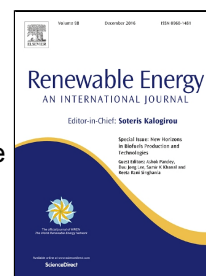


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Optimization and kinetics of biodiesel production from mahua oil using manganese doped zinc oxide nanocatalyst

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Highlights:

- ✓ Manganese doped zinc oxide nanocatalyst was found effective biodiesel production.
- ✓ The mahua oil was successfully transesterified to biodiesel with the yield of 97%.
- ✓ The structure of the nanocatalyst was confirmed by SEM and XRD.
- ✓ The produced biodiesel was confirmed by FT-IR and GC-MS analysis.
- ✓ Manganese doped zinc oxide nanocatalyst requires less activation energy.

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