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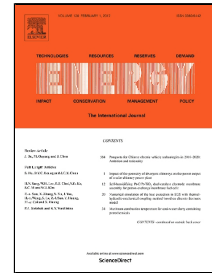
Numerical analysis of a compression ignition engine powered in the dual-fuel mode with syngas and biodiesel

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Highlights

- A CFD analysis of syngas-biodiesel combustion in a compression ignition engine is made.
- Syngas composition is evaluated by a thermochemical equilibrium model.
- The 3D engine model is preliminary validated for pure biodiesel operation.
- Biomass moisture and syngas amount affect energy efficiency.
- Syngas reduces NO formation but increases CO and soot w.r.t. pure biodiesel.

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