Early Stage Design of a Bio refinery from Castor Oil.

This paper presents a systematic method for synthesis and analysis of biomass based biorefinery pathways (process networks) in terms of current and future market conditions. The systematic method has been implemented into a computer aided tool that is able to quickly evaluate alternatives and network scenarios. The tool integrates data collection, modelling and superstructure optimization to determine the optimal network for a biorefinery. The application of the synthesis-analysis method and its corresponding computer aided tool is highlighted for a case study where castor oil is the specified biomass available for the biorefinery.

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