



River Publishers Series in Energy Sustainability and Efficiency

## Green Energy Technologies for a Sustainable Future

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### Description:

This book examines the key aspects that will define future sustainable energy systems: biofuels, green nanomaterials and the production of bioethanol and bio-hydrogen from bio-waste. Bio-based fuels are the future energy carriers for internal combustion engines as they have lower environmental impact and higher efficiency. The book clearly illustrates the requirement for a unified engineering approach based on solid mathematical and engineering principles. Aside from the ecological advantages, support for sustainable energy can help the socioeconomic situation of developing countries by providing a consistent supply of new energy along with the generation of new job opportunities. The sustainable energy applications and existing contextual investigations provide useful guidance for the broad comprehension of the significance of sustainable energy.

Technical topics discussed in the book include:

- Thermochemical Conversion process;
- Catalytic conversion process;
- Rankine cycle;
- Nanomaterials;

**Keywords:** biofuels, nanomaterials, bioethanol, sustainability, green energy, biowaste, energy storage, sustainability, energy technology, bio-lubricants.