

1. Record Nr.	UNINA9910789065903321
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Titolo	Electronic and nuclear dynamics in molecular systems [[electronic resource] /] / Yuichi Fujimura, Hirofumi Sakai
Pubbl/distr/stampa	Singapore, : World Scientific, 2011
ISBN	1-283-43326-5 9786613433268 981-283-723-X
Descrizione fisica	1 online resource (250 p.)
Altri autori (Persone)	SakaiHirofumi
Disciplina	541.22
Soggetti	Molecular dynamics Cell nuclei Electrons
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Basic concepts and fundamental dynamics. 1. Wavepacket. 2. Adiabatic and nonadiabatic treatments. 3. Quantum control by pulse shaping. 4. Multiphoton vs. tunneling ionization. 5. High-order harmonic generation (HHG). 6. Rescattering of electrons. 7. Above-threshold ionization (ATI). 8. Above-threshold dissociation (ATD). 9. Coulomb explosion. 10. Alignment and orientation. 11. Molecular chirality. 12. Molecular ADK theory for tunneling ionization rate. 13. Summary -- 2. Experimental setups and methods. 1. Laser-induced Coulomb explosion imaging. 2. High-order harmonic generation. 3. Molecular orientation and its observation -- 3. Theoretical treatments of wavepackets. 1. Generation of wavepacket and its propagation. 2. Numerical methods for wavepacket propagation. 3. Wavepacket propagation method in the scattering matrix framework -- 4. Molecular manipulation techniques with laser technologies and their applications. 1. Introduction. 2. Techniques for molecular alignment. 3. Techniques for molecular orientation. 4. Various applications with a sample of aligned or oriented molecules. 5. Concluding remarks -- 5. Electronic and nuclear dynamics in intense laser fields. 1. Electron-nuclei correlated motions in H[symbol]. 2. Interelectronic correlation in a

hydrogen molecule. 3. Reaction dynamics of carbon dioxide. 4. Benzene. 5. Fullerene. 6. Ejection of triatomic hydrogen molecular ions from hydrocarbons -- 6. Electron rotation induced by laser pulses. 1. Introduction. 2. Electronic ring currents generated by circularly polarized laser pulses. 3. Control of unidirectional rotations of [symbol]-electrons in chiral aromatic molecules. 4. Nonadiabatic effects of laser-induced [symbol]-electron rotation -- 7. Photoisomerization and its control. 1. Introduction. 2. Real-time observation of stilbene cis-trans isomerization. 3. Quantum control of retinal isomerization in bacteriorhodopsin. 4. Quantum control of retinal isomerization in rhodopsin -- 8. Quantum control of molecular chirality. 1. Molecular chirality transformation in a preoriented racemic mixture. 2. Pump-dump control via an electronic excited state. 3. Stimulated Raman adiabatic passage method. 4. Control of helical chirality. 5. Quantum control in a randomly oriented racemic mixture using three polarization components of the electric fields.

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#### Sommario/riassunto

In this monograph, the fundamental theories and methods, as well as experimental methods and results, of real-time observation of both nuclear and electronic motions in molecular systems are described.

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2. Record Nr.	UNISA996335543503316
Titolo	Country report Romania / / EIU, the Economist Intelligence Unit
Pubbl/distr/stampa	London, : The Unit, ©1995-
ISSN	2047-5713
Descrizione fisica	1 online resource
Soggetti	Roumanie - Conditions économiques - 1989- - Périodiques Roumanie - Politique et gouvernement - 1989- - Périodiques Economic history Politics and government Periodicals. Romania Economic conditions 1989- Periodicals Romania Politics and government 1989- Periodicals Romania Roumanie Conditions économiques 1989- Périodiques
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Periodico