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Simulation Study of Bio-Methane Conversion into Hydrogen for Generating 500 kW of Power (Conference Paper)

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Abstract

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Research and development sectors have made great efforts for finding cleaner and greener supplements for fossil fuels. The uses of POME (Palm oil Mill Effluent) as feedstock of biogas production has attracted many industries to produce energy because this source (waste) is abundance and not fully utilised. Methane from biogas production has shown to have a significant potential to replace the depleting sources as it can be produced from renewable feed stocks. The main objective of this study is to produce hydrogen from methane obtained by digesting of POME and to transform bio-methane into hydrogen for generating 500 kW of electric power using a simulation software of SuperPro Design. © The Authors, published by EDP Sciences, 2018.

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