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Titolo	Advances in multi-photon processes and spectroscopy [[electronic resource]]. Volume 18 // edited by S.H. Lin, A.A. Villaey, Y. Fujimura
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Collana	Advances in Multi-Photon Processes and Spectroscopy ; ; v.18
Altri autori (Persone)	FujimuraY (Yuichi) LinS. H <1937-> (Sheng Hsien) VillaeyA. A
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Nota di contenuto	Contents; Preface; 1. Nonlinear Optics for Characterizing XUV/Soft X-ray High-order Harmonic Fields in Attosecond Regime Yasuo Nabekawa and Katsumi Midorikawa; 1. Introduction; 1.1. Nonlinear phenomena in XUV/soft X-ray region for ultrafast optics; 1.2. Autocorrelation measurement; 2. Generation of Intense Harmonic Fields; 2.1. Single atom response; 2.2. Propagation of the harmonic fields with pumping laser field: Phase matching; 2.3. Development of intense high-order harmonic generator; 3. Two-Photon Double Ionization; 4. Measurement of Attosecond Pulse Train with Two-Photon ATI 5. Interferometric Autocorrelation of APT with Two-Photon Coulomb Explosion 5.1. Similarity of APT with mode-locked laser pulses; 5.2. Why do we need interferometric autocorrelation?; 5.3. Two-photon Coulomb explosion; 5.4. Interferometric autocorrelation; 6. Summary and Prospects; Acknowledgements; References; 2. Signatures of Molecular Structure and Dynamics in High-Order Harmonic Generation

Manfred Lein and Ciprian C. Chiril a; 1. Introduction; 2. Theory of High-Order Harmonic Generation; 2.1. Basic theory; 2.2. Three-step model; 2.3. The strong-field approximation

2.4. Odd and even harmonics

3. Influence of Molecular Structure on HHG; 3.1. Ionization step; 3.2. Recombination step; 4. Dynamical Effects; 5. Conclusions; Acknowledgments; References; 3. Molecular Manipulation Techniques and Their Applications Hirofumi Sakai; 1. Introduction; 2. Theoretical Background; 3. Molecular Orientation with Combined Electrostatic and Intense, Nonresonant Laser Fields; 3.1. One-dimensional molecular orientation; 3.2. Three-dimensional molecular orientation; 4. Applications with a Sample of Aligned Molecules

4.1. Optimal control of multiphoton ionization processes in aligned I₂ molecules with time-dependent polarization pulses

4.2. High-order harmonic generation from aligned molecules; 5. Summary and Outlook; Acknowledgments; References; 4. Sum Frequency Generation: An Introduction with Recent Developments and Current Issues Mary Jane Shultz; 1. Introduction; 2. Electric Fields and Orientation Factors; 2.1. Fresnel factors and propagation direction; 2.2. Orientation factors; 2.2.1. Simplification of the orientation tensor; 2.3. Observed intensity; 2.3.1. Molecular examples; 3. Recent Developments

3.1. Absolute orientation determination with a reference

3.2. Orthogonal resonances; 3.3. Null angle; 3.3.1. Visible angle null, VAN; 3.3.2. Polarization angle null, PAN; 3.3.3. Connection with previous work; 3.3.4. Example; 4. Current Issues in Sum Frequency Generation; 4.1. Interfacial optical constants and bulk contributions; 4.2. Collective modes - a theoretical challenge; 4.3. Probe depth; 4.4. Nanoparticle SFG; 4.5. Time resolution; 4.6. Surface 2D imaging; 5. Selected Results; 5.1. Ions at aqueous surfaces: The case for surface H₃O⁺; 5.2. Interactions at nanostructured interfaces

6. Summary

Sommario/riassunto

This book presents the latest developments and issues in both experimental and theoretical studies of multi-photon processes and the spectroscopy of atoms, ions and molecules in physics, chemistry, biology and material science. It contains review papers suitable for both active researchers and non-experts who wish to enter the field. Special attention is paid to the recent progress of non-linear photon-matter interactions in atoms, molecules and interfaces: XUV/soft X-ray, high-order harmonic generation in attosecond regime, high-order harmonic generation, sum frequency generation, four-wave

2. Record Nr.	UNINA9910298523103321
Titolo	Challenging the Orthodoxy : Reflections on Frank Stilwell's Contribution to Political Economy // edited by Susan K. Schroeder, Lynne Chester
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Descrizione fisica	1 online resource (270 p.)
Disciplina	330 336 338.9 339.5
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Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Foreword -- Part I: Introduction -- Part II: Contesting Economic Ideas -- Part III: Teaching Political Economy -- Part IV: Economic Inequality -- Part V: Economic Policies -- Part VI: Cities and Regions -- Part VII: A Green Economy -- Part VIII: Conclusion.
Sommario/riassunto	Political economy focuses on issues that are fundamental to individual and collective well-being and rests on the proposition that economic phenomena do not occur in isolation from social and political processes. One leading Australian political economist is Frank Stilwell. Highlights of his work include concerns with the creation and use of wealth, inequalities between rich and poor, the spatial implications of economic growth, and the tensions between economic growth and the environment. Stilwell has been especially prominent in developing alternative economic policies, with seminal contributions to understanding the radical shift in Australian economic and social

policies since the early 1980s. He has also been a leader in the teaching of political economy to many cohorts of first-year university students. This collection, spanning these themes, honours Stilwell's contribution to Australian political economy after more than 40 years teaching at the University of Sydney. The book provides not only an opportunity to appreciate his contribution but also a greater understanding of these themes which remain of crucial contemporary relevance.
