



Springer

1st
edition2014, XVI, 474 p. 134 illus.,
53 illus. in color.**Printed book**

Hardcover

Printed book

Hardcover

ISBN 978-94-017-8922-6

£ 149,99 | CHF 200,50 | 169,99 € |

186,99 € (A) | 181,89 € (D)

Available

Discount group

Science (SC)

Product category

Contributed volume

Series

Biofuels and Biorefineries

Other renditions

Softcover

ISBN 978-94-024-0757-0

Energy : Renewable and Green Energy

Fang, Zhen, Xu, Chunbao (Charles) (Eds.), Xishuangbanna Tropical Botanical Garden, Kunming, China

Near-critical and Supercritical Water and Their Applications for Biorefineries

- Focuses on utilizing near-critical water and supercritical water in bio refineries
- Covers almost all aspects of near-critical water and supercritical water
- Contributed by leading experts in the area

The book provides fundamental chemistry and properties of near-critical water (NCW) and supercritical water (SCW), criteria and challenges/solutions in reactor design for NCW and SCW processes, and up-to-date reviews and practice of a wide range of their applications in bio refineries including: production of hydrochars from biomass, SCW oxidation (SCWO) for waste treatment, SCW gasification (SCWG) of biomass and waste for hydrogen and methane production, hydrothermal liquefaction of biomass, production of chemicals and SCWO of biofuels for energy. It also presents techno-economic analysis of hydrogen production via SCWG of biomass. The book will be highly essential for both academic researchers and industrial practitioners for developing novel bio refinery technologies and processes employing NCW or SCW for treatment of various organic waste streams and production of bio-energy and bio-based chemicals from bio-renewable resources. Prof. Dr. Zhen Fang is leader and founder of biomass group, Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, China. Dr. Chunbao (Charles) Xu is currently an Associate Professor of Chemical Engineering and NSERC/FP Innovations Industrial Research Chair in Forest Bio refinery at Western University, Canada.

Order online at springer.com/booksellers**Springer Nature Customer Service Center GmbH**

Customer Service

Tiergartenstrasse 15-17

69121 Heidelberg

Germany

T: +49 (0)6221 345-4301

row-booksellers@springernature.com



ISBN 978-94-017-8922-6 / BIC: THX / SPRINGER NATURE: SC111000

Prices and other details are subject to change without notice. All errors and omissions excepted. Americas: Tax will be added where applicable. Canadian residents please add PST, QST or GST. Please add \$5.00 for shipping one book and \$ 1.00 for each additional book. Outside the US and Canada add \$ 10.00 for first book, \$5.00 for each additional book. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent.