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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	From the Contents: Molecular movies from molecular frame photoelectron angular distribution (MFPAD) measurements -- XUV lasers for ultrafast electronic control in H2 -- Ultrafast dynamics of hydrogen atoms in hydrocarbon molecules in intense laser fields: Hydrogen atom migration and scrambling in methylacetylene.
Sommario/riassunto	This book presents the latest developments in Femtosecond Chemistry and Physics for the study of ultrafast photo-induced molecular processes. Molecular systems, from the simplest H2 molecule to polymers or biological macromolecules, constitute central objects of interest for Physics, Chemistry and Biology, and despite the broad range of phenomena that they exhibit, they share some common behaviors. One of the most significant of those is that many of the processes involving chemical transformation (nuclear reorganization, bond breaking, bond making) take place in an extraordinarily short time, in or around the femtosecond temporal scale (1 fs = 10 <sup>-15</sup> s). A number of experimental approaches - very particularly the developments in the generation and manipulation of ultrashort laser pulses - coupled with theoretical progress, provide the ultrafast scientist with powerful tools to understand matter and its interaction

with light, at this spatial and temporal scale. This book is an attempt to reunite some of the state-of-the-art research that is being carried out in the field of ultrafast molecular science, from theoretical developments, through new phenomena induced by intense laser fields, to the latest techniques applied to the study of molecular dynamics.

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