

1. Record Nr.	UNINA9910416144003321
Autore	Bjørnholst Martin Alex
Titolo	Time-Resolved Photoionisation Studies of Polyatomic Molecules : Exploring the Concept of Dynamophores // by Martin Alex Bjørnholst
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-53629-7
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XXIV, 138 p. 54 illus., 43 illus. in color.)
Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053
Disciplina	541.35
Soggetti	Physical chemistry Inorganic chemistry Organic chemistry Chemistry, Physical and theoretical Chemoinformatics Physical Chemistry Inorganic Chemistry Organic Chemistry Theoretical and Computational Chemistry Computer Applications in Chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Introduction -- Chapter 2. Experimental Methods -- Chapter 3. Theoretical Methods -- Chapter 4. Results and Discussion -- Chapter 5. Concluding Remarks.
Sommario/riassunto	This book explores how structure impacts the dynamics of organic molecules in an extensive and impressive range of femtosecond time-resolved experiments that are combined with state-of-the-art theoretical approaches. It explores an area of molecular dynamics that remains largely uncharted and provides an extraordinary overview, along with novel insights into the concept of the dynamophore – the functional group of ultrafast science. Divided into four parts, this book outlines both experimental and computational studies on the VUV photoinduced dynamics of four cyclic ketones and one linear ketone,

the ring-opening and dissociative dynamics of cyclopropane, and the potential ultrafast intersystem crossing in three methylated benzene derivatives. Model systems for the disulfide bond and the peptide bond, both of which are related to the structure of proteins, are also investigated. This highly informative and carefully presented book offers a wealth of scientific insights for all scholars with an interest in molecular dynamics.
