Special Issue

Research in Ion Trap

Message from the Guest Editor

This Special Issue aims to bring together recent advancements and innovations in the field of ion trap research, which has become an essential area of focus in quantum technologies, atomic physics, and chemistry. Ion traps serve as one of the most versatile and widely used tools for manipulating individual charged particles, enabling groundbreaking experiments in quantum information processing, precision metrology, and fundamental quantum mechanics. The issue will feature original research papers, reviews, and cutting-edge theoretical and experimental studies on ion trapping, precision measurement, quantum control, quantum computing, cold collision and chemistry, and the exploration of new ion trap technologies. Special emphasis will be placed on the development of scalable ion trap systems, novel techniques in quantum state manipulation, and the application of ion traps in quantum simulations and precision measurements. Through this Special Issue, we aim to highlight the critical role of ion trap research in pushing the boundaries of quantum science and technology, with contributions from leading researchers and experimentalists worldwide.

Guest Editor

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Deadline for manuscript submissions

30 September 2026

Atoms

an Open Access Journal by MDPI

Impact Factor 1.5
CiteScore 2.9

mdpi.com/si/267667

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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.

Editor-in-Chief

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