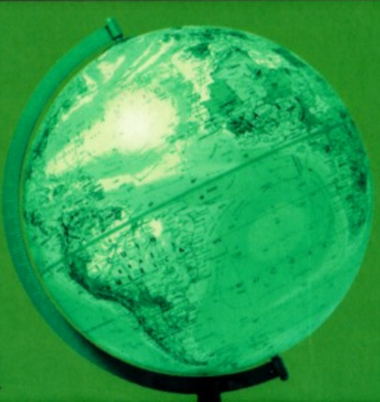
WILEY SERIES IN RENEWABLE RESOURCES

Thermochemical Processing of Biomass

Conversion into Fuels, Chemicals and Power

Second Edition

Edited by Robert C. Brown



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Contents

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Second Edition

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A comprehensive examination of the large number of possible pathways for converting biomass into fuels and power through thermochemical processes

Bringing together a widely scattered body of information into a single volume, this book provides complete coverage of the many ways that thermochemical processes are used to transform biomass into fuels, chemicals and power. Fully revised and updated, this new edition highlights the substantial progress and recent developments that have been made in this rapidly growing field since publication of the first edition and incorporates up-to-date information in each chapter.

Thermochemical Processing of Biomass: Conversion into Fuels, Chemicals and Power, 2nd Edition incorporates two new chapters covering condensed phased reactions of thermal deconstruction of biomass and life cycle analysis of thermochemical processing systems. It offers a new introductory chapter that provides a more comprehensive overview of thermochemical technologies. The book also features fresh perspectives from new authors covering such evolving areas as solvent liquefaction and hybrid processing. Other chapters cover combustion, gasification, fast pyrolysis, upgrading of syngas and bio-oil to liquid transportation fuels, and the economics of thermochemically producing fuels and power, and more.

- Features contributions by a distinguished group of European and American researchers offering a broad and unified description of thermochemical processing options for biomass
- Combines an overview of the current status of thermochemical biomass conversion as well as engineering aspects to appeal to the broadest audience
- Edited by one of Biofuels Digest's "Top 100 People" in bioenergy for six consecutive years

Thermochemical Processing of Biomass: Conversion into Fuels, Chemicals and Power, 2nd Edition will appeal to all academic researchers, process chemists, and engineers working in the field of biomass conversion to fuels and chemicals. It is also an excellent book for graduate and advanced undergraduate students studying biomass, biofuels, renewable resources, and energy and power generation.

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