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Gasification of various biomasses including microalgae using ${\rm CO}_2$ – A thermodynamic study

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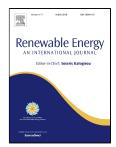
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ACCEPTED MANUSCRIPT

- A new integrated CO₂ gasification has been developed in the Aspen Plus.
- Prospect of microalgae (*N. oculta*) as a renewable energy source has been studied.
- The rice husk and the palm frond are used as the feedstocks for benchmarking
- The gasification of the microalgae exhibits the best performance in term of H₂/CO ratio
- CGE as compared to the gasification of other biomasses (palm frond and rice husk).



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