Preface

With the development of ultrafast laser technology, real-time observation and steering of nuclear and electronic dynamics on the atomic scale are now becoming available. When atoms and molecules are exposed to intense laser radiation, a variety of nonlinear processes and phenomena emerge become hot topics in atomic and molecular physics, optical physics, laser physics and strong field physics. In the past ten years, it is glad to see that this field has grown very fast in both experimental and theoretical aspects in China. Researches from China cover all the directions and topics including above-threshold ionization, nonsequential double ionization, high harmonic generation, attosecond metrology, image of atomic and molecular structure and dynamics, photoelectron holography etc. and play more and more important role in the progress of this fast advancing field-strong field atomic and molecular physics.

Thus, a special issue: ***Recent Progress of Atomic, Molecular and Optical Physics in Ultrafast Laser Fields***, contributed to **Journal of Atomic and Molecular Sciences (JAMS)**, has been timely edited to reflect the encouraging advance of this field in China. This special issue received a total of 10 original and insightful research articles from the active research groups in China. Papers of this special issue show new results of topics in ionization in strong laser fields, high-order harmonic generation, laser induced dissociation and alignment of molecules which have attracted much attention in recent years.

We express deeply the gratitude to the authors who sent us their high-quality research articles to contribute to this special issue. We also appreciate the enormous efforts from the reviewers and the Global Science Press. Their full supports make this special issue successful. We expect that this issue will attract much more attention from the researchers in China and worldwide as well. Finally, we sincerely hope that the readers will enjoy all the works presented in this special issue.

Edited by

Prof. Jing Chen

Institute of Applied Physics and Computational Mathematics, Beijing, China

Prof. Ruifeng Lu

Nanjing University of Science and Technology, Nanjing, China