Stellenbosch University, Department of Process Engineering
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http://processengineering.sun.ac.za/

Title:	Simulation of biorefinery scenarios for sugarcane lignocelluloses, annexed to existing sugar mills
Abstract:	Biorefineries using sugarcane bagasse and harvest residues as lignocellulosic feedstocks have potential to revitalise the sugar industry. Annexing such biorefineries to existing sugar mills provides for integrated, efficient conversion of lignocelluloses to high value products. A selection of products/processes for inclusion in such biorefineries has been identified. Rigorous simulations for mass&energy balances, sizing of equipment and utilities, and economic viabilities of these alternative processes/products are developed. Alternative processes/products, and combinations thereof, are assessed through such simulation and modelling, to identify preferred products for biorefineries.
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Partner institutions:	-
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Supervisor name:	Prof JF Görgens
Degree:	PhD
Funded by:	Industry
Start date:	Jan 2016
End date:	March 2018
Feedstock:	Sugarcane lignocelluloses
Value chain products:	Levulinic acid, sorbitol, glucaric acid and polyethylene
Geographic source of the feedstock:	KZN, MP