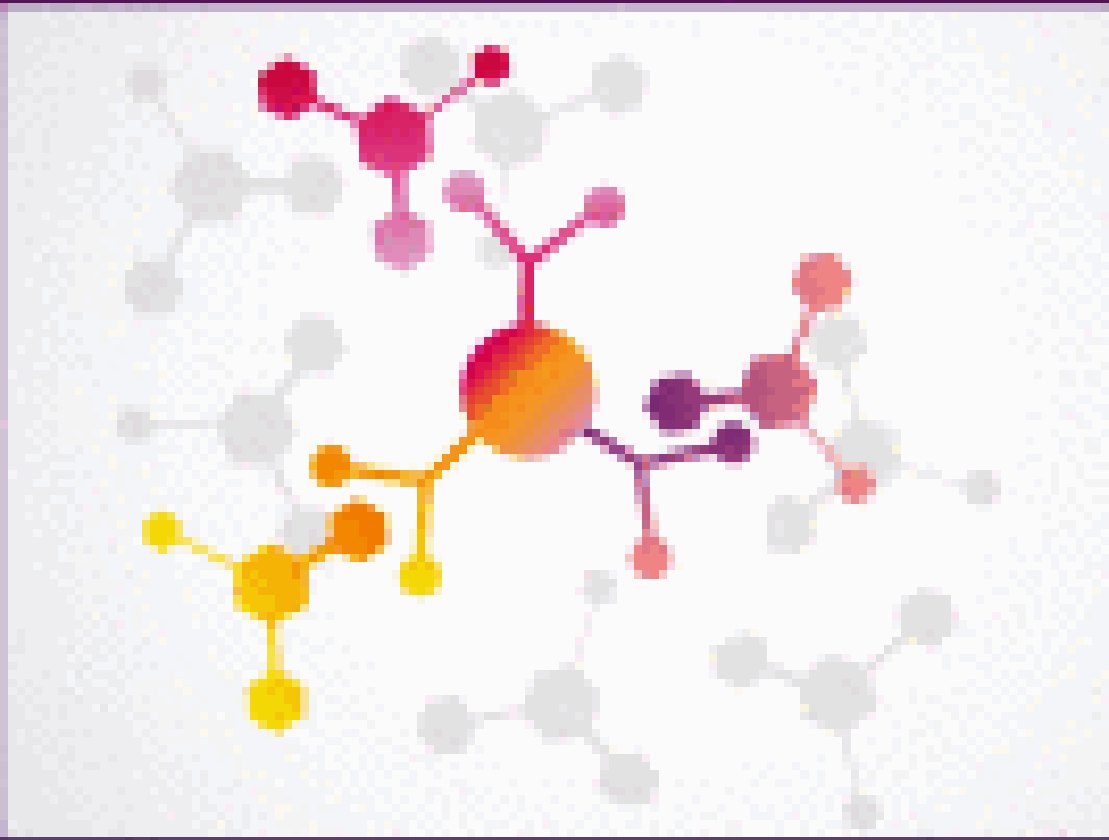
ADVANCED TECHNOLOGY FOR THE CONVERSION OF WASTE INTO FUELS AND CHEMICALS

VOLUME 1 : BIOLOGICAL PROCESSES



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Biological Processes

Volume 1

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ABSTRACT

The environment and ecosystem are currently encountering rising issues such as climate changes and global warming due to the continuous combustion of fossil fuel. This unremitting fuel and energy demand caused industries to turn toward biofuel for a more ecological and economic substitute. Biodiesel becomes a new trend for the industry to reduce greenhouse gases emission and dependency on the traditional petroleum-based diesel that is nonrenewable. Nevertheless, the production of biodiesel possesses several drawbacks such as wastewater production and limited cultivation area. Various types of alternative feedstock for biodiesel production known as the second-generation feedstock has been studied and recognized to have potential in overcoming the earlier generation of biodiesel feedstock. Therefore, this chapter is emphasizing on the conversion of the waste oil second-generation feedstock into biodiesel, which promotes a promising oil feedstock to encounter the limitations of the first-generation feedstock or edible vegetable oils in the biodiesel industry.

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