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SYNTHESIS OF BIODIESEL FROM HYDROLYZATES OF *Arundo donax*

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Abstract

The oleaginous yeasts *Lipomyces starkeyi* were cultured in hydrolyzates of *A. donax*, a crop offering high productivity in marginal lands with no inputs of irrigation and agrochemicals. The triglycerides obtained from the *L. starkeyi* biomass were used as feedstock for the synthesis of II-generation biodiesel. The conditions of the lignocellulose hydrolysis and the yeast's growth were optimized to improve the yields in oleaginous biomass and lipids. The microbial lipids produced were compatible with the synthesis of an automotive-grade biodiesel.

Key words: *Arundo donax*, II-generation biodiesel, oleaginous yeasts

Received: April, 2012; *Revised final:* September, 2012; *Accepted:* September, 2012

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