

SONOCHEMISTRY

New Opportunities
for Green Chemistry

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188pp

Feb 2017

Hardback: 978-1-78634-127-3

£66

Softback: 978-1-78634-150-1

£37



The application of ultrasound waves to chemical reactions — sonochemistry — has huge potential for innovation in eco-friendly and eco-efficient chemistry. *Sonochemistry: New Opportunities for Green Chemistry* first introduces the basics of ultrasonic waves and the history of sonochemistry before moving on to look at acoustic cavitation and the estimation of ultrasonic parameters. After this comes a discussion of the equipment needed for experimentation with sonochemistry. Finally there is an in-depth look at green sonochemistry in different fields of research, covering concepts such as new combinations of ultrasound with ionic liquids, microwave irradiation, enzyme combination, and sono-assisted electrochemistry. In conclusion, distinguished sonochemists from around the world share their opinions on the green sonochemistry, and their predictions in the field.

Undergraduate and graduate students in chemistry, and practitioners of ultrasonic technology will gain a unique insight into the opportunities and challenges facing sonochemistry today in its theoretical and practical implementation.

Readership: Undergraduate and graduate students in chemistry, and practitioners of ultrasonic technology.

Contents:

- Introduction
- Acoustic Cavitation
- Ultrasonic Parameters Estimation
- Ultrasonic Equipment
- Applications in Green Chemistry
- Conclusion and Outlook

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