The study of electronic structures and radiative processes in atoms, from neutrals to highly ionized species, has known a considerable development during the past decades, the new contributions arising both from experiment and theory.

On the experimental side, the recent developments allow now to measure atomic parameters with a very high accuracy. This is extremely useful to test the predictive power of theoretical models and to obtain a reliable absolute scale for spectroscopic data, such as radiative transition probabilities, for example.

On the theoretical side, an intense effort over the last years has been directed toward developing methods to accurately and simultaneously account for relativistic and correlation effects in many-electron systems, both effects being intertwined in heavy atoms and ions.

Accurate atomic structure and radiative data are an essential ingredient for a wide range of research fields as well as for major technological applications.



mdpi.com/si/11803

Special Issue



atoms



an Open Access Journal by MDPI

Editor-in-Chief

Dr. James F. Babb

Institute for Theoretical Atomic
and Molecular Physics, Center for
Astrophysics | Harvard &
Smithsonian, Cambridge, MA
02138, USA

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, ESCI (Web of Science), Astrophysics Data System, Inspec, CAPlus / SciFinder, INSPIRE, and other databases.

Journal Rank: CiteScore - Q2 (*Nuclear and High Energy Physics*)

Contact Us

Atoms Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/atoms
atoms@mdpi.com
[X@Atoms_MDPI](https://twitter.com/Atoms_MDPI)