



*atoms*

an Open Access Journal by MDPI



## Advances in Ion Trapping of Radioactive Ions

Guest Editor:

**Dr. Maxime Brodeur**

Department of Physics, University  
of Notre Dame, Notre Dame, IN  
46556, USA

Deadline for manuscript  
submissions:

**closed (30 May 2025)**

### Message from the Guest Editor

Since the seminal work of Wolfgang Paul and Hans G. Dehmelt that warranted them the 1989 Nobel prize in physics, ion traps have become ubiquitous. We find them in biology and medicine to identify protein; in chemistry where they are used to identify peptides and analyze crude oil composition; in quantum computing; as part of some of the most precise atomic clocks; and they are also used to confine antimatter.

Ion traps also found their way in nuclear physics where they are used to confine and manipulate ion beams as well as perform high precision mass measurements. These devices enable research that help us better understand where and how about half of the elements heavier than iron are produced; how the structure of the nucleus change with large neutron-to-proton imbalance; and what are the limits of the Standard Model.

This special issue will include original research papers, review articles, and short communications to provide an overview of the current advances in ion trapping for nuclear physics. These advances can include recent technical developments, new initiatives, and ideas as well as recent scientific results.

For more details: <https://www.mdpi.com/si/154687>



[mdpi.com/si/154687](https://www.mdpi.com/si/154687)

# Special Issue



*atoms*



an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Pascal Quinet

1. Physique Atomique et  
Astrophysique, Université de  
Mons, B-7000 Mons, Belgium  
2. IPNAS, Université de Liège, B-  
4000 Liège, Belgium

## 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