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| Autore                  | Islam Aminul  |
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| Descrizione fisica      | 1 online resource (180 p.)  |
| Collana                 | Thermal science and energy engineering collection   |
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| Livello bibliografico   | Monografia  |
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| Nota di bibliografia    | Includes bibliographical references (pages 127-158) and index.  |
| Nota di contenuto       | 1. Solid catalytic biodiesel production approaches -- 2. Nano to macroscopic catalytic progress in biodiesel -- 3. Intensification process in biodiesel production -- 4. Catalytic advances in third generation biodiesel from microalgae -- 5. Recent practice in biodiesel production -- References -- Index.   |
| Sommario/riassunto      | The inadequacy of fossil fuel is the main driving force of the future sustainable energy around the world. Interest in biodiesel is growing rapidly worldwide due to energy security, diversity, and sustainability as well as for greenhouse gas mitigation. Since heterogeneous catalysis is used in chemical industry for biodiesel production, achieving optimal catalytic performance is a significant issue for chemical engineers and chemists. Therefore, enormous attention has been placed in recent years on the selection of heterogeneous catalyst in biodiesel industry, where the catalyst could be facilitated highly selective toward desired products, easily handled, separated from the reaction medium and subsequently reused. This book stresses an overview on the contributions of tailored solid acid and base catalysts to catalytic biodiesel synthesis, and the influences of heterogeneous catalyst properties on biodiesel yield in order to develop a better understanding of catalyst design for the green production process as well as practical applications in the biodiesel industry. Coverage also includes the innovative and new techniques of biodiesel production processes currently used, illustrating the technological options and emphasizing |

the limitations factors for each technique, and the best choices available in a manner accessible to a general readership, biochemical engineers, academics, professionals, and industrial researchers.

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