Record Nr. UNINA9910298641303321 Autore Heiles Sven Titolo Dielectric properties of isolated clusters: beam deflection studies // Sven Heiles, Rolf Schafer London:,: Springer,, 2014 Pubbl/distr/stampa 94-007-7866-X **ISBN** Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (vi, 100 pages): illustrations (some color) Collana SpringerBriefs in Electrical and Magnetic Properties of Atoms, Molecules, and Clusters, , 2730-7751 541 Disciplina Soggetti **Dielectrics** Light deflectors Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "ISSN: 2191-5407." Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Molecular beam electric field deflection: experimental considerations --Molecular beam electric field deflection: theoretical description -- Case Studies -- Novel experimental tools -- Summary. A broad range of state-of-the-art molecular beam methods to Sommario/riassunto determine dielectric of clusters are presented. The experimental setup and underlying physical concepts of these experiments are described. Furthermore, existing theoretical models to explain the experimental observations are introduced and the possibility to deduce structural information from measurements of dielectric properties is discussed. Additional case studies are presented in the book to emphasize the possibilities but also drawbacks of the methods. Furthermore, two newly developed experimental tools are described which allow to

> experimentally determine dynamic polarizabilities and to manipulate the motion of neutral species using their known dielectric properties.