Nano- and Biocatalysts for Biodiesel Production
Avinash P. Ingle (Editor)

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DESCRIPTION

Reviews recent advances in catalytic biodiesel synthesis, highlighting various nanocatalysts and nano(bio)catalysts developed for effective biodiesel production.

Nano- and Biocatalysts for Biodiesel Production delivers an essential reference for academic and industrial researchers in biomass valorization and biofuel industries. The book covers both nanocatalysts and biocatalysts, bridging the gap between homogenous and heterogenous catalysis.

Readers will learn about the techno-economical and environmental aspects of biodiesel production using different feedstocks and catalysts. They will also discover how nano(bio)catalysts can be used as effective alternatives to conventional catalysts in biodiesel production due to their unique properties, including reusability, high activation energy and rate of reaction, easy recovery, and recyclability.

Readers will benefit from the inclusion of:

• Introductions to CaO nanocatalysts, zeolite nanocatalysts, titanium dioxide-based nanocatalysts and zinc-based in biodiesel production

• An exploration of carbon-based heterogeneous nanocatalysts for the production of biodiesel
• Practical discussions of bio-based nano catalysts for biodiesel production and the application of nanoporous materials as heterogeneous catalysts for biodiesel production

• An analysis of the techno-economical considerations of biodiesel production using different feedstocks

_Nano- and Biocatalysts for Biodiesel Production_ focuses on recent advances in the field and offers a complete and informative guide for academic researchers and industrial scientists working in the fields of biofuels and bioenergy, catalysis, biotechnology, bioengineering, nanotechnology, and materials science.

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**ABOUT THE AUTHOR**

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