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Nota di contenuto	Theory of Sonochemistry -- Advances in Green Organic Sonochemistry -- Nanostructured Materials Synthesis Using Ultrasound -- Synthesis of Photoactive Materials by Sonication: Application in Photocatalysis and Solar Cells -- The Role of Ultrasound on Advanced Oxidation Processes -- Effects of Ultrasonic Disintegration of Excess Sewage Sludge -- Combined Microwaves/Ultrasound, a Hybrid Technology -- Ultrasound in Combination with Ionic Liquids: Studied Applications and Perspectives -- Synergy of Microfluidics and Ultrasound -- Sonochemical Reactors.
Sommario/riassunto	The series Topics in Current Chemistry Collections presents critical reviews from the journal Topics in Current Chemistry organized in topical volumes. The scope of coverage is all areas of chemical science including the interfaces with related disciplines such as biology, medicine and materials science. The goal of each thematic volume is to give the non-specialist reader, whether in academia or industry, a

comprehensive insight into an area where new research is emerging which is of interest to a larger scientific audience. Each review within the volume critically surveys one aspect of that topic and places it within the context of the volume as a whole. The most significant developments of the last 5 to 10 years are presented using selected examples to illustrate the principles discussed. The coverage is not intended to be an exhaustive summary of the field or include large quantities of data, but should rather be conceptual, concentrating on the methodological thinking that will allow the non-specialist reader to understand the information presented. Contributions also offer an outlook on potential future developments in the field.
