Record Nr. UNINA9910463148403321 Autore Schachar Ronald A. <1941-> Titolo The mechanism of accommodation and presbyopia [[electronic resource] /] / by Ronald A. Schachar Amsterdam, : Kugler Publications, 2012 Pubbl/distr/stampa **ISBN** 90-6299-858-5 Descrizione fisica 1 online resource (280 p.) Disciplina 617.7/55 617,755 Soggetti Presbyopia Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. 1. History of Accomodation and the Steep Profile -- 2. Mechanism of Nota di contenuto Accomodation -- 3. Aspect Ratio of Vertebrate Lenses Predicts Accommodative Amplitude -- 4. Anatomy and Physiology -- 5. Experimental Evidence -- 6. Mathematical Modeling of Accommodation -- 7. Presbyopia and Age-related Ocular Hypertension -- 8. Importance of Controlled Studies -- 9. The Steep Profile: A Fundamental Structure in the Universe -- 10. Summary. Sommario/riassunto The human eye is a remarkable optical device. In less than a second, a voung human eve can accommodate from infinity to closer than 10 cm. Accommodation occurs with minimal effort and can be rapidly repeated with no apparent evidence of fatigue. Unfortunately, maximum accommodation decreases throughout life and by the fifth decade leads to presbyopia, the inability to read at a normal working distance. Interestingly, the mechanism by which the human eye is able to adjust focus has been debated for over 300 years. No previous theory has been put forth that can account for all the physical chang