Record Nr. UNINA9910349512203321 Autore Pollet Bruno G Titolo Introduction to Ultrasound, Sonochemistry and Sonoelectrochemistry / / by Bruno G. Pollet, Muthupandian Ashokkumar Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-25862-9 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (46 pages) Collana Ultrasound and Sonochemistry, , 2511-123X Disciplina 541.3 Soggetti Chemical engineering Organic chemistry Physical chemistry Industrial Chemistry/Chemical Engineering **Organic Chemistry** Physical Chemistry Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Introduction -- Interaction between Sound Waves and Bubbles --Nota di contenuto Cavitation -- Physical and Chemical Forces Generated by Cavitation --Brief Accounts on Sonochemistry, Sonoluminescence and Sonoelectrochemistry. Sommario/riassunto This book provides an introduction to the fundamental and applied aspects of sonochemistry, discussing a number of basic concepts in sonochemistry, such as how ultrasonic waves interact with gas bubbles in liquids to generate cavitation, and how the high temperatures generated within cavitation bubbles could be estimated. It explains how redox radicals are produced and how to make use of both the physical and chemical forces generated during cavitation for various applications. Intended for academic researchers, industry professionals as well as undergraduate and graduate students, especially those starting on a new research topic or those new to the field, it provides a clear understanding of the concepts and methodologies involved in

ultrasonic and sonochemistry.