

Title:	Co-production of lactic acid and ethanol in sugarcane lignocellulose biorefineries
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. The present project investigates the potential co-production of lactic acid and ethanol in such a lignocellulose biorefinery. Alternative methods for lactic acid production from hemicelluloses, combined with ethanol production from cellulose-rich residues, are optimised and compared experimentally.
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Degree:	MEng
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Start date:	March 2014
End date:	March 2017
Feedstock:	Sugarcane lignocelluloses
Value chain products:	Lactic acid, ethanol
Geographic source of the feedstock:	KZN, MP