

P R E F A C E

In view of the recent rapid growth in both experimental and theoretical studies of multi-photon processes and multi-photon spectroscopy of atoms, ions and molecules in chemistry, physics, biology, materials sciences, etc., it is desirable to publish an Advanced Series that contains review papers readable not only by active researchers in these areas but also by those who are not experts in the field but intend to enter the field. The present series attempts to serve this purpose. In this series, both theory and experiment are equally emphasized, and each review article is written in a self-contained manner by the experts in the area so that the readers can grasp the knowledge in the area without too much preparation.

The topics covered in this volume are multi-photon processes in atoms (Chapter 1) and in molecules (Chapter 4), multi-photon ionization and multi-photon ionization dissociation of molecules (Chapter 2), Raman spectroscopy applied to structural and conformational problems (Chapter 5) and laser-stimulated rate processes in the gas phase and on solid surfaces (Chapters 3 and 6). The editor wishes to thank the other authors for their important contributions. It is hoped that the collection of topics in this volume will prove to be useful, valuable and stimulating not only to active researchers but also to other scientists in the areas of biology, chemistry, materials sciences, physics, etc.

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