

Accepted Manuscript

Review

Utilization of municipal solid and liquid wastes for bioenergy and bioproducts production

Paul Chen, Qinglong Xie, Min Min, Wenguang Zhou, Yuhuan Liu, Yunpu Wang, Yanling Cheng, Kun Li, Roger Ruan

PII: S0960-8524(16)30231-0

DOI: <http://dx.doi.org/10.1016/j.biortech.2016.02.094>

Reference: BITE 16144

To appear in: *Bioresource Technology*

Received Date: 1 January 2016

Revised Date: 19 February 2016

Accepted Date: 20 February 2016

Please cite this article as: Chen, P., Xie, Q., Min, M., Zhou, W., Liu, Y., Wang, Y., Cheng, Y., Li, K., Ruan, R., Utilization of municipal solid and liquid wastes for bioenergy and bioproducts production, *Bioresource Technology* (2016), doi: <http://dx.doi.org/10.1016/j.biortech.2016.02.094>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Utilization of municipal solid and liquid wastes for bioenergy and bioproducts
production

Paul Chen¹, Qinglong Xie¹, Min Min¹, Wenguang Zhou^{1,2}, Yuhuan Liu², Yunpu Wang²,
Yanling Cheng^{1,3}, Kun Li², and Roger Ruan^{1,2,*}

¹Center for Biorefining and Bioproducts and Biosystems Engineering, University of
Minnesota

²MOE Biomass Engineering Research Center, Nanchang University

³Key Laboratory of Biomass Resource Utilization, Beijing Union University

*Corresponding author, Yangtze Scholar Distinguished Guest Professor,
Nanchang University, and Professor, University of Minnesota, St. Paul,
Minnesota, USA. ruanx001@umn.edu

Abstract

Municipal wastes, be it solid or liquid, are rising due to the global population growth and rapid urbanization and industrialization. Conventional management practice involving recycling, combustion, and treatment/disposal is deemed unsustainable. Solutions must be sought to not only increase the capacity but also improve the sustainability of waste management. Research has demonstrated that the non-recyclable waste materials and bio-solids can be converted into useable heat,

Download English Version:

<https://daneshyari.com/en/article/7070882>

Download Persian Version:

<https://daneshyari.com/article/7070882>

[Daneshyari.com](https://daneshyari.com)